
In The
Supreme Court of the United States

October Term, 1964

— 0 —
No. 17, Original

STATE OF NEBRASKA, PLAINTIFF,

VS.

STATE OF IOWA, DEFENDANT.

— 0 —
**PLAINTIFF'S RESUME OF EVIDENCE
BEFORE THE SPECIAL MASTER
HONORABLE JOSEPH P. WILLSON**

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GENERAL HISTORY OF THE IOWA-NEBRASKA BOUNDARY PROBLEMS

Original Boundary and Litigation Between Nebraska and Iowa

The State of Iowa was admitted into the Union in 1846 with its westerly boundary as the "middle of the main channel of the Missouri River . . ." (Ex. P-2601). The State of Nebraska was admitted into the Union in 1867 with its easterly boundary described as "the middle of the channel of the said Missouri River" (Ex. P-2602). Over the years, the Missouri River has been notorious for the many natural changes and periodic flooding which occurred on numerous occasions. The result has been the creation of an alluvial plain between the bluffs on the Iowa side and the bluffs on the Nebraska side several miles in width, all of which has been part of the River from time to time. These changes have caused controversy and uncertainty all along the Iowa-Nebraska boundary.

In 1890 the State of Nebraska brought an original action in the Supreme Court of the United States against the State of Iowa to determine the boundary in the Carter Lake area. Although the Complaint (Ex. P-1722) in that action refers specifically to Carter Lake, allegations were made by the State of Nebraska that the Missouri was a river of the first class, navigable by steamers of heavy tonnage, it flowed through lands of soft sand loam, and its banks were not protected by rocks or the roots of trees or other matter against the operation of the waters. Its current was rapid, flowing from five to ten miles an

hour and its course was very circuitous, every few miles changing from one direction to another. The allegation was further made that the boundary or line dividing the States in the region described had never been settled, defined or established and people had settled in said lands and, because of the doubts excited by the disputes as to the boundary, defied the laws of both states.

Iowa answered in 1891 (Ex. P-1722) and, among other things, alleged:

“Further answering, and by way of additional defense the defendant says that the Missouri river is a river of the first class; that the amount of water which flows down it is very large and varies greatly in amount; that within the limits and termini of the meander line described in the bill, it flows through a plain bounded by bluffs, which are four or five miles apart. The whole of the plain between said bluffs is composed of soft, friable, sandy loam, not protected against the action of the water and very easily susceptible thereto. It readily and rapidly yields to the force of the current and the banks formed of it afford a very slight resistance to the changes that the rapidly flowing river is constantly making. This plain is also level, being as low at the base of the bluffs on either side as it is in the centre, and therefore the force of gravity does not help to confine the river to any certain part of it. The current of the Missouri river is very rapid, varying at different places and with the time of year, and the stage of the water from five to ten miles an hour. The river is subject to annually and semi-annually recurring freshets, usually occurring in June and April, popularly known as the ‘June rises’ and ‘April rises’ during which, for a few weeks, the amount of water flowing down the river is increased to many times

its ordinary and usual volume and the river leaves its accustomed channel and spreads over a large part of the plain. During these freshets the process of change is very rapid, especially while the water is subsiding. While the water is up over the banks, it frequently cuts through the necks of bends, entirely forsaking its former channel, and while it is subsiding, it cuts away its banks on one side and builds them up on the other as rapidly as ten to one-hundred and fifty feet within twenty-four hours."

Iowa also alleged that the bed in which the Missouri River flowed during the periods of low water each year was altogether uncertain, and that its real bed was the whole of the plain before described, and "It is liable to flow in any portion of said plain, and has, in fact, within the memory of man, flowed over nearly every portion of it, except a few hundred acres in the north-western angle of the Iowa meander line, and, in view of the history and character of said river and plain, will probably do so again within as short a period.

Iowa then described the movement of the river in the area in controversy as follows:

"The changes were so rapid that the river frequently cut away one bank and added to the other over one hundred and fifty feet in a single day and one hundred feet in twelve hours, and they were therefore perceptible, appreciable, and measurable. Strips of territory hundreds of feet wide and containing many acres, which at the beginning of the freshet were covered by the waters of the river, would within a few weeks or days be filled with earth and soil, and at the subsidence of the waters at the end of this short period appear as dry ground. Large

tracts of ground covering many acres in extent were cut away by the river in a few days, and the current would flow where these tracts had been, and later in the same year, the waters would rapidly recede, depositing earth, and the identical tracts would again become dry ground. At various points within the limits of the termini aforesaid, land which was on the Nebraska side of the river was cut away rapidly, and the current flowed where said land had been, and then during the next freshed (sic) the river changed its course, leaving the said land far removed from the new bed of the stream.” * * *

“And the defendant alleges that the changes and facts above set forth are characteristic of the Missouri river between the two States, and that similar phenoma (sic) have frequently taken place, and may, from the character and history of said river and plain, be expected to take place in the future.”

Iowa then alleged an avulsion and that it claimed jurisdiction over the land, maintained government thereon, and collected taxes therefrom and had asserted its authority and sovereignty over the land involved since the State of Iowa was admitted into the Union. Most of these same allegations were incorporated by Iowa into a cross bill.

In its opinion in the case of *State of Nebraska v. State of Iowa*, 143 U. S. 186 (Ex. P-2603), the court found that in 1877 the river above Omaha suddenly cut through the neck of an ox-bow and made a new channel and this constituted an avulsion. Consequently, the center line of the old channel remained the boundary between the states. The court went further and held that the usual principles concerning the laws of accretion and avulsion were applicable to the Missouri River, notwithstanding

the rapidity of the changes in the course of the channel. The court said that this was true not only in respect to the rights of individual landowners, but also in respect to the boundary lines between the states. The boundary line between Iowa and Nebraska remained a varying line, so far as affected by these changes of diminution and accretion in the mere washing of the waters of the stream except in such places where the stream suddenly abandoned its old and sought a new bed as an avulsion.

The decree is then found at 145 U. S. 519 (Ex. P-2604) wherein the court described this fixed boundary line in the abandoned channel by metes and bounds. This is the well-known area of Carter Lake, Iowa, which borders Omaha on the right bank of the present Missouri River.

Nebraska Legislative History Prior to 1943

Following the decision in the first case of *Nebraska v. Iowa* and commencing in 1901, the legislative history of both Nebraska and Iowa is replete with references to attempts to settle the boundary problems between the two states. In 1901 the Nebraska legislature passed an act authorizing the Governor of the State of Nebraska to appoint three commissioners on behalf of the state to jointly meet with a like commission from the State of Iowa in agreeing upon a boundary line between the said states (Ex. P-1851). In 1903 the Nebraska legislature passed another act authorizing the Governor of Nebraska to appoint three commissioners on behalf of the state to act with a like commission from the State of Iowa in agreeing upon a boundary line between the states (Ex.

P-1852). Again, in 1905, the Nebraska legislature adopted a resolution providing that the State of Nebraska would not claim title or ownership to lands then lying within the boundaries of the State of Iowa which have thereafter become within the boundaries of the State of Nebraska by virtue of the action of any commissions appointed by the states and ratified by the states (Ex. P-2301).

In 1913, the legislature of the State of Nebraska adopted an act providing for a boundary commission and the preamble states:

“Whereas, the original boundary line between the states of Nebraska and Iowa along the river front of Douglas and Sarpy Counties in Nebraska, and Pottawattamie County in Iowa was changed by the great flood of 1881 so that a part of the original state of Iowa has for over thirty years been on the west side of the present channel of the Missouri river and part of the state of Nebraska has been for over thirty years upon the east side of the present channel of the Missouri river, and

Whereas, under the rule of law in the United States, the state boundary in such cases still follows the old channel of the river unless an agreement is made between the states for its change, and

Whereas, it is desirable for both Iowa and Nebraska that the boundary line between the states be made to conform with the natural boundary of the Missouri river, . . .”

The act then authorized the Governor of Nebraska to appoint three commissioners to act with a similar commission appointed by the State of Iowa to ascertain and report the facts relating to the boundary as far as it re-

lates to Pottawattamie County and Douglas and Sarpy Counties (Ex. P-1853).

In 1915, the Nebraska legislature adopted a concurrent resolution again authorizing the Governor of Nebraska to appoint three commissioners to act in conjunction with a like commission from the State of Iowa, "this commission to remain in office until settlement is made between the states, and the proper boundary determined, or the commission is sooner dissolved by legal authority" (Ex. P-1854).

In 1919, the Thirty-seventh Session of the Nebraska legislature approved another concurrent resolution, again repeating the language about the great flood of 1881, but not mentioning any particular counties. The preamble states:

"Whereas, the original boundary line between the States of Nebraska and Iowa along the river front of counties bordering on, or through which the Missouri river flows, was changed by the great flood of 1881 so that a part of the original State of Iowa has for over thirty years been on the west side of the present channel of the Missouri and part of the State of Nebraska has been for over thirty years upon the east side of the present channel of the Missouri. . . ."

The Governor was authorized to appoint three commissioners to act with a similar commission appointed by Iowa and they were to report back relating to the boundary as the same relates to the counties of Iowa and Nebraska bordering on, *or through which* the Missouri River flowed (Ex. P-1855).

In 1941, the Fifty-fifth Session of the Nebraska legislature passed an act to establish the boundary

line in the center of the main channel of the Missouri River, but excepting Carter Lake by referring to the original action of *Nebraska v. Iowa*. This act was captioned "RELATING TO IOWA—NEBRASKA BOUNDARY." (Ex. P-1856).

Iowa Legislative History Prior to 1943

In Iowa, in 1902, a bill authorizing the Governor to appoint a commission to meet with a like commission from the State of Nebraska to agree upon a boundary line and report to the Governor was introduced in the senate and referred to committee, but no further action was taken (Ex. P-1790, P-1791).

In 1913, a provision was adopted by the Iowa legislature for the appointment of a boundary commission to act in conjunction with the commission from adjoining states under certain circumstances (Ex. P-1803). Also, in 1913, Senate Joint Resolution 9 was introduced, which provided for the appointment of a commission to ascertain and report facts relating to the existing boundaries between Iowa and Nebraska and the resolution had almost identical language to the 1913 Nebraska Act, Ex. P-1853 (Ex. P-1793). It was reported unfavorably and indefinitely postponed.

In 1923 Iowa passed a bill providing that the Governor appoint a boundary commission consisting of three disinterested persons. This bill provided:

"The boundary commission shall at once, upon its appointment, proceed to ascertain and report the facts relating to the existing boundary between the states of Iowa and Nebraska so far as the same re-

late to the counties of Iowa and Nebraska bordering on, *or through which* the Missouri river flows, to report drafts of compacts or agreements to be entered into by the states in settlement of said boundary. . . ." (Emphasis supplied.)

There was also a specific provision that the boundary as it then existed between Council Bluffs and Omaha at the point known as Carter's Lake be preserved (Ex. P-1796).

In 1927, the Forty-Second General Assembly of Iowa passed a bill to make an appropriation to pay the expenses of the boundary commission commenced under the acts of the Fortieth General Assembly (Ex. P-1798, P-1799). In 1935, a bill passed the Senate of the Forty-sixth General Assembly of the State of Iowa providing that the Governor shall appoint a boundary commission to act in conjunction with a similar commission appointed by the Governor of Nebraska to ascertain and report the facts relating to the existing boundaries between the States of Iowa and Nebraska "bordering on or through which the Missouri River flows" and to report drafts of compacts or agreements (Ex. P-1804).

In 1937, a bill was introduced in the senate of the Forty-seventh General Assembly of Iowa for an act to establish the boundary line between the State of Iowa and State of Nebraska and the proposed bill included the following language:

"* * * WHEREAS, there has for many years existed as between the State of Iowa and the State of Nebraska, a question as to the true and correct boundary line between said states; and

WHEREAS, it would be expensive and practically impossible, in view of the conditions as they now

exist, to locate the original boundary line between the State of Iowa and the State of Nebraska, the same having been established 'according to Nicollet's map'; and

WHEREAS, much of the land under dispute, except the Carter Lake district, is the harbor for criminals and squatters and is without police protection and educational facilities; and

WHEREAS, said lands remain unplatted and are not subject to taxation by either state; and

WHEREAS, the Executive Council of the state of Iowa, in the year 1935, acting under authorization duly given by the Legislature of the state of Iowa, appointed what was known as the Iowa Boundary Commission, which commission has heretofore made its final report; and

WHEREAS, said final report of said Iowa Boundary Commission indicates that the Missouri River channel is now relatively stabilized by work done under the direction and supervision of the United States Army engineers, and that a boundary based on the present main channel of the Missouri River would be, in all probability, fixed and permanent; and

WHEREAS, under the law, each state must agree to any new boundary wherever established; and

WHEREAS, said agreement, if any, between the state of Iowa and the state of Nebraska must be sanctioned by an Act of Congress;

NOW, THEREFORE . . ."

The act would have placed the boundary in the middle of the main channel of the Missouri River (Ex. P-1805). This proposal was referred to committee and no further action is shown.

In 1939, in the Journal of the Senate of the State of Iowa, reference is made to a proposal authorizing appointment of the Iowa-Nebraska Boundary Commission, which matter was deferred (Ex. P-1806). This is similar to the resolution passed in 1941 by the Iowa legislature providing that the Governor should at once appoint a boundary commission of three disinterested, competent persons to ascertain and report the facts relating to the existing boundary between Iowa and adjoining states and to report drafts of compacts or agreements to be entered into in settlement of the boundary (Ex. P-1807).

References in Newspapers and Periodicals Prior to the Compact

In addition to this legislative recognition of the boundary problems, references to the problems caused by the wild and unpredictable movements of the Missouri River have appeared in various publications and newspaper articles. The *Iowa Journal of History and Politics*, Volume XXI, published by the State Historical Society of Iowa in 1923 contained an article captioned THE LEGISLATION OF THE FORTIETH GENERAL ASSEMBLY OF IOWA, which article contained the following:

“The Missouri River has always been notorious for its meandering and there are tracts of land which are first on one side of the river and then on the other. The people who live there are sometimes uncertain whether they are inhabitants of Iowa or Nebraska, and so are the tax assessors. To settle the question, the Fortieth General Assembly created a Boundary Commission to draft a compact definitely

locating the boundary between the two States. This compact is to be submitted to the Governors and General Assemblies of Iowa and Nebraska for approval." (Ex. P-2696).

An editorial appeared in the Des Moines, Iowa, *Register* on December 22, 1925, with the caption WAR ON NEBRASKA. The editorial stated that some fifteen thousand acres of land were in dispute and a commission had been appointed to work out a basis of settlement. It then continued:

"... About 2,000 acres of former Iowa land now form a part of Dakota County, Nebraska and a corresponding area of former Nebraska land is in Woodbury County, Iowa. Homan's Island, opposite Onawa is on the Nebraska side of the river but is part of Iowa and its residents vote in Iowa. The D. D. Boyd farm in Harrison county, is completely surrounded by Iowa land and it is five or six miles from the river, yet Mr. Boyd is a resident of Nebraska. About 5,000 acres of land south of Council Bluffs also are involved, and there is an island comprising some 2,000 acres off Fremont County, Iowa, which is no-man's land.

All this is due to changes in the Missouri river channel. That is one thing which it is impossible to regulate effectively. The channel is likely to continue to change, but the human nature of which we hear so much has worked out governmental institutions which provide for orderly settlements of all the difficulties involved. The very difficulties have been minimized thereby. No one in Iowa is going to get excited over an impending loss of state territory; no one in Nebraska is going to demand forceful retention of the domain the river has alienated.

We shan't have war between Nebraska and Iowa . . ." (Ex. P-2500).

An article appeared in the Cedar Rapids, Iowa *Republican* dated January 2, 1927, entitled "FAIL TO FIX IOWA-NEBRASKA BOUNDARY". The article commences:

"The boundary commission appointed by Gov. John Hammill to investigate border disputes along the Missouri river, between Iowa and Nebraska, yesterday reported it had failed to reach an agreement on definite recommendations with the Nebraska commission appointed to make a similar investigation." (Ex. P-2690).

In 1927, an article by the Iowa Historian, Eric McKinnley Erickson, appeared in 25 *Iowa Journal of History and Politics*, 233, 235, which stated:

"This decision [Nebraska v. Iowa] settled for a time the boundary difficulties between Iowa and Nebraska, but the fickle Missouri River has refused to be bound by the Supreme Court decree. In the past thirty-five years the river has changed its course so often that it has proved impossible to apply the court decision in all cases, since it is difficult to determine whether the channel of the river has changed by 'the law of accretion' or 'the law of avulsion'. Where it has been possible to apply the decision awkward situations have resulted. For instance, East Omaha is legally in Iowa—in fact it is included in the corporation of Council Bluffs—yet it is located on the West side of the river in close proximity to Omaha, with which city its interests are much more closely united than with Council Bluffs." (Ex. P-2691).

On December 20, 1933, the *Omaha World Herald* carried an article captioned IOWA GOVERNOR WANTS BOUNDARY CORRECTED. It stated that Governor Clyde L. Herring of Iowa said he favors the establish-

ment of a more regular and natural boundary. The article also states:

“Because of the zig-zagging of the Missouri river in which once laid the boundary line between the two states, many families are now inconvenienced and many sections of land are cut off from their rightful political jurisdiction. . . . One of the families suffering from the tricky wandering of the Big Muddy is that of Mr. and Mrs. Fred Kinart whose five children are cut off from the education facilities because of their location on the Iowa side of the river on land which legally is now Nebraska.

Awaiting action in the Iowa Legislature now in special session is a bill providing for state aid in schooling the children of Iowa families similarly situated on the Nebraska side of the river. The bill, according to Senator Caroline C. Pendray of Jackson County, who is a member of the public schools committee has been recommended out of committee for passage and placed on the senate calendar.” (Ex. P-1537).

An article appeared on March 4, 1935, in the *Times-Republican*, Marshalltown, Iowa, which begins:

“Pranks played with the Iowa-Nebraska boundary line of the silt-laden Missouri river as it cut land off one state and added it to the other or left it stranded in its own broad channel, are to receive official attention of the two states.

A joint commission on which Nebraska already has named members and to which Iowa plans to do so today will be the Court in which an attempt will be made to settle ownership of the parcels of land involved. . . . Most of the areas involved are small and uninhabited, but the land suggested for trading also included the town of Carter Lake, Iowa, adjoin-

ing Omaha, Neb., and the desolate squatter domain near Sargent Bluff known as Flowers island." (Ex. P-2692).

The *Omaha World Herald* of March 4, 1935, contained an article entitled "Might Swap Carter Lake" and "Iowa and Nebraska Getting Together on River Boundary". The story is shown as coming from Des Moines, Iowa, and contained language similar to the article in the *Times-Republican*. It then continued:

"In their admission to statehood, Iowa's western and Nebraska's eastern boundaries were fixed as the middle of the main channel of the Missouri. But the troublesome ributary (sic) of the Missouri frequently changes its channel, and parcels of land thus segregated have caused supervision and taxation problems."

The article mentions that those active in seeking an agreement believed the Missouri River channel has been stabilized and a permanent exchange of ownership of isolated parcels of land would settle the questions. It mentions the squatter domain in Sargent Bluff known as Flower's Island and states:

"Jurisdiction over Flower's Island involves the question of whether the 11 thousand acre stretch is accretion land which the Missouri gave Iowa, or whether title literally should 'go back to the Indians,' inhabitants of a reservation in bordering Nebraska.

For a number of years the more than 50 children of Flower's island's 17 squatter families went without schooling.

Then Iowa, through permission obtained from federal authorities with the understanding the action would have no bearing on land claims of the two

states, sent in teachers this year to hold class in an old log building." (Ex. P-1536).

The case of *U. S. v. Flower, et al.*, will be discussed elsewhere in this brief, but at this point it should be mentioned the boundaries of the private property owners in the Flower's Island area were decided by the United States District Court in Nebraska in 1938 and the State of Iowa appeared and attempted to intervene in that action.

The *Omaha World Herald* of November 20, 1940, had an editorial entitled "Let's Fix the Boundary" in which the following statements were made:

"But between Nebraska and Iowa the boundary line is vague and irrational. Originally, that line followed the Missouri river. The river changed its course, but the lines stayed where it used to be. Now all up and down the river chunks of Iowa lie westward of it and pieces of Nebraska to the east.

Why don't we fix up this boundary line the way it ought to be? Army engineers have stabilized the river now so that it will not change course again. Nebraska and Iowa, two good neighbors, ought to get together and fix the boundary in the center of this stabilized river, and settle it once and for all.

Beginning in January, both Iowa and Nebraska will have republican governors. This strikes us as an admirable opportunity to do what both states for a long time have talked of doing. Governors Wilson and Griswold, are sponsoring the necessary legislation, can put an end to this business of children crossing the river to go to school; of Iowa land paying taxes in Nebraska and vice-versa; of some land going untaxed because nobody knows where it belongs." (Ex. P-1534).

On December 24, 1940, the *World Herald* had another article entitled "Action on the Boundary" which indicated that Attorney General Walter R. Johnson had started the ball rolling and discussed revision of the boundary with Iowa officials. The article then continued:

"All up and down the river there are tracts on one side which belong on the other. Tax problems, school problems and law enforcement problems result; and all could be solved by the simple expedient of fixing the boundary where it ought to be—in the center of the now stabilized Missouri river." (Ex. P-1535).

In the *TRANSACTIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS*, Volume 107, 1942, an article appeared entitled MISSOURI RIVER SLOPE AND SEDIMENT by William Whipple, Jr. His name also appears on the A. P. maps of the Missouri River. In this paper, he states:

"... The shifts of the river channel have been so numerous and intricate that at many points land known originally to have been in Iowa now lies on the Nebraska bank, and vice versa; and for practically all land adjacent to the river no conclusive determination of either state or private boundaries has been possible." (Vol. XIII, p. 1860).

Corps of Engineers Reports Prior to 1943

A very general history of the Missouri River can be found in the Annual Reports of the Chief of Engineers of the United States Army, printed by the United States Government Printing Office. These reports, or extracts from them, have been offered as Ex. P-2686 for the years 1877 through 1890, Ex. P-2689 for the years 1891 through

1919, Ex. P-2687 for the years 1920 through 1945 and Ex. P-2688 for the years 1946 through 1966. The first regulation works on the Missouri River by the Corps of Engineers were constructed at Nebraska City, Nebraska and Saint Joseph, Missouri, under the provisions of the River and Harbor Act of August 14, 1876. The first work at Nebraska City is described in the annual report of the Chief of Engineers of the U. S. Army for the year 1877. In discussing the proposed plan to change the direction of the current in the bend above Nebraska City, restoring it as nearly as possible to an old channel, Major Chas. R. Suter set forth a proposal to induce large deposits of sand by gradually obstructing and slackening the current and forming bars which would force the channel to follow the line desired and said:

“ . . . In carrying out this idea, I rely greatly upon the well-known instability of regimen of the Missouri River and the great rapidity with which natural causes are known to produce great changes . . . ”

The 1878 report also made reference to improvement at Nebraska City, Nebraska and Eastport, Iowa and said:

“The object of this improvement is to change the position of the river channel, in order to restore the water-front of Nebraska City, and to check a severe bank erosion of the Iowa shore near Eastport.”

The 1878 report also contained the statement:

“The survey made last year at this locality [Omaha, Nebraska and Council Bluffs, Iowa] showed that, owing to a recently formed cut-off, the banks of the river near Council Bluffs and Omaha were being eroded with very great rapidity, and that much valuable property, including the railroad-bridge over the Missouri

at Omaha, was threatened with destruction. A plan and estimate were submitted for the protection of the exposed bank near Omaha, where the threatened and actual damage was the greatest."

Attached to the 1878 report is a map of the Missouri River in the vicinity of Nebraska City made from surveys under the direction of Major Charles R. Suter in December, '76 & January, 1877 which shows Eastport Bend and the river going considerably away from Nebraska City and coming back towards Nebraska City from the East. It also shows Frazier's Island as attached to the Nebraska shore by accretion and the main channel is shown on the outside of a bend east of the island. Nebraska City Island is attached by accretion to the Nebraska side at that time. With reference to that work at Nebraska City is found the following:

"We built out to a distance of 758 feet from shore, and, to judge from the heavy cutting of the bank and the bars opposite, it seems plausible to assert that with a dike of 1,200 feet the channel would have been turned into the slough on the Nebraska side."

The 1878 report also has a description of the cut-off near Omaha which must be the Carter Lake Cut-Off and mentions that the channel and bars in the vicinity of Plattsmouth are subject to more radical changes than at almost any other portion of its course. The Assistant Engineer also made reference that:

"The neck of land between Pacific and Saint Mary's Bends is gradually becoming narrower, and a cut-off is imminent if the cutting continues, as there is no doubt it will.

In consequence of the cut-off at Omaha, which occurred in July last, the caving of the banks will be

more rapid, and will hasten the cut-off at Plattsmouth, which, if allowed to occur, would be disastrous in the extreme to the railroad companies and farmers below its location. Should, however, the cut-off be prevented from taking place, unless the upper side of the 'point' be also protected, Plattsmouth would in time lose its river-frontage from the gradual recession of the bends and their accompanying bars down stream."

The 1878 report mentions a survey intended to determine the cheapest and most feasible plan for the protection against the encroachment of the river of the Iowa bank immediately in front of the town of Sioux City and refers to a cut-off about two and a half miles above Sioux City by which the river shortened its course about one mile. It also referred to another cut-off which occurred about a year previously, and which shortened the river four miles at a point about twelve miles above the town. Reference is made to the fact that, owing to several cut-offs which have occurred above the town, the regimen of the river has been very much disturbed, producing an excessive slope and velocity besides directing the current against the town landing, which has been severely abraded. A map dated May, 1878, is attached showing the cut-off and "old River" just above Sioux City and Covington, Nebraska. The plan at Sioux City contemplated the construction of works necessary to prevent the steamboat landing from being destroyed.

Another map is attached to the 1879 report showing Nebraska City Island as accretion to the Nebraska shore and various shore lines on the Iowa side of the bend with the river considerably to the east of its present location.

There are miscellaneous references to cut-offs and

shifting channels in these reports. In the report of 1880 (Ex. P-2686) Chas. R. Suter, states with reference to the situation between Omaha and Plattsmouth:

“The situation in brief is this: The portion of the Missouri River under consideration is extremely tortuous and has a heavy slope, averaging 8/10 of a foot to a mile. The banks are very unstable and are subject to great erosion, the results of which is an excessive width of water way, with ever-shifting channels and small navigable depth. The incessant erosion on the narrow necks between bends has already caused two cut-offs, one at Omaha and another at Saint Mary’s, a few miles about the mouth of the Platte; and several others may be soon expected if measures are not taken to prevent them. The effect of cut-offs is to greatly increase bank erosion in the neighborhood and to impair the navigation over considerable distances. It is also desirable that a stable regimen be established through this stretch of river, as any changes here would have a very prejudicial effect upon the works of improvement now in progress at Omaha, above, and Nebraska City, below.”

In the report for 1881 (Ex. P-2686) the Assistant Engineer at Brownville, Nebraska stated:

“That portion of the reach between Otoe City and Peru was in 1867 and 1869 the scene of two remarkable cut-offs. The first was the more southerly and produced the greater effects, shortening the river by about 14 miles. The concentrated slope has been gradually distributed in both directions, but the slope above and below this cut-off is still excessive, from Peru to Brownville 1.1 feet per mile.

I am indebted to Captain Carey who was the pilot of the first boat passing up the cut-off, viz., Colorado, for the following information: ‘The neck was very narrow for a distance of 1000 feet, during a longtime

previous to the cut-off. Think it must have given way almost simultaneously throughout that distance. The cut-off occurred in the night. Left Peru the morning after the cut-off occurred. Knew nothing of the cut-off having taken place, and noticed nothing unusual until off the former neck. The cut-off had the appearance of a low reef or wier. Succeeded in passing up by following a slackwater chute on the east side. The current above the cut-off was very strong all the way to Nebraska City, the boat making only about one-third ordinary headway. One boat was sunk by the cut-off and another, after having traversed the old bend, was forced through the cut-off on attempting to pass it. One week after the cut-off took place, no difference in current above and below the cut-off was noticed.'

The second cut-off was merely a cut-off of the old neck, and forming Hog-thief Island. It is noticeable that the river now runs in the channel east of Hog-thief Island in a direction opposite to that in which it ran before the cut-off took place. Had this second cut-off occurred prior to the date of the first one, it is probable but that one cut-off would have occurred, leaving the river in a much better condition than it now is. The second cut-off must have had little, if any, effect on the slope as the channel length was not thereby changed appreciably."

This is the area immediately below the Schemmel land and appears on Ex. P-211, which is the 1890 Corps of Engineers map showing the area from Nebraska City south to McKissock's Island.

The 1881 report refers to a cut-off in the old Florence Bend leaving Florence Lake in the Omaha-Council Bluffs area, but this was back around 1825 and prior to admission of either state into the Union. Also mentioned is a

cut-off in 1835 then known as Hart's Cut-off and later known as Iowa Lake. Then reference is made to Cut-Off Lake resulting from a cut-off in 1877. This would apparently be the Carter Lake avulsion. Also the following statement is made:

“A very unfavorable result of the floods was the cut-off in Kansas City Bend April 26. This neck was about 1,200 feet wide when the survey was made in that vicinity last winter. On the upper side was about $3\frac{1}{2}$ miles of almost perfect river, having a narrow and deep section, and flowing in banks regarded as permanent for ten years previous. The river was shortened about $4\frac{1}{2}$ miles, and the difference of level on the two sides was about 31 feet.

A violent erosion of the Iowa shore opposite the cut soon resulted, and has not yet ceased.

This is the third cut-off between Omaha and the Platte River in the last three years.”

This same report discusses work at Sioux City and the Assistant Engineer mentioned a cut-off and the fact the river had regained the length lost when the cut-off occurred. The report also states:

“This reach is in a condition susceptible of permanent improvement at comparatively small cost; unless this is effected in the near future, the narrow necks of land with cutting banks will become a series of cut-offs which will cause changes of regimen and produce an unsettled condition of river above and below indefinitely.”

In the report of Major Chas. R. Suter, Major of Engineers, dated February 2, 1881, the following generalizations are made:

“ * * * It is navigable for nearly its whole length, for the portion above the Great Falls, near Fort

Benton, is already provided with several small steamers. . . The country through which the Missouri flows is mostly one of small rain-fall so that its really large discharge is due to the great area of its drainage basin and the mountain-snows and ice near its headwaters. Its most salient and striking features are the remarkable impetuosity of its current, and its slope, which is considerable for so large a stream. The rapidity of the current and the general instability of the banks and bed give rise to the excessive turbidity of its waters, which have earned for it the title of the 'Big Muddy'. It is, in fact, the greatest silt-carrier in the country, and the enormous mass of sediment which it brings forward forms the great bulk of that received by the Mississippi from its tributaries. . . The subject of its improvement, therefore, is not only of local interest, but is of the greatest general importance now that the improvement of the Mississippi is receiving serious consideration. . . The regular floods are two in number, and usually occur in April and in June. The first is extremely violent and of short duration, rarely lasting over a week or ten days; it seems to come largely from the upper river. The June rise, although generally higher, is of longer duration, being influenced by local rains and the general saturation of the soil. . . The rate of travel of the crest of these floods is, on an average, about six miles per hour. . . Both (rises) however, has sufficient power to produce tremendous effects and bring about the most astonishing changes. . . The general absence of the large, high, and well-defined terraces, which are usually found in valleys of this description, and the general prevalence in the surface soil of the very fine sand before alluded to, leads to the inference that the river, within comparably recent times, has scoured over the greater part of the area embraced between the limiting bluffs, at least in the narrow portions of the valley. . . The velocity of the current is very great. At low-water the average is

from two to three miles per hour, while in floods it amounts to ten miles per hour or more. Owing to this cause, and also to the large amount of very light material in the bed and banks, the amount of bank erosion and scour in fill of the bed is very great and very rapid. Bank erosion to the extent of 2,000 feet per annum over long distances, has been noted, and to a greater or less extent it is constantly going on, even during low stages."

The report then mentions the bars formed which, even at high water, obstruct navigation. They are constantly in motion and the position and shape change from day to day. It then continues:

" . . . Where a point or projecting neck is attacked on both sides, a cut-off is soon formed, which also acts detrimentally by increasing the local slopes and inaugurating other destructive changes. The caving of the banks precipitates into the river countless trees, which form the snags which constitute, in the strong current, most serious dangers to navigation, and also assist in impeding the free flow of the stream. . . "

In the report of Mr. Chas. S. Pease, Assistant Engineer, Council Bluffs, Iowa, dated July 1, 1882, he states:

"Major: I have the honor to submit the following report of operations during the fiscal year ending June 30, 1882, in the vicinity of Council Bluffs, Iowa, and Omaha, Nebr. By a comparison of the maps of the Florence-Bellevue reach made from surveys of February and of November, 1881, it will be seen that little change has taken place during the fiscal year except at Steamboat Bend. It was extremely unfortunate that the cut-off of April, 1881, occurred in this locality, because an almost ideal piece of river was disfigured and nearly 5 miles of course lost; and, moreover, this cut-off was the third in three years

between Omaha and Plattsmouth; it only made a bad matter worse. The previous cut-off had demoralized the slope and course of the river, but with the last event we had between Bellevue Bend and Plattsmouth about the most unsettled regimen imaginable. . .”

Then there is further discussion of the cut-off and how it was formed in the same manner as that at Vermillion, South Dakota.

In the 1883 Annual Report there is a map showing Nebraska City Island against the Nebraska shore with a slough or chute between it and the bank and trees on the island. The Missouri River is running around Eastport Bend considerably east of the present river. The statement is made that there were two channels in Pin Hook Bend, one closely hugging the bluff down through Van Horn Bend and the other following the Iowa shore. These united at Jones's Point and formed a single channel for a mile or so and then separated again and united in the lower part of Civil Bend. There was then another separation with one channel closely following the Iowa bank and the other the concave bank at Copeland's Bend which is immediately above Nebraska City. The report then continued:

“These channels met at one time opposite the head of Nebraska City slough; and, until the mouth of the eastern channel cut itself below the head, very extensive erosion took place in the slough and fears were entertained that a cut off would occur and the water leave Eastport Bend for the shorter channel through the slough. All fear of such an event is passed for the present, however, as the action of the eastern channel is too far down on the island to affect the slough so as to produce an enlargement.”

Later reports show Nebraska City Island with the river running through that slough on the west side of Nebraska City Island, as Nebraska City Island was cut off by the river and left on the eastern side as shown in December, 1886 on Exhibit P-371.

Various references are made throughout all of the early reports to activities by the snag-boats and work at various points along the river. This includes the work at Eastport and Nebraska City, Plattsmouth, Council Bluffs, Omaha and Sioux City, all of which work was carried on during the 1880's. There are also commerce statistics found in various other reports and the 1886 report contains an interesting comment:

“SIR: In accordance with the directions of the Commission, that the ‘Secretary procure statistics as complete as possible of the commerce of the Missouri River’, I have the honor to report as follows:

The results of my endeavors to collect data, reaching to date, and full, have been very meager.

Letters and lists of exact information wanted were sent to all addresses that could be heard of as likely to prove fruitful. Very few answers were received, and these very incomplete. Steamboat men are very unwilling to give definite information as to the trade of their companies, apparently from fear of the railroads. Even when assured that their disclosures would be kept confidential, their caution refused to be overcome * * *.

The steamboats on the Upper Missouri are not in direct competition with railroads, as on the Lower River and perhaps never will be. This relieves the river men in that section from the necessity for silence which is felt below, but their statements are

to be taken with caution unless proved from other sources. . . .”

The report then mentions that there were no barges at that time on the Missouri River because insurance was too high. It also shows a list of steamboats on the Missouri River and one of those mentioned is the *Vienna* built in Plattsmouth, Nebraska, in 1879. Its length is shown as eighty-nine feet, eight inches, breadth twenty-four feet, zero inches, and depth two feet, eight inches. Plattsmouth, Nebraska was an active river port in the early days as indicated by a photograph appearing on the front page of the *Plattsmouth Journal* of June 26, 1967 of the early steamboats with the caption “Early Plattsmouth shown as Plattsmouth in 1862 when it was a main steamboat stop-off. On March 9, 1862 eleven steamboats were anchored here at one time.” The photo has at the bottom “No. 9 Main Street 1862 Photo, By Sen. S. L. Thomas, Plattsmouth, Neb.” (Ex. P-2248).

In the 1889 report reference is made to the “old river-bed at the head of Nebraska City Island” and accompanying the 1889 Annual Report, is a map showing the designation “old river bed” going around the left side of “Nebraska City Island.”

In the 1890 report appears a list of steamers plying the Missouri River enrolled at the Port of Omaha, Nebraska, during the year 1889. Thirteen steamers are listed with managing owners from Nebraska, the Dakotas, Iowa and Minnesota. Also, in this 1890 report is a series of maps under the title MISSOURI RIVER COMMISSION LOCATION OF BORINGS IN THE VICINITY

OF BLAIR, NEB., SURVEYED 1883 BY GEO. S. MOR-
ISON, and one of these maps shows an oxbow area a
considerable distance from the river just northeast of
Blair and written in this area are the words "CUT-OFF
1881". This cut-off of 1881 shown in Ex. P-2686 is in
the California Bend area and shows an old abandoned
river bed considerably to the east, and the old Soldier
River used to come in at the top and in the middle of
Iowa Section 35. This same area is shown as a water
and marsh area on the 1947 Corps of Engineer tri-color
map (Ex. P-2667), and will be referred to later in the
brief.

There is another map showing the old river bed
around Nebraska City Island with the river next to the
bluffs on the Nebraska side.

Exhibit P-1619, entitled Call for a Missouri River
Improvement Convention at Kansas City, Missouri, on
December 15 and 16, 1891, is a report by the Commercial
Club of Kansas City and includes remarks by S. H.
Younge, Division Engineer. Although he stated that his
remarks referred to the reach extending from the mouth
to Kansas City, he also said they were applicable in a
general way to the whole portion of the river known as
the sandy river which extends about 2,000 miles above
its mouth. He mentioned the fact that one hundred and
forty-six thousand acres lie between the high water banks
of the river between the bluffs from Kansas City to the
mouth. The other five hundred thousand acres which
were not river bed proper, were liable, sooner or later,
to be washed away by the river unless the river is re-

strained by properly designed and constructed improvement works. He said:

“There is probably not a square foot of land anywhere between the river bluffs that has not been occupied over and over again by the river in its meanderings.”

Mr. Younge also mentioned that the width of the river below Kansas City between its high water banks varied from nine hundred to seven thousand feet with the low water widths varying from four hundred to two thousand feet. He discussed river structures and new land which would be made eventually and built up by improving the river as well as the safety of the additional land between the bluffs. He mentioned the land adjacent to the river which then had an average value of \$25.00 per acre would be worth \$75.00 to \$100.00 per acre. He did state that he had not made an extended study of the reach between Kansas City and Sioux City, but the remarks he made in regard to the increased value of land, and the other benefits to be derived applied with equal force to the river between Kansas City and Sioux City.

In the 1891 annual report of the Missouri River Commission the following reference is made:

“Soon after the passage of the appropriation act of September 19, 1890, the Commission decided on making a new shore-line survey of the river from Sioux City to the mouth. Since the topographic survey of 1878 and 1879 was made, numerous and important changes in shore line have occurred; so that the published maps of that survey have become quite unreliable as to the present shore line. . . .”

A map appears as a part of the report showing the "OLD RIVER BED" around the eastern side of Nebraska City Island with the river back against the bluffs along the Nebraska side. Reference is also made to the fleet at Nebraska City.

The 1893 report contains commerce statistics and shows enrolled at Omaha thirteen boats in 1889, ten boats in 1890, twelve boats in 1891 and eleven boats in 1892.

The 1895 report contains the following:

"... The natural channels on the Missouri are tortuous and exceedingly unstable, constantly shifting in position and difficult to run by boats of any size, and it is quite safe to say that the delays incident to these features are quite as much of a detriment to profitable navigation as any lack of depth of water ..."

The reports also make several references to cut-offs which occurred along the Missouri-Kansas border.

The 1898 report contains additional history of the Nebraska City situation and an attached map again shows the river on the Nebraska side of Nebraska City Island, the location of dikes constructed by the Corps, and the old "RIVER BED OF 1881" around the eastern side of Nebraska City Island.

The 1901 report contains further reference to several cut-offs in recent years above Sioux City causing a large amount of erosion on the banks opposite Sioux City.

The Missouri River Commission ceased existence in 1902 and the 1902 report is its last annual report. It

refers to the fact that there were some three hundred steamboats lying embedded in the sand of the river. It also stated that there were forty-two merchant steam vessels engaged in trade on the Missouri River below Sioux City which receive yearly inspections by the United States Inspector of Steam Vessels, and in addition fourteen or more gasoline boats.

The 1903 annual report of the Chief of Engineers commences:

“The Missouri River has been navigated by steamboats since 1819; first boat to Council Bluffs, 1819; first to mouth of Yellowstone, 1832; first to head of navigation, 1859. . . .

Government work on the river in the matter of removal of snags began as early as 1838 and continued thereafter, under annual appropriations (for the most part made jointly for the Ohio, Mississippi, Missouri, and sometimes the Arkansas Rivers) with occasional intermissions, for the next forty years. Prior to 1878 one or two small appropriations had been made for general improvement, but it was with the act of June 18 of the latter year that appropriations began on a large scale.”

In 1904, reference is made to the falling off of commerce on the lower river, but an increase on the upper river. In 1905 is found the following:

“St. Marys Bend, below Omaha, Neb.—By request of Congressman, Walter I. Smith, of Council Bluffs, Iowa, an examination was made of the river in the vicinity of St. Marys Bend in company with State Senator Shirley Gilliland, and Seth Dean, County Surveyor of Mills County, with a view of permitting

a cut-off to be made through the sandbar on the right bank, to relieve the erosion of the left bank."

The 1913 annual report states that the existing project providing for a six foot channel between Kansas City and the mouth was adopted by Congress on July 25, 1912. It reiterates that government work on the removal of snags began in 1838 and a project for the river from Sioux City to the mouth was adopted in 1884 and in 1890 the project was modified to provide for systematic improvement of the first reach, from Jefferson City to the mouth. It stated that the results of the expenditures at separate localities have been beneficial locally by protecting the banks and forming good navigable water fronts and incidentally preserving private property from the ravages of the river, but has given little, if any, encouragement to navigation.

The 1915 report states that, during the past decade, a snag boat had operated regularly during a portion of each season on the part of the river between Kansas City and Sioux City; and mention is made in the 1916 report of a small boat line in operation between Omaha and Decatur, Nebraska and water transportation between Kansas City and Omaha initiated in the spring of 1916 by small towboats.

In the 1919 report the statement is made that at Hamburg, Iowa, left bank, about mile 597:

"A land improvement company set six current retards equidistant along 6,600 feet of bank at a cost of \$8,292. These are floating log gratings 100 feet in length, anchored to concrete piling jettied below the river bed."

Ex. P-2687 contains the Annual Reports of the Chief of Engineers from 1920 through 1945. The 1920 Report states that the width of the river from Kansas City to the mouth in its original condition varied from five hundred feet to over one mile and the river shifted in location and destroyed many acres of valuable bottom land. The section from Kansas City to Sioux City was similar to the section below Kansas City and, before improvement, the river was navigable throughout this entire section. The first regulation work is stated as having been constructed at Saint Joseph and Nebraska City under the provisions of the River and Harbor Act of August 14, 1876. In the 1921 report, in the vicinity of the Missouri-Iowa state line at mile 597 a system of eleven retards is shown as having been constructed for bank improvement consisting of eight hundred and seventy linear feet at a cost of \$30,563.38. This is at the lower end of the Schemmel land and, in fact, the testimony was that the most northerly revetment along the Iowa bank appearing on the 1923 Corps of Engineer map was approximately 1,600 feet north of the Hamburg Landing Road whereas the bottom part of Iowa's traverse of the Schemmel land which Iowa is claiming extends to within 1,000 feet of the Hamburg Landing Road.

During the years the reports often refer to a considerable amount of private construction along the river. Reference is also made to the fact that in the autumn of 1924 the Western Barge Line operated its steamer *Decatur* with cargo box barge between Sioux City and Omaha, but withdrew at the end of the season upon finding commercial boating unremunerative.

The 1934 report for the fiscal year ended June 30, 1934 shows work at Frazer-Otoe Bend and the 1935 report shows work at Frazers and Otoe Bends and work at Tobacco and Rock Bluff Bends. From 1936 on, many entries give some general indication of the amount of work done on the Missouri River along the Iowa-Nebraska border. There are many references to dredging and canals. In the 1938 report, pilot canals are shown at Glovers Point Bend, mile 778.2; Papillion Bend, mile 638.8; Plattsmouth Bend, mile 637.1; Civil Bend, mile 616.7; Otoe Bend, improve existing canal, mile 601.3; Hamburg Bend, improve existing canal, mile 597.3; Hamburg Bend, 596.7; Omadi Bend, mile 796.6; Browers Bend, mile 788.2; Omaha Mission Bend, mile 764.3; and Little Sioux Reach, mile 725.1.

The 1938 report also makes reference to, “. . . one earth filled dam to divert the channel. . . .” In addition, it states:

“. . . the cost of channel surveys made during the year to *determine results accomplished by the various works* was \$25,281.20. . . .” (Emphasis supplied.)

The 1939 report refers to completion of two cut-offs at California Bend and at Peterson Bend and refers to three channel cut-offs having been effected under the existing project. The Chief of Engineers recommended adoption of a project for the Missouri River between Sioux City and the mouth so as to provide for a channel of 9 foot depth and width not less than 300 feet,

“. . . to be obtained by revetment of banks, construction of permeable dikes to contract and stabilize the

water way, cut-offs to eliminate long bends, closing of minor channels, removal of snags, and dredging as required. . . .’

The 1940 report, in its summary of work done, includes:

“ . . . effecting three channel cut-offs, and removal of 49,641,454 cubic yards of material dredged from the channel to obtain project depth and width.”

The 1941 report mentions Civil Bend Pilot Canal then under construction, and the 1942 report also mentions excavation at the Civil Bend Pilot Canal and nose protection at Omadi Bend Pilot Canal and Browers Bend Pilot Canal. It also shows work done at Rock Bluff—Frazers Bend and Otoe Bend and Tobacco Bend.

The 1943 report states that the work between Rulo and Omaha was approximately 99% completed and between Omaha and Sioux City approximately 78% completed.

The Iowa-Nebraska Boundary Compact of 1943

An article appeared in the *Omaha World Herald* of February 24, 1943 entitled “Offer Another Boundary Bill”. This article states:

“The Iowa attorney general’s office has prepared a bill calling for establishment of the boundary between Nebraska and Iowa conforming, in the main, to the channel of the Missouri river.

Attorney General John M. Rankin said the changing course of the river has left 12,500 acres of Nebraska land east of, and 6,700 acres of Iowa land west of the present channel.”

The article states the bill would give Nebraska jurisdiction of all land west of the channel except the town of Carter Lake and would give Iowa jurisdiction over land on the east side of the channel. It continued:

“The attorney general said considerable difficulty has been experienced in one Iowa consolidated school district whose boundaries include 800 or 900 acres west of the present channel.”

The original bill in the Iowa legislature in 1943 to establish the boundary compact was offered as House File 437, dated February 26, 1943 (Ex. P-1618). It was similar to the Iowa-Nebraska Compact as finally agreed upon except that the original bill excepted the boundary line established and declared to be such in a judgment or decree entered in the Supreme Court of the United States and the bill identified the case of *Nebraska v. Iowa*. Attached to this bill is an explanation which states:

“This measure is intended to fix the boundary line between Iowa and Nebraska now that the channel of the Missouri river is under control. It will be observed that this measure retains the Carter Lake territory in Iowa.

Making the present channel of the Missouri river the boundary line will tend to simplify the question of jurisdiction over territory now in dispute.”

The Journal of the House of the Fiftieth General Assembly, State of Iowa, 1943, shows an amendment was filed which specifically excepted Carter Lake from the agreement by metes and bounds description and which added the language of the compact presently found in the last paragraph of Sec. 1 which identifies the middle

of the main channel as the center line of the proposed stabilized channel of the Missouri River as established by the United States Engineers' Office, Omaha, Nebraska, and shown on the alluvial plain maps (Ex. P-1548). The bill was then passed by the House on April 6, 1943 (Ex. P-1548), passed by the senate, and shown as signed by the President of the Senate on April 8, 1943 (P-1549) and sent to the Governor of Iowa on April 8.

The Nebraska Legislative Journal for the 102nd day, dated May 27, 1943, has a letter from B. B. Hickenlooper, Governor of the State of Iowa, dated May 25, 1943, to the Clerk of House of Representatives of Nebraska enclosing a certified photostatic copy of House File 437, Acts of the Iowa Fiftieth General Assembly (P-1547, P-2303) and the Iowa-Nebraska Boundary Compact was adopted by the Nebraska legislature with the addition of Section 6 which repealed a 1941 proposed boundary compact bill and Section 7 which is the emergency clause (P-2302). It was passed by the legislature and signed by the Governor on May 7, 1943 (Ex. P-1008, P-1547).

The Compact as adopted by the State of Iowa appears as Exhibit "A" attached to the Complaint and was offered as Exhibit P-2605. After establishing the middle of the main channel as the boundary and identifying it as being the center line of the proposed stabilized channel of the Missouri River as established by the United States Engineers' Office, Omaha, Nebraska, as shown on the alluvial plain maps of the Missouri River which were then on file in the United States Engineers'

Office at Omaha and copies of which maps were on file with the Secretary of State of Iowa and the Secretary of State of Nebraska, the Compact then provided:

“Sec. 2. The State of Iowa hereby cedes to the State of Nebraska and relinquishes jurisdiction over all lands now in Iowa but lying westerly of said boundary line and contiguous to lands in Nebraska.

Sec. 3. Titles, mortgages, and other liens good in Nebraska shall be good in Iowa as to any lands Nebraska may cede to Iowa and any pending suits or actions concerning said lands may be prosecuted to final judgment in Nebraska and such judgments shall be accorded full force and effect in Iowa.

Sec. 4. Taxes for the current year may be levied and collected by Nebraska or its authorized governmental subdivisions and agencies on lands ceded to Iowa and any liens or other rights accrued or accruing, including the right of collection, shall be fully recognized and the county treasurers of the counties affected shall act as agents in carrying out the provisions of this section: *Provided*, that all liens or other rights accrued or accruing, as aforesaid, shall be claimed or asserted within five years after this act becomes effective, and if not so claimed or asserted, shall be forever barred.

Sec. 5. The provisions of this act shall become effective only upon the enactment of a similar and reciprocal law by the State of Nebraska and the approval of and consent to the compact thereby effected by the Congress of the United States of America. Said similar and reciprocal law shall contain provisions identical with those contained herein for the cession to Iowa of all lands now in Nebraska but lying easterly of said boundary line described in section 1 of this act and contiguous to lands in Iowa and also contain provisions identical with those con-

tained in sections 3 and 4 of this act but applying to lands ceded to Nebraska.”

It should be noted Sec. 5 of the Iowa bill specifically required that Nebraska’s Act should contain provisions identical with those contained in the Iowa bill for the cession of lands lying easterly of said boundary line “. . . and also contain provisions identical with those contained in sections 3 and 4 of this act but applying to land ceded to Nebraska.”

The Nebraska act appears as Exhibit “B” of the Complaint (Ex. P-2606) and the bill was offered as Exhibit P-2302.

In the United States Congress Senate Calendar No. 401, Report 388, 78th Congress, First Session and the Report No. 551 of the House of Representatives are the following comments referring to the Compact:

“The purpose of the bill is to give the consent of Congress to the compact entered into by the States of Iowa and Nebraska establishing the boundary between Iowa and Nebraska.

Congressman Howard H. Buffett, of Nebraska, author of the Bill, has advised the committee—

If adopted this measure will settle a large number of jurisdictional disputes which have arisen over a long period of time. The States of Iowa and Nebraska, after lengthy negotiations, have entered into a compact satisfactory to both states. The measure, so far as I have been able to ascertain, is not controversial. The Honorable Ben F. Jensen and the Honorable Charles B. Hoeven, representing the affected Iowa districts and the Honorable Karl Stefan and the Honorable Carl T. Curtis, representing, along

with myself, the Nebraska districts affected, have all expressed their approval of H. R. 2794 as well as the compact which it approves.

Consent of Congress to the compact is required by reason of that part of Section 10, Article 1 of the Constitution which provides:

‘No state shall, without the consent of Congress * * * enter into any agreement or compact with another State’.” (Ex. P-1012, P-1015).

The A. P. maps as filed with the Secretary of the State of Nebraska were offered as Exhibit P-1770 and are of the scale of one inch equals one mile and show that they were filed with Frank Marsh on April 2, 1941. These maps do not show all of the agricultural levees which appear on later A. P. maps and each of them has a stamped note in the corner:

“Note: The area covered by the Missouri River on this map was compiled from aerial photographs taken by the U. S. Army Air Corps and field surveys made in 1939. The area landward from the Missouri River was compiled from uncontrolled mosaics of aerial photographs taken by the U. S. Department of Agriculture in 1936, 1937, and 1938.”

They are dated January 30, 1940, and March 29, 1940, and all are shown as submitted by Wm. Whipple, 1st Lt. Corps of Engineers. There are no calls or distances given. The dikes on the A. P. maps are not all numbered. The designed channel is traced on the maps and, particularly north of Omaha, this design is shown as running through all kinds of bar and dry land area. Several cut-off lakes are shown. On A. P.—5 California Bend is clearly shown as a cut-off and at the top

of the map Peterson Cut-off is shown, although neither of these is so labeled. This is also true of St. Mary's Cut-off on A. P.—8. Nottleman Island is shown on A. P.—8 and on A. P.—9 the river can be seen running through what was the bottom part of Goose Island and the top part of a lower island and this area later becomes what Iowa now describes as Auldon Bar. The Schemmel land appears on A. P.—10. It is particularly noteworthy that, at the very end of the long dike extending from the Iowa shore to the middle of Schemmel Island there is a trail dike extending downstream, and at the end of this trail dike there appears to be a clump of trees. This will be discussed later as land which was cut off by the construction of the Otoe Canal by the Corps of Engineers. The Iowa Chute is also shown considerably to the east of the Schemmel land. Mule Slough can be seen on A. P.—9 immediately east of Nebraska City. There is no other identification of where Nebraska City Island may have been on this map.

These Alluvial Plain Maps will be discussed elsewhere. Suffice it to say at this time that they are obviously only general maps and are completely inadequate as surveys. It is impossible to lay out a line on the ground based upon the data in these maps and it is obviously impossible to determine the center of the designed channel as established by the Corps of Engineers from the information on these maps. It is also apparent from these maps that the river is shown in several places in other than the designed channel where designel channel is shown as going through land, bank, island or bar which on the A. P. Maps is dry ground. The maps also show

the designed channel in a series of curves and they show many islands and bar areas on both sides of the designed channel.

Nebraska Boundary Legislation Since The Compact

The Compact evidently did not decide all of the problems between the states because in 1947 the Nebraska legislature adopted an act RELATING TO IOWA-NEBRASKA BOUNDARY LINE COMMISSION. This act authorized the Governor of Nebraska to appoint three commissioners to act with a similar commission to be appointed by the Governor of Iowa to negotiate a Compact for submission to the legislatures and to Congress "Whereby land east of Omaha and lying west of the Missouri River in the State of Iowa may be ceded to the State of Nebraska upon such terms as may be deemed fair and equitable." (Ex. P-2234).

In 1957, the Nebraska legislature adopted another act relating to the boundary between Iowa and Nebraska and again providing that the Governor shall appoint a commission to negotiate a Compact to establish a new boundary between Iowa and Nebraska (Ex. P-2223 and P-2235).

In 1959 the Nebraska legislature adopted another bill providing for the appointment of commissioners for the purpose of negotiating a Compact to establish a new boundary (Ex. P-2340 and P-2233).

Then in 1961, following the publication by the State of Iowa of Part I of the Missouri River Planning Report (Ex. P-2609), the Nebraska legislature adopted Legisla-

tive Resolution 38 on June 13, 1961, Re: "Surveys to Determine the Boundary or Titles to Lands Along the Missouri River". This is a resolution requesting the Board of Educational Lands and Funds ". . . to direct the State Surveyor to make or cause to be made such surveys as may be necessary or helpful in determining the boundary of this state where the same is formed by the Missouri River, or may be necessary or helpful in protecting the interest of this state or the citizens thereof from the direct or indirect claims of other states to lands along the Missouri River . . ." and to collect documents and materials essential or helpful in determining the boundary or titles to lands along the river (Ex. P-1006 and P-1007). This action was taken promptly by the legislature within six months after the date of the Missouri River Planning Report of January, 1961.

In 1963, when it was apparent that Iowa was continuing to push forward aggressively with its program concerning ownership of lands along the Missouri River owned by residents of the State of Nebraska, the Nebraska legislature adopted Legislative Resolution 47 which is attached to the Complaint as Exhibit "Q" and was offered as Exhibit P-2607. This resolution is as follows:

"WHEREAS, the State of Iowa is being most aggressive in asserting ownership of lands lying east of the stabilized channel of the Missouri River, many of which lands are owned by residents of the State of Nebraska; and

WHEREAS, the State of Iowa in pursuit of this policy has initiated action in its own courts against

at least one resident of Nebraska, and in statements by its officers has indicated that further similar actions are contemplated against Nebraska residents and against lands which are a part of the State of Nebraska; and

WHEREAS, in certain instances this aggressive policy by officers of the State of Iowa may be in conflict with the solemn agreement of the State of Iowa on April 15, 1943, to recognize Nebraska titles; and

WHEREAS, individual owners of Nebraska lands and individual Nebraska citizens in defending their ownership of such lands cannot be in a position to match the financial and legal resources available to officers of the State of Iowa in the pursuit of their present policies in attempting to acquire title to the lands involved.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE NEBRASKA LEGISLATURE IN SEVENTY-THIRD SESSION ASSEMBLED:

1. That the State of Nebraska is deeply concerned on behalf of its citizens with the aggressive policies pursued by officers of the State of Iowa in the acquisition by that State of certain lands along the Missouri River.

2. That within the limits of appropriations specifically made for that purpose, the Attorney General of the State of Nebraska be directed to employ special counsel or assistant Attorneys General to examine into all such actions initiated or contemplated by the State of Iowa, and where such action appears to be justified to protect the legitimate interests of Nebraska citizens or the titles to Nebraska lands, or to assure compliance by Iowa officials with the 1943 Boundary Compact with the State of Iowa, that he

intervene on behalf of the State of Nebraska in any such actions or proceedings initiated by officials of the State of Iowa, or that he initiate any and all necessary original actions in the Supreme Court of the United States to accomplish the objectives outlined herein.”

Then this action was filed by the State of Nebraska on July 20, 1964.

Iowa Legislative and Governmental History Since the Compact

In 1957 the Iowa legislature adopted a resolution to create a special committee to confer with the legislature of the State of Nebraska and make a study of the present boundary line between the States of Nebraska and Iowa (Ex. P-2293, 2294, 2295, 2298). The preamble of the resolution recites that until 1943 the boundary between the States of Nebraska and Iowa was the center of the main channel and in 1943, by acts of the legislatures of the two states and concurred in by Congress, the boundary was changed “so as to follow a line surveyed and mapped by the U. S. Army Corps of Engineers which at that time was the center of the main channel of the Missouri River as altered by the U. S. Army Corps of Engineers and presumed to be permanent, and WHEREAS, the U. S. Army Corps of Engineers has not maintained the channel of the Missouri River on this line . . .” and “. . . in some instances the entire river now flows through the state of Nebraska and Iowans do not have access to it except by going through parts of the State of Nebraska . . .” The explanation is “The purpose of this act is to draft legis-

lation to accomplish a correction in the Iowa-Nebraska boundary line and to meet with members of the Nebraska Legislature in an effort to secure similar action by that state and to secure the concurrence of the United States Congress.”

The 1959 Journal of the House (Ex. P-2297) and Journal of the Senate of the State of Iowa (Ex. P-2296) include a REPORT OF IOWA-NEBRASKA BOUNDARY STUDY COMMITTEE pursuant to the 1957 acts of the Iowa legislature. This report starts with a discussion of the historical background and then contains a section on the reason for the current study and states:

“The Missouri River is historically known as a turbulent stream and has changed its main channel frequently during recent years as it had been doing since the stream has been known by mankind. The U. S. Corps of Army Engineers was given the job of attempting to stabilize the Missouri River channel and the United States has spent many millions of dollars in doing so. The Corps of Engineers found that it was not expedient and practical to hold the channel of the Missouri River on the boundary line as established in the 1943 compact and in its work of stabilizing the channel primarily between Omaha and Sioux City changed the course of the river in many localities so that at the present time approximately twenty-six (26) miles of the Missouri River lies west of the established Iowa-Nebraska boundary and wholly within the State of Nebraska whereas approximately thirteen (13) miles of the Missouri River lies wholly east of the Iowa-Nebraska boundary line and is within the boundaries of the State of Iowa, which involves several thousand acres of land.

An example of the change in the course of the Missouri River as brought about by the work of the Corps of Engineers is in the bend in the river known as the 'Decatur Bend' which lies from three to five miles west and approximately one and one-half miles south of the City of Onawa. At the present time the new channel at the 'Decatur Bend' is now flowing under the bridge, which was formerly a dry land bridge, and is entirely within the State of Nebraska, at least insofar as the 1943 compact and map AP-3 described the stabilized channel." (Ex. P-2297).

There is then a section on problems caused by the present location of the boundary which includes the following:

"As indicated above, the legally established boundary line, as it now exists, no longer, in many instances, follows the middle of the channel of the Missouri River but is wholly an intangible line which may be several hundred feet from the river, thus making it most difficult to ascertain the location of the line, without a survey, which causes difficulty in determining whether the Iowa or Nebraska laws apply in regard to law enforcement, title to real estate and other problems which may arise as to which state has jurisdiction. This condition is aggravated by the fact that in the normal flow of the Missouri River it may change its course several hundred feet in a year's time, cutting away land on one side of the stream and by alluvial deposit leaving additional land on the other side."

Then it is stated that the stabilization work had progressed to some extent north of Omaha but was less than fifty per cent completed to Sioux City. Mention was made of a cut-off in DeSoto Bend which "... when

completed will place from 3,000 to 4,000 acres of land on the east side of the Missouri River and it is the belief of your committee that there cannot be delegated to the U. S. Army Corps of Engineers authority to fix the boundary line between Iowa and Nebraska by using the middle channel of the Missouri River at such place as their work might place it."

The committee concluded:

"We, the members of the Iowa-Nebraska Joint Boundary Commission, find that the existing boundary line between Iowa and Nebraska creates many problems regarding land titles and the administration of various laws in both states. However, it would serve no useful purpose at this time to recommend the creation of a new boundary line until the Missouri River channel is stabilized, which work is now only approximately 50 per cent completed by the United States Corps of Engineers between Omaha and Sioux City.

To fix any boundary line other than the middle of the channel of the Missouri River would merely continue the existing problems.

It is therefore our judgment and decision that no action be taken at this time for the change of the Iowa-Nebraska boundary line, but that this Committee or a similar Committee be continued so that when the Missouri River channel is stabilized to the extent that the channel of the Missouri River can be used as a natural boundary line between the two states that this Committee or its successor can recommend a proposal for a new boundary line which will be readily definable and visible and which may be reasonably acceptable to the majority of the residents of the territories whose change in citizenship will be involved."

The recommendation was made that the committee be continued.

The JOURNAL OF THE HOUSE OF THE FIFTY-NINTH GENERAL ASSEMBLY, STATE OF IOWA, 1961, refers to a bill, H. F. 571, to establish the boundary in the middle of the proposed stabilized channel, but the reference in Section 4 is to taxes for the year 1961 instead of 1943. The explanation at the end of the bill states:

“This bill resolves the dispute now existing between the states of Iowa and Nebraska in regard to the boundary line between the two states by establishing a specific boundary line according to the United States Government Survey.” (Ex. P-2304, P-2299).

The bill was referred to Committee and no further action taken.

The 1961 IOWA JOURNAL OF THE SENATE (Ex. P-2300) and JOURNAL OF THE HOUSE (Ex. P-2305) contain a “Report of Iowa-Nebraska Boundary Study Committee”. The report states that the committee appointed by the 1957 legislature had made a study and determined that the stabilization of the river had not been sufficiently attained to warrant a committee recommendation to proceed with boundary line negotiations at that time. The committee was reactivated in December of 1959 and the Iowa and Nebraska Committees during 1960 concluded from reports of the District Office of the Corps of Engineers and visual inspections that a sufficient degree of channel stabilization had been attained to attempt a boundary line determination. This

report recommended the Iowa and Nebraska Committees proceed with boundary negotiations based upon the premise that the twenty-eight miles of wild river would be under contract with completion date in August, 1961, with the exception of some five miles. The report also states that in a one hundred and twenty-one mile span of the river from Sioux City to Omaha, the Missouri River straightening by the corps has eliminated, or will eliminate, some forty miles of river bends on the Iowa side with losses in river frontage principally at Blackbird Bend, Tieville Bend and Decatur Bend. The Iowa Committee adopted a resolution proposing that the boundary line be the middle of the main channel of the proposed stabilized channel, and a recommendation to except Carter Lake lost in committee.

In the 1963 Iowa House, a bill was introduced by twelve members to establish the boundary and appears to be quite similar to the 1943 Compact provisions. At the end of the bill there is an explanation as follows:

“This bill resolves the dispute now existing between the states of Iowa and Nebraska in regard to the boundary line between the two states by establishing a specific boundary line according to the United States Government Survey.” (Ex. P-2306).

Also attached is a REPORT OF SUB-COMMITTEE OF JUDICIARY 1 on House File 263 (Ex. P-2306). This report states that one of its meetings “. . . was with representatives from the State Conservation Commission at their request.” The following statements are then included in the report:

“The sub-committee finds that as a result of the

straightening and controlling of the channel of the Missouri river, with the exception of Carter Lake, Iowa, this left a considerable amount of property of Iowa within the State of Nebraska, and property of Nebraska in the State of Iowa. The proponents of House File 263 complain that ownership of property along the entire Iowa-Nebraska border cannot be determined, that titles are confusing and that taxes are uncollectable. This is difficult for the sub-committee to understand, for while it is not within the province of the committee to determine titles, *an arbitrary changing of the main channel of the river certainly would have no effect on titles to property where individual ownership previously existed.* The only land to which title would seem questionable would be that to which ownership had not previously been established, which in all probability would only be swamp or waste land prior to the straightening of the channel. If private ownership was not previously established to this property, it undoubtedly belonged to the respective states. The respective states, by statute in all probability can exchange titles to such waste lands. Whether or not adjoining land owners acquire title to any such land would be legal questions, and the sub-committee fails to see how changing state lines by House File 263 would assist in determining titles to such land. Nevertheless, it is definitely desirable to change the state boundary to the center of the new channel of the Missouri river as straightened and stabilized by the Army Engineers except for Carter Lake, Iowa.

In passing however, the sub committee makes this observation. The proponents of House File 263 have alleged that changing of the boundary lines to the states is desired in order to enable the Conservation Commission in Iowa to develop these lands which would change state status. The sub-committee fails to follow this reasoning. *Ownership of land*

definitely established prior to changing of the channel would not be affected by changing state statutes, and the Conservation Commission could only acquire title to such land by purchase or condemnation. The right of the Conservation Commission of Iowa to develop such areas which were swamp or waste lands prior to the straightening and stabilizing of the Missouri river is indeed questionable because of the legal questions pointed out above. At least no one has pointed out to the sub-committee that this question has been legally determined. Since this is immaterial to the duty of the sub-committee in determining the desirability of passing House File 263, no legal opinion has been sought." (Emphasis supplied.)

The sub-committee then recommended passage of House File 263 to change the boundary to the middle of the Missouri River except for Carter Lake. In light of the evidence which has been submitted in this case concerning the alleged effect upon riparian rights and private titles because of the Iowa-Nebraska Boundary Compact of 1943, it can be seen that the legislative sub-committee was misled in some of its conclusions. They are in error in assuming land belonged to the several states if private ownership was not previously established. However, the legislative sub-committee seems to accept the fact that a title previously established should not be affected by the changing of the state line. Some of the statements in the report would seem to cast doubt upon the conduct of the Iowa State Conservation Commission in now asserting title to lands which had been established in private owners prior to the Compact.

Ex. P-2319 is a letter to the Honorable Harold E. Hughes, Governor of the State of Iowa, dated December

1, 1964 from the Governor's Advisory Committee on the Iowa-Nebraska boundary together with a Report of the Governor's Committee. The letter states:

“Because there is a question as to where the present boundary exists and because many acres of land on the river bottoms have been claimed and improved and titles to some land are questionable, we recommend:

1. That the State of Iowa and the State of Nebraska respectively establish a Board comprised of three members from each state to locate the present boundary where possible and to survey and record title to real estate in the respective jurisdictions prior to the ratification of a new boundary compact.

2. That the General Assemblies of the respective states pass identical resolutions creating the center of the channel of the Missouri River as the boundary for submission to the Congress of the United States for ratification.

The report indicates that:

“The problems that existed during the period of the previous study committees still exist and have been compounded because of much of the land area along the river channel has now been converted to productive agricultural use. Much of this land has heretofore been unclaimed and titles to much land unestablished. In a letter from the United States Corps of Engineers dated February 28, 1963, it was stated that the present state boundary between Iowa and Nebraska cannot be located throughout from maps in their files. At one time it was possible to locate the state boundary from their 1"=400' construction maps as the river alignment as shown on these maps conformed to the alignment shown on the Alluvial Plain Maps. However, since the present boundary compact

was ratified, numerous channel realignments have been made and the basic 1"=400' maps which show the alignment in accordance with the alignment on the Alluvial Plain Maps were not retained and the Alluvial Plain Maps are too small a scale and do not contain sufficient details to locate the state boundary"

The report then has sections relating to law enforcement, title controversy, boundary problems and taxes. It includes the following statement:

"Presently we have people claiming land across each other and across what must be the boundary because the riparian owners hesitate to become involved in seemingly endless litigation on a piece-meal basis until such time as their titles can be completely cleared. In the meantime some people are obtaining title by adverse possession. In this confused situation assessors are not getting the land on the tax rolls. Many thousands of acres are tax free."

It mentions that the U. S. Corps of Engineers has moved the river completely into Nebraska for 39.6 miles between Council Bluffs and Sioux City and that ". . . industrial firms are faced with uncertain title and tax structures not knowing what state they are in, retarding the potential development of this area." The report also said that there are approximately 21 areas, consisting of 11,807 acres on the Iowa side of potential recreational development, with 192 miles of water recreation shoreline. The Committee then included among its recommendations:

"That the State of Iowa and the State of Nebraska shall file a friendly suit in the U. S. Supreme Court to establish guide lines to determine title of lands

transferred in a boundary compact with reference to individual land owners and claims upon lands by states, and such other questions as the attorneys may desire."

Included as a part of the exhibit are pages from the Journal of the House and Journal of the Senate of the 1965 Iowa Legislature which includes the Governor's Address in which he stated:

"I would urge the Assembly to ratify the settlement of the Iowa-Nebraska Boundary dispute recommended by the boundary committees of both states, in order to settle long-pending questions of land ownership and to open up the Western Slope of Iowa to commercial, industrial and recreational development."

He also made the following statement in that address:

"The settlement of the Iowa-Nebraska boundary dispute, recommended elsewhere in this message, will open up a vast potential area for wildlife and outdoor recreation in western Iowa."

Part 1 of the Missouri River Planning Report

The State Conservation Commission of Iowa published a document entitled PART 1 OF THE MISSOURI RIVER PLANNING REPORT dated January 1, 1961 (Ex. P-2609), and it is this document which first publicly discloses a considered effort on the part of the Iowa State Conservation Commission to assert claims to the title to lands along the Missouri River under the doctrine of state sovereign ownership to the beds and abandoned beds of the Missouri River. The letter at the beginning of the Report by Lester F. Faber, Assistant Director, to the Director says:

“As you know, Jerry Jauron has done most of the field work.”

The Introduction states:

“There is little doubt about the fact that public demand for outdoor recreation carries with it a demand for land and water on which the needed facilities can be provided.

In Iowa, for the most part, every acre developed for recreational use must come from private ownership and must be subtracted from cropland, pasture land or from lands under other agricultural uses.

Thus, when an opportunity arises where a vast recreation resource can be developed without conflict with other land use, it should be explored and developed to its fullest capacity. Such is the situation along the Missouri River from Sioux City to Hamburg.

For the past several months the Conservation Commission has been studying the possibilities for development of thousands of acres of marsh, water and islands along the 192 miles of the Missouri as it passes the western border of this state. These studies have included reconnaissance by air, by boat and on foot of all the major potential recreation areas. The entire study has been carried out by permanent commission employees on a special assignment basis. The only additional funds expended were for added travel expenses of one man and miscellaneous costs such as films, maps and similar items. Army Engineer's plans for channelization work have been carefully reviewed.

The results of the survey and study to date are presented here as part one of the Missouri River Planning Report. This report sets out the possibilities for development, it includes comments on some

of the problems of land ownership and some of the problems in relation to the boundary between the state of Iowa and the state of Nebraska.

This report records the basic data on the 25 areas that show real possibilities for development for recreational use. Included herein are recommendations based upon the information now available. * * *

It should be remembered that this is a preliminary planning report for the Missouri River and it is designed primarily to describe the various circumstances in enough detail for the Conservation Commission to decide its future actions. All recommendations presented herein should be considered as preliminary and will be continuously refined in light of more information and more planning.

As soon as the problem of land ownership on the various areas is settled each operating section of the Commission should then examine these areas and the detailed planning carried out to be followed with actual development work. * * *'' (Emphasis supplied.)

Under the heading THE PRESENT SITUATION the following is found:

“In years past the Missouri has been a fast running river, subject to regular flooding and often carrying heavy silt loads.

The uncontrolled river moved about freely, cutting new channels, abandoning old, always adding to and subtracting from the shoreline on both banks.

The construction of upstream reservoirs now makes it possible to better control water levels, thereby reducing the damaging floods. In addition, the Corps of Engineers of the U. S. Army are nearing completion of the channelization work on the river as it passes Iowa. Channelization work is complete from DeSota Bend on the Harrison, Pottowattamie County

line down to the Missouri state line. Some work still remains to be done upriver to Sioux City.

Between Missouri Valley and Sioux City there still are many oxbows that will be cut off when the newly designed channel work is done. These are the areas that have a great present value and a high potential for use as public recreation areas. These are the areas that must be saved from destruction by sand-carrying river flows. These are the areas that offer places for development for future generations to hunt, fish, boat, camp and similar outdoor activities.

Chapter V of this report shows the general location of the cutoff areas. The number of areas that will be either on the Iowa or Nebraska side of the new channel is also indicated. The problem of location of the boundary line between Iowa and Nebraska is more fully discussed in Chapter III and in detail in Chapter V. The problems of ownership of these lands and waters and the legal actions in relation to ownership are discussed in Chapters II and V. Chapter IX carries initial recommendations for settling disputed ownership problems and suggestions for development.

A second major recreation potential along the river is provided by the several islands. These islands range from low sand bars and mud flats to high ground that should not be flooded. These islands offer possibilities ranging from duck blinds or cropping for waterfowl through the development for camping, picknicking and other park uses. Here again the boundary problems and the doubtful ownership problems become involved. The problems are discussed in Chapters II, III and V of this report.

At present there are 30 possible recreation areas along the 192 miles of river from Sioux City to the Iowa-Missouri state line. Of the 30 areas, one, the DeSota Bend area is already being developed by

the Federal Fish and Wildlife Service and four areas cannot yet be considered because of Corps of Engineers plans for channel changes.

Of the remaining 25 areas, four are on the Nebraska side of the new channel and 21 on the Iowa side. The 21 areas on the Iowa side total some 14,000 acres of which 4,000 acres are in Nebraska and privately owned (see Chapter V) * * *."

Under LAND AND WATER OWNERSHIP the report states:

"The past violent fluctuations in river water levels have been so frequent that changes in channels, bank location, sand bars, etc., made it virtually impossible to describe the state boundary or to determine land ownership on the Iowa side. It hasn't been necessary to tie down the line between state and private ownership because development for recreation was not considered feasible because of constant change.

Now, with the water level controlled and channelization work nearing completion, the development of the river for recreation becomes a possibility and a necessity.

Two basic problems of land and water ownership affect the development of the Missouri River for recreational use. One is the difference in state laws in Iowa and Nebraska affecting public ownership and, two, in Iowa, the matter of quieting title to lands believed to be state-owned.

IN NEBRASKA

Nebraska law provides that the riparian owners have title to the bed of the river to the center of the channel or to the described boundary line, whichever the case may be. Thus, all lands in a proposed project area lying west of the Iowa boundary but

east of the new channel are in Nebraska and owned by private owners and must be purchased if needed for project development. The question arises—can the state of Iowa own lands in another state?

IN IOWA

Iowa law states that all lands below the mean high water mark and the center of the channel or a described boundary line are in the name of the state of Iowa. It is conceivable that Iowa could sell lands to Nebraska owners that lie west of the new channel. By Iowa law, jurisdiction over meandered streams is conferred upon the State Conservation Commission. *The Commission must, in exercising its duties to provide for fish and game conservation and other outdoor recreation, do whatever is necessary to manage these lands. It must also, as it deems necessary, establish and mark boundary lines between state property under its jurisdiction and privately owned property.* Islands in meandered streams are also held to be the property of the state.

During the years of constant change in the river there were private individuals who made claims to or at least made unauthorized use of lands that technically belong to the state of Iowa. In some cases the state's right to these lands have been challenged in the courts. (See pages 32 and 34).

One issue, the Tyson Bend case, was brought to Federal District Court as the result of a condemnation initiated by the Federal Government. Land was condemned for the relocation of the river. The case was presented to the District Court to determine who owned portions of the condemned land and would be eligible for the funds being paid for the land. The District Court ruled that certain portions did belong to the state of Iowa. This decision was appealed to the Circuit Court of Appeals at St. Louis.

This court upheld the lower court decision. *This action will help in declaring islands to be state-owned.* It is believed that as the Conservation Commission proceeds with its legal assignments there will be more cases where quiet title actions will be taken to the courts.

As the situation now stands project development is hampered by the cloudy title to lands on the Iowa side of the state boundary. The rapidity of development on many project areas will be gauged by the settlement of land ownership problems. A lack of knowledge on exact ownership lines also prevents the state of Iowa from acquiring lands needed for access to water or for other shoreline development." (Emphasis supplied.)

Under the heading THE STATE BOUNDARY PROBLEM appears the following:

"When Iowa became a state the boundary between Iowa and Nebraska was set as the center of the channel of the Missouri River. In 1943 a boundary compromise between the two states established the boundary as the center of the channel as shown in the alluvial plain maps of the Missouri River as identified in the Code of Iowa, 1958.

The 1943 compromise became necessary because by that time a great deal of channel stabilization has been completed. *Because the new channel did not always follow the old river bed* it became necessary to redefine the location of the state's boundary. At present the boundary line follows the center of the stabilized channel except for Carter Lake, Iowa from Council Bluffs south to the state line.

In recent years channelization work has been going on from Council Bluffs north to Sioux City. This work has brought about a situation whereby 39.6 miles of the river lie wholly in the state of Ne-

braska. This condition can happen because the boundary does not change with the location of the new channel and because the new channel does not follow the maps as adopted in the 1943 compromise. This has resulted in the situation whereby several thousands of acres of lands and waters are within the state of Nebraska but east of the new channel and the same applies to Iowa lands and waters.

Several of the cut-off oxbows being considered for development are east of the new channel and are made up of Iowa and Nebraska lands. This situation presents two major problems. One, it is unlikely that Iowa funds will be expended for development because the main benefits may accrue to citizens of Nebraska. For the same reason it may be difficult to use Iowa funds, even if it can be done legally, to acquire Nebraska lands because even though state-owned, citizens of another state may derive the major benefits. Under these circumstances it may also prove to be difficult to acquire and develop shorelands adjacent to these areas of dual ownership. It seems unlikely Iowa could spend state funds for access to an island area within the state of Nebraska.

As long as federal funds are used for this purpose no such problems exist. To be practical, however, it is obvious that the federal government will not do all the acquisition and development needed. If, for example, a Nebraska owner refused to sell his land needed for a project the entire operation could be halted. *The state of Nebraska does not have eminent domain.* If the boundary is set as the center of the new channel these lands would be in Iowa and could be acquired by condemnation if necessary.

If the oxbows are completely cutt (sic) off from the river a Nebraska resident would have to enter the area over Iowa ground. This will result in real enforcement problems on fish and game laws for ex-

ample. At present Nebraska does not have legislation allowing a reciprocal agreement with Iowa on boundary waters. Complicated agreements will have to be worked out in order to allow residents of both states the use of such areas. *All this would be cleared up immediately when the boundary is set as the center of the newly designed channel.*

One possibility remains—the federal government could acquire and/or condemn all such lands and transfer the administration to the state of Iowa. This approach does not seem practical or even likely.

The development of the Missouri River for recreational use would be expedited to a large degree if the state boundary is set as the center of the new channel.” (Emphasis supplied.)

The report then mentions TWENTY-FIVE POTENTIAL RECREATION AREAS and provides:

“The very title to this chapter is exciting in promise for the future it offers. The statement itself indicates the possibility of 25 new recreation areas, and with proper planning and development 192 miles of river *plus* 25 recreation areas adjacent to the river will be made available to the public.

From field studies made to date along with close analysis of the channelization plans prepared by the Corps of U. S. Engineers it appears there can be 30 possible recreation areas along the river from Sioux City to the Iowa-Missouri state line.

Of the 30 areas, the 9,400 acre DeSoto Bend area is already being developed by the Federal Fish and Wildlife Service, and four areas cannot yet be finally identified because channelization plans have not been indicated. The four areas are mentioned here only to point out the possibility of more to come.

Of the remaining 25 areas, four will be on the Nebraska side of the new channel and 21 on the Iowa side.

The 25 areas contain an estimated 15,567 acres of water, land, marsh and sand dunes. There are now 11,807 acres on the Iowa side of the boundary and 3,760 in Nebraska. To get a better picture of the real situation, however, it is best to consider the 21 areas that will be on the Iowa side of the new channel. These are the areas of most interest to Iowans. Iowa now owns land west of the new channel but development is unlikely because these areas could be reached only by water, crossing the river. These acres could be sold or traded for land east of the new channel.

All acre figures presented herein are estimated from maps and aerial photos and do not include acres that will be within the new channel.

The 21 areas on the Iowa side total to 13,497 acres and are made up as follows:

Water	4,132 acres	Marsh	1,960 acres
Land	6,115 acres	Sand dunes	1,290 acres

Of this total acreage, 10,182 acres are now in Iowa and the remaining 3,315 in Nebraska but east of the new channel. A few acres are now privately owned in Iowa and will have to be acquired.

Impervious levees are needed at the upper end of seven areas and on one area at both the upper and lower ends. New levees are already approved and money appropriated by Congress on one area. Three of the proposed areas are strictly access sites to the river itself and will be purchased.

Much natural habitat for fish, furbearers and waterfowl has been lost by the narrowing of the channel. More acres having recreational potential have been

lost from the first flood plain because floods have been controlled. This has allowed private owners to clear thousands of acres of timber and brush. A total of 39.6 miles of river is now entirely in Nebraska, reducing the Iowa shoreline by that length. It is absolutely essential that any remaining resource be protected and developed for the public. This is the plan for the 13,497 acres making up the 21 areas on the Iowa side.

The possibilities for every form of outdoor recreation will be explored on all of these lands and as funds are made available the required facilities will be provided.

Through the next 50 pages each of the possible 25 areas are discussed. Each is located in relation to the river and the nearest town. Each is described as it exists now and recommended action is included. Aerial photographs, both color and black and white are provided to give a clear understanding of the physical aspects and future problems in connection with each unit."

The report then considers various named areas and has comments such as the one on page 12 concerning Browers Bend:

"RECOMMENDED ACTION: First quiet title in the name of the state. *If state is granted title* this land could be used as trading stock for land in the Snyder Bend area now owned by Nebraskans. . . ." (Emphasis supplied.)

On that same page is found:

"FUTURE PUBLIC ACCESS: No access by land from the Iowa side. This island has been partly cleared and some acreage is under agriculture. Some new fencing has been done recently so *if we receive a favorable title from the circuit court of appeals,*

we should quiet title on this area at once. It should also be considered to start suit to quiet title on this area at once because records show that it was an island and is partially so at present. This island has some very good agricultural land.” (Emphasis supplied.)

This is the *Darmouth College* case which eventually was decided against the State of Iowa. At page 14 a discussion of Snyder Bend appears and under RECOMMENDED ACTION it states:

“This cut-off should be saved by construction of cut-off levees by the Corps of Engineers. If this attempt is successful an access area of 15 acres should be acquired along the eastern shoreline of Iowa. . . . A quiet title action may be necessary to prove state ownership of the water area between the boundary line and the present Iowa shoreline.”

At page 16 under RECOMMENDED ACTION concerning Glovers Point, the report states:

“Quiet title to Iowa land in the name of the state so in the event of sale or trade clear title could be granted. . . .”

At page 18 under Winnebago Bend the RECOMMENDED ACTION is:

“Quiet title to 1050 acres as shown above. *If title is granted to State of Iowa* a 15 acre public access area should be acquired somewhere along the southeastern portion of the area.” (Emphasis supplied.)

This is the area considered in the *Flowers Island* case and will be discussed elsewhere in this brief.

At page 22 under Monona Bend the statement is made:

“If the State of Iowa can trade land here for lands in Blackbird Bend, immediately below, then a quiet title action would become a prerequisite part of this trade.”

At page 28 under Upper Decatur Bend the report says:

“... Quiet title action should be initiated at once. *If title is established in the state of Iowa* an access can be built off the bridge grade and access and ramp facilities off Sunset Island to the river proper and the lake side . . .” (Emphasis supplied.)

At page 30 under Middle Decatur Bend the following is shown as recommended:

“... Title to water area on the Iowa side should be quieted and efforts made to acquire Nebraska lands and waters to the new channel. If the State of Iowa *gains title to lands in the southern tip of this area and across the new channel*, these lands could be traded for Nebraska lands in the Middle Decatur area.” (Emphasis supplied.)

At page 32 the report discusses Deer Island and under RECOMMENDED ACTION states:

“A quiet title action has been completed in Harrison County District Court. If this case is decided in favor of the state of Iowa, commission planners may proceed to work out a development and public use project . . .”

This is the *State of Iowa v. Raymond* case and was decided in favor of the State of Iowa.

At page 34 the Planning Report discusses Tyson Bend and under RECOMMENDED ACTION the Report states:

“It was in this area that the question of whether or not a Nebraska landowner can accrete across a state line arose. This case was tried in Federal District Court and the owner ruled against. The case was appealed to the Circuit Court of Appeals. The lower court’s decision was upheld.”

This case also will be discussed in a different portion of the brief. We would point out here that the Planning Report emphasizes Iowa’s position in the *Tyson* case that a Nebraska landowner’s title is cut off at the state line and Iowa used the jurisdictional line as the basis for the commencement of its title under the doctrine of state ownership of the beds of the Missouri River. This is a situation where the establishment of a fixed line by the Iowa-Nebraska Boundary Compact of 1943 definitely caused a changed result from what would have been the situation had the Compact not been adopted and had the boundary still been a movable river boundary. It is Plaintiff’s position that the Compact did not change private property rights so as to create this result.

At page 36 the Planning Report discusses California Bend and under PHYSICAL DESCRIPTION the report says:

“This area is all east of the channel and is entirely in Iowa since it is also east of the state boundary as set in the 1943 compact. The area is made up primarily of abandoned river channel with the acreages of the various types shown in the following table. The 1960 spring flood nearly ruined the area but with a small amount of dredging the area could be made into an excellent fish propagation and wildlife area.”

Then under RECOMMENDED ACTION the Report states:

“The title to this land should be quieted, probably under the principle of abandoned channel ownership. An impervious levee is needed at the upper end. The dredging or drag lining to build this levee would be of value in developing fish and game habitat. Because of its nearness to the DeSoto Bend area just to the south and the possibility of development on the Wilson Island area no development is planned here except for those activities needed to improve it for a fish propagation area and for the wildlife refuge. The area has been posted as a wildlife refuge by the Conservation Commission since 1956.”
(Emphasis supplied.)

This area will also be discussed elsewhere in the brief and we will only point out here that Iowa's claim to quiet title to this area is “probably under the principle of abandoned channel ownership.” This is the same area that was cut off by the Corps of Engineers in 1938 when they dug a canal completely in Nebraska and condemned land against the Menckes and, at the time of the Compact, the entire river channel was located in Nebraska.

Page 42 considers Nettleman Island. Under PHYSICAL DESCRIPTION the Report states:

“This is one of the five islands between Council Bluffs and the Iowa-Missouri state line. All five are on the Iowa side of the new channel and have obviously been formed as islands. Of the 1550 acres, 1200 acres are under cultivation and can be considered as very good land.”

Under PRESENT PUBLIC USES the Report says:

“No uses by the public are made since it is being claimed by individuals as private property.”

Under RECOMMENDED ACTION the statement is made:

"It is believed that this island as well as the others from hereon south are state-owned and therefore the title to these islands must be quieted in the courts in the name of the state of Iowa. In the event the title is quieted in the name of the state then parts of them could be used for recreational purposes and perhaps some of it could be cropped in such a way to hold migratory waterfowl." (Emphasis supplied.)

Under FUTURE PUBLIC USE the Report says:

"None planned now until title to the islands is assured."

Also, under FUTURE PUBLIC ACCESS the Report states:

"This would be planned once title is quieted."

Page 44 mentions Auldon Bar Island and under PHYSICAL DESCRIPTION says:

"This area is another one of the areas between Council Bluffs and Hamburg which are definitely formed as islands and since the redesigning of the channel is complete here, they lie entirely within Iowa and east of the 1943 compact. Of the total acres, 600 acres are now under cultivation and being used by private interest."

Under RECOMMENDED ACTION:

"The basic action here is to quiet title. *If the title is quieted in the name of the state* then future plans can be made for development for recreational uses. No further action is recommended at this time." (Emphasis supplied.)

FUTURE PUBLIC ACCESS includes the statement:

“... This also will depend on whether or not the state *gains title to this land* and what use it can make of it once title is gained.” (Emphasis supplied.)

Page 46 considers Copeland Bend Island and includes the following language:

“This island differs from Auldon Bar Island only in that it has less land under cultivation. Of the total acreage 600 acres is under cultivation, 600 acres is in mixed timber and 200 acres in low swampy land and marsh.”

Under RECOMMENDED ACTION:

“For the time being only action recommended here is that the state claims this island and has title quieted in its name.”

Page 48 then describes Otoo Bend Island and states:

“This island is another of the series on the Iowa side of the state boundary that have obviously been formed as islands but have been occupied by private interests and put under cultivation. Of the total of 550 acres, 450 are under cultivation. The remaining 100 acres are mixed timber and swampy marshlands.”

Under RECOMMENDED ACTION the Report says:

“Quiet title in the name of the state. If title is granted in the name of the State of Iowa then plan for the use of these islands. No further recommendations are made because of the possibility of a long time before the title is quieted and, of course, plans would be determined then based on need.”

Page 50 discusses State Line Island and describes it as:

“This 110 acres is the portion of a much larger unit lying mostly in Missouri. At the present time it can be considered as timber land. The area has been surveyed by state crews.”

Under RECOMMENDED ACTION:

“Since the state has already made surveys on this land the initial step has been made towards quieting title in the name of the state. In the event title is settled in the name of the state of Iowa then planning for recreational use can begin at that point.”

In all of these areas they are described as being on the Iowa “SIDE OF NEW CHANNEL”. Consequently, the “NEW CHANNEL” has some bearing upon the Report. Some of the areas are on the Nebraska side and some on the Iowa side. The present so called “State Boundary Line” is also marked on the description of most of the areas so Iowa is using their concept of the present or Compact boundary line in connection with their claims. Other areas are described in the report but have not been specifically mentioned here.

At pages 58 and 59 the “existing recreation facilities” are mentioned and “existing river access sites” and for the most part they do not include the areas Iowa is asserting are state-owned in the Planning Report.

The Report also states at page 60:

“* * * The Missouri River is just becoming a major recreation center. Only recently have the people begun to use the river itself for boating, skiing and sport fishing. More use is being made of the beau-

tiful sand dunes for picnicking, and camping. With the river under control and the potential cut-off lakes constructed these activities will increase by leaps and bounds. Pressure for use by the public will reach a point that would have been unbelievable only ten years ago.

It is normal to expect that industrial development will expand along the Missouri. This will result in more people living in western Iowa and by the very nature of this type of occupation the pressure for recreation areas will increase in proportion.

Early planning and development is in order to be prepared for the demand to come."

Under WORK OF OTHER AGENCIES found at page 62 the report recognizes that: ". . . the Corps is involved in the construction and control of the upstream reservoirs and the channelization work being done on the river itself. Many of the Corps activities directly affect recreational development and public use of the river." The RECOMMENDATIONS are found at page 64 and include:

"RECOMMENDATION I

Those interested in the recreational development of the Missouri River must know the potential loss to recreation if immediate action is not taken. The channelization of the river has caused the loss of thousands of acres of wildlife habitat and this loss will continue if the remaining oxbows are not saved.

RECOMMENDATION II

Make every effort to secure needed legislative appropriations for the construction of cut-off levees and impervious levees where required to make the cut-off oxbows slack water lakes and marshes. On

current new channel cut-offs, approval of and funds for these levees must be obtained at once to allow the U. S. Corps of Engineers to do the necessary construction.

RECOMMENDATION III

Follow through all the legal processes to clarify and or obtain good title to all lands and waters belonging to the state of Iowa along the entire stretch of the river from Sioux City to the Iowa-Missouri state line. This activity has been started (see text) but every effort must be continued.

RECOMMENDATION IV

Explore all the legal aspects in relation to the state of Iowa gaining title to all lands within the state of Nebraska but lying east of the newly designed channel. Early action is essential on this point because if the center of the newly designed channel is not designated as the Iowa-Nebraska common boundary then the legality of the state of Iowa purchasing land in another state must be considered. Legislation during the 59th General Assembly may be needed.

RECOMMENDATION V

Proceed immediately with the study of a possible overall waterfowl refuge system along the 192 miles of boundary river.

RECOMMENDATION VI

Proceed immediately with the study of a multiple development and use plan on those lands and waters now under the jurisdiction of the Conservation Commission and, secondly, to begin the same study of those lands and waters likely to be under the Commission's jurisdiction. These to be followed by an action program.

RECOMMENDATION VII

The Conservation Commission should take a more active part in the proceedings of the Missouri River Inter-Agency Committee, the Missouri River States Committee and the Missouri River Reservoir Operations Committee. Serious study should be given to the need for a Lower Missouri River Conservation Committee functioning along the same lines as the Upper Mississippi River Conservation Committee, a highly successful group in relation to recreation.

RECOMMENDATION VIII

The Conservation Commission should maintain close liaison with all governmental agencies who have an interest in the river and help work out the most productive working relationship with these agencies.

RECOMMENDATION IX

Further emphasis should be placed on biological and economic studies of this river to provide a better base of operations for more detailed planning and development. This should include studies relating to use of the river itself in addition to the potential oxbow lakes and the changes to inland lakes resulting from the channelization work.

RECOMMENDATION X

This river offers an enormous potential recreational area to the citizens of Iowa. Every effort must be made to do whatever is required to carry out the above nine recommendations and to carry the ball toward a completed plan and development."

Plaintiff asked the Defendant in Interrogatory No.

20:

"Does Part I of the Missouri River Planning Report of the State Conservation Commission of January

1961 represent the present policy of the State of Iowa or any branch thereof concerning acquisition of or proof of interest in lands referred to in such report?"

Iowa's answer to Interrogatory No. 20 was:

"Yes. We believe that a fair and reasonable construction and interpretation of Part I of the Missouri River Planning Report constitutes a fair statement of Iowa's present policy, but this is not to say that the construction and interpretation placed thereon by Nebraska constitutes any fair statement of Iowa's present policy. Nebraska construes and interprets the document as a statement that Iowa intends to acquire all sites mentioned therein by court action which it construes to be in the nature of 'land grabs', but Iowa points out that this is no fair construction or interpretation of the document because in truth and in fact Iowa proposes in the document to acquire many of the sites mentioned therein by purchase or exchange." (Vol. XI, p. 1593).

THE NOTTLEMAN ISLAND AREA

On March 18, 1963, the State of Iowa filed a Petition in Equity in the District Court of Iowa in and for Mills County captioned "*State of Iowa, Plaintiff, v. Darwin Merritt Babbitt, et al.*, Equity No. 17433", attempting to quiet title to certain land in Mills County, Iowa, presently bordering the Missouri River on the eastern or Iowa side. (Ex. "C" attached to Complaint and Ex. P-2615.) The only allegations in this Petition which would indicate to the defendants the grounds for the action are that the plaintiff State of Iowa is the absolute and unqualified owner of the real estate described and that

the defendants make claim to the real estate but “. . . all such claims are spurious and wholly without right.”

Paragraph 4 of the Petition also stated:

“That the plaintiff has been credibly informed and believes and hereby alleges that one or more of the defendants have stated or published remarks to the effect that any attempt by any agents or employees of plaintiff to view, inspect or survey the subject real estate of this case, *such agents and employees would be physically and violently stopped and prevented from so doing.* That in order to ascertain the precise boundaries of the subject real estate of this case, a survey will be necessary; that an order of this court should issue pursuant to Iowa Rule of Civil Procedure No. 131 permitting plaintiff by its officers, agents and employees to enter on the subject real estate and on lands adjacent thereto if necessary for the purpose of inspecting, viewing, measuring, surveying, photographing, locating section corners and locating monuments as may be necessary in order for plaintiff to make and file herein an exact legal description of the subject real estate and in order for plaintiff to prepare for trial of this case.” (Emphasis supplied.)

The petition was signed and verified by Michael Murray with the names of Evan Hultman, Attorney General of Iowa, and William J. Yost, Assistant Attorney General of Iowa, also appearing in the signature block. Iowa then filed a First Amendment to its Petition in Equity on March 26, 1963, and on January 14, 1964, the State of Iowa filed a Second Amendment to Plaintiff's Petition in which it made some changes in the description of the property claimed.

Then when the owners attempted to find the basis

for Iowa's claim by way of interrogatories, the State of Iowa gave the following answers:

“Interrogatory 1. Describe specifically by what acts or instruments plaintiff claims ownership of the land described in plaintiff's petition.

Answer 1. Plaintiff's claim of ownership of the land described in plaintiff's Petition as Amended is not based on any acts or instruments.

Interrogatory 2. Describe what event, instrument or act commenced plaintiff's claim of ownership to the land described in plaintiff's petition and the date of said event, instrument or act.

Answer 2. Plaintiff acquired its ownership of that part of the bed of the Missouri River which then lay within the State of Iowa when the State of Iowa was admitted to the Union in 1846. As the Missouri River changed its bed after 1846, plaintiff acquired title to all beds which the river occupied from time to time within the State. This principle of law was first announced by the Iowa Supreme Court in the case of *McManus v. Carmichael* in 1856, 3 Iowa 1, and this legal principle has been continuously applied by the Iowa Supreme Court down to the present date in all cases involving ownership of the beds of navigable streams within the State of Iowa. Insofar as the description of real estate contained in plaintiff's Petition as amended constitutes a description of river bed (areas below ordinary high water mark), the above constitutes its answer to Interrogatory 2. The land contained within the real estate described in plaintiff's Petition as Amended formed as accretion to the State-owned bed of the river. State ownership of it never ceased. The State continued ownership of said land even after it arose above ordinary high water mark because the land formed as an accretion to the State-owned bed of the river. No

exact date when this land arose above ordinary high water mark can be given because the process was gradual and occupied a period of several years. For answer to Interrogatory 2, plaintiff states that the first portion of this land to arise from the river bed above ordinary high water mark so arose within ten years prior to 1923.

Interrogatory 3. State whether plaintiff has continuously claimed ownership of the property described in plaintiff's petition since the time of the event under which plaintiff now claims ownership.

Answer 3. Yes.

Interrogatory 4. State whether plaintiff is now in possession of the land described in plaintiff's petition and, if so, describe the extent and nature of such possession.

Answer 4. (Plaintiff objects to Interrogatory 4 on the ground that it inquires into matters which are irrelevant and immaterial to any issue in this case, it not being legally or equitably possible for any claim of ownership adverse to plaintiff to be based or founded on adverse possession as against plaintiff. For this reason, plaintiff has made no investigation concerning exactly who is or may be in possession of parts or portions of the disputed area adversely to plaintiff and plaintiff should not be required to make an investigation concerning possession merely for the purpose of answering interrogatories. The matter of possession is irrelevant and immaterial for the further reason that mere possession cannot have any significance in law or equity unless the same, from its inception, be coupled with color of title, and in this case, none of defendants have ever had any color of title. Interrogatory 4 is objected to for the further reason adverse possession is not at present an issue in this case, and if the same is to become an issue, it can only do so

by means of defendants raising the same as an affirmative defense. That therefore, before plaintiff should be required to answer any interrogatories or present any proof concerning possession of that area in controversy, defendants, or some of them, must plead and offer some proof of adverse possession. That the burden of pleading and proving adverse possession rests with the defendants in this case, and Interrogatory 4 is an improper attempt under IRCP to shift the burden of research and investigation on said issue to the plaintiff.)

Subject to the Court's rulings on the foregoing objections, plaintiff's answer to Interrogatory 4 is that plaintiff is now in possession of that part of the area in controversy which presently constitutes Missouri River bed; that is to say, that part of the area which is presently below ordinary high water mark of the river. Plaintiff is also in possession of all parts of the area which are above ordinary high water mark and which have not been taken under possession by private parties or persons. The extent and nature of plaintiff's possession is that all portions possessed by it are in the public domain and not adversely possessed by private parties or persons.

Interrogatory 5. State whether plaintiff has ever been in possession of the land described in plaintiff's petition and, if so, describe the period of time involved and the extent and nature of such possession in plaintiff.

Answer 5. (Same objections as noted in Interrogatory 4.) Subject to the Court's rulings on the foregoing objections, plaintiff's answer to Interrogatory 5 is that plaintiff is now in possession of all that part of the described area which is presently below ordinary high water mark and therefore presently constitutes Missouri River bed. As various

portions of the described area arose above ordinary high water mark, plaintiff continued in possession of them until the defendants and their immediate and remote grantors illegally, improperly and without any right to do so, took possession of various portions from time to time. The extent and nature of plaintiff's possession was and is that all portions possessed by it from time to time were in the public domain and not possessed by any private parties.

Interrogatory 6. State whether or not the defendants are in complete, actual and sole possession of the land described in plaintiff's petition and, if not, state who is now in actual possession of said land.

Answer 6. (Same objections as noted in Interrogatory 4.) Subject to the Court's rulings on the foregoing objections, plaintiff's answer to Interrogatory 6 is "No". For further particulars, plaintiff refers to Answer 4. Concerning portions of the area which are not presently in plaintiff's possession, plaintiff hereby states that some portions of the area have been cultivated and farmed for several years last past. Plaintiff, deeming the entire matter of possession to be irrelevant and immaterial, has no information as to how long the various tracts in the area have been cultivated or by whom this has been done, nor any exact descriptions of the tracts cultivated by different parties.

Interrogatory 7. State whether plaintiff has in its possession any deed, abstract of title or other instrument tending to establish in the plaintiff ownership of the land described in plaintiff's petition, and, if so, give a specific description of the same.

Answer 7. No.

Interrogatory 8. If plaintiff claims a portion of the land described in its petition was an island in the Missouri River state at what time did said island

first rise above the ordinary high water mark, and in which state did said island form, and who owned the bed upon which said island formed.

Answer 8. As stated heretofore, plaintiff claims all parts of the described area which are now above ordinary high water mark because the same formed as an island in the Missouri River, and plaintiff claims other portions of the described area as accretions to said island. The island first arose above ordinary high water mark between 1913 and 1923 in the State of Iowa. The State of Iowa owned the bed upon which said island formed. The formation of accretions to said island has continued since the original formation of the island down to the present time, and accretions are still forming to the island.

Interrogatory 9. State whether or not plaintiff has ever filed in the office of the Mills County Recorder of deeds any statement in writing duly acknowledged describing the real estate involved in plaintiff's petition or any part of it, the nature and extent of the right or interest therein claimed by plaintiff, and stating the facts upon which the same is based, or has any other instrument of any nature been filed by plaintiff.

Answer 9. (Plaintiff objects to Interrogatory 9 on the ground that it inquires into matters which are irrelevant and immaterial (sic) to any issue in this case, plaintiff's claim to the area involved in this case being bottomed on the law of the State of Iowa which all parties to this case were and are presumed to know and to have known.) Subject to the Court's ruling on the foregoing objection, plaintiff's answer to Interrogatory 9 is "No".

Interrogatory 10. Has the plaintiff, State of Iowa, any contract, agreement or understanding with any commission or political subdivision of the State of Iowa in connection with the filing and prosecution

of this suit in the name of the State of Iowa as plaintiff? If so, state whether such contract, agreement or understanding is oral or written, and identify the same and state the substance of the same.

Answer 10. (Plaintiff objects to Interrogatory 10 on the ground that it inquires into matters which are irrelevant and immaterial to any issue in this case.) Subject to the Court's ruling on the foregoing objection, plaintiff's answer to Interrogatory 10 is "No".

Interrogatory 11. Is the State Conservation Commission of the State of Iowa a party of interest in any capacity in this litigation?

Answer 11. (Plaintiff objects to Interrogatory 11 on the ground that it inquires into matters which are irrelevant and immaterial to any issue in this case.) Subject to the Court's ruling on the foregoing objection, plaintiff's answer to Interrogatory 11 is "No".

Interrogatory 12. What is the interest, if any, of the Iowa State Conservation Commission in this litigation?

Answer 12. (Plaintiff objects to Interrogatory 12 on the ground that it inquires into matters which are irrelevant and immaterial to any issue in this case.) Subject to the Court's ruling on the foregoing objection, plaintiff's answer to Interrogatory 12 is that the Iowa State Conservation Commission is a political subdivision or department of plaintiff, possessing the power, authority, and duty of managing and controlling the area involved in this litigation if it be determined that same is owned by plaintiff.

Interrogatory 13. Has the State Conservation Commission of the State of Iowa ever relinquished claim to the land described in plaintiff's petition or any part of it?

Answer 13. No.

Interrogatory 14. Is the land described in plaintiff's petition or any part of it generally known as Nottleman's Island? If so, how long as it been so known?

Answer 14. Yes, for approximately 26 years.

Interrogatory 15. Was the land described in plaintiff's petition or any part of it at any time in the State of Nebraska? If so, during what period of time?

Answer 15. No.

Interrogatory 16. Was any part of the land described in plaintiff's petition in the State of Nebraska in 1941? If so, what part?

Answer 16. No.

Interrogatory 17. Was any part of the land described in plaintiff's petition subject in 1943 to the provisions of the Iowa-Nebraska Boundary Compromise, Chapter 306 H. F. 437 Acts 50th General Assembly, effective April 21, 1943? If so, what part?

Answer 17. No.

Interrogatory 18. Has the plaintiff, State of Iowa, and the defendant Mills County, Iowa, collected taxes on the land described in plaintiff's petition for more than fourteen years last past? Have the defendants and their predecessors in title paid such taxes?

Answer 18. (Plaintiff objects to Interrogatory 18 on the ground that it inquires into matters which are irrelevant and immaterial to any issue in this case, because any taxes which any of the defendants may have paid to plaintiff on the land involved in this case were infinitesimal. Interrogatory 18 is objected to for the further reason that the matter of payment of taxes can only become material in this case if the defendants or some of them elect to plead some affirm-

ative defense based thereon, and no such affirmative defense has been pleaded by any defendant at the present time; therefore, at present, the matter of taxes is irrelevant and immaterial. That Interrogatory 18 is an illegal, improper and unauthorized attempt by defendants to shift the burden of proof from themselves to plaintiff on an issue which is not now an issue in the case and on which, if it becomes an issue, the burden of proof will be on them. That plaintiff should not be subjected to the burden of researching, investigating and proving the facts concerning said issue unless and until some burden is cast upon it by reason of the defendants or some of them having pleaded and offered sufficient proof on said issue to shift some burden to plaintiff. That any facts concerning taxes are either already in the possession of defendants or are as readily available to defendants as to plaintiff and therefore, Interrogatory 18 is not for discovery purposes and is not authorized by IRCP). Subject to the Court's ruling on the foregoing objection, plaintiff's answer to Interrogatory 18 is that taxes have or have not been paid on the land involved in this case as shown by the books and records of the County Treasurer of Mills County, Iowa. Therefore, for particulars as to Interrogatory 18, plaintiff incorporates into this Answer said books and records of the Mills County Treasurer and makes the same a part of this Answer by reference.

Interrogatory 19. Does plaintiff claim that any part of the land described in plaintiff's petition was formed by accretion? If so, state when said accretion or accretions occurred, in which state said accretion or accretions occurred, and who was the owner of the lands to which said land accreted.

Answer 19. Yes. The accretions to the bed of the river started forming between 1913 and 1923 and have continued forming continuously until the present time and are still forming. All said accretions have

formed and are forming in the State of Iowa and to the bed of the Missouri River which has been at all times owned by plaintiff.

Interrogatory 20. Does plaintiff claim that any of said land originated with an avulsion? If so, state when avulsion occurred, in which state said land was located at the time said avulsion occurred, and who was the owner of said land before said avulsion occurred.

Answer 20. No.

Interrogatory 21. State the names, addresses and present employers of all persons who are known to have information or knowledge concerning the formation of said land and the possession of said land since its formation and at the present time.

Answer 21. Plaintiff at the time of answering these Interrogatories does not know of any persons who have personal eyewitness knowledge concerning the formation of said land. R. L. Huber, formerly employed by the U. S. Army Corps of Engineers, now retired, of Omaha, Nebraska, possesses knowledge and information concerning the formation of said land by reason of having studied books, records, maps, photographs, and other data in the possession of the U. S. Army Corps of Engineers office at Omaha, Nebraska. He also possesses eyewitness knowledge concerning formation of that part of the land which was formed since about 1936. Gerald J. Jauron, Earling, Iowa, an employee of plaintiff, possesses knowledge by reason of extensive investigation and study of records, maps, pictures and data of numerous government agencies, including U. S. Army Corps of Engineers and by reason of on-site studies and investigation. Ivan Windenberg, Des Moines, Iowa, an employee of plaintiff, has surveyed the area and made a study and investigation of the area and possesses in-

formation gained thereby. Plaintiff presumes that there are perhaps some residents of the vicinity of said land who possess information and knowledge concerning the formation of said land and the possession of it since its formation, but interviewing of such possible persons has not been accomplished at this time and therefore names, addresses, and present employers cannot be furnished at this time.

Interrogatory 22. State who now has record title to said land and which persons have record title as to which parts.

Answer 22. (Plaintiff objects to Interrogatory 22 because it calls for information irrelevant and immaterial to any issue in this case. Also, because it does not call for the best evidence of who now has record title to the land involved herein and which persons have record title to which parts, the best evidence of said matters being the records in the various county offices of Mills County, Iowa.) Subject to the Court's ruling on the foregoing objection, plaintiff for answer to Interrogatory 22 states that it is informed and believes that some of the defendants and immediate or remote grantors of the defendants attempted in about 1946 to record various spurious, fictitious instruments in Mills County, Iowa, which purported to establish that they had been the owners of various portions of the land involved herein when said land had been located in Nebraska and under and by virtue of the laws of the State of Nebraska, but plaintiff hereby states that said purported instruments of title were and are spurious and fictitious and of no force or effect to serve as the commencement of any record title in Iowa because no part or portion of the land involved herein was ever in the State of Nebraska or subject to the laws of the State of Nebraska or subject to jurisdiction of the courts of the State of Nebraska. Plaintiff is informed and believes that the county recorder and other county

officials of Mills County, Iowa, refused to accept said spurious and fictitious instruments for recording in said county and that thereupon the persons seeking to record said instruments commenced an equity action against said county officials to force them to so do. Plaintiff was not a party to said action and had no notice or knowledge thereof and therefore is not bound by any decision rendered therein. Plaintiff is informed and believes that this Court ordered the county officials of Mills County to accept said spurious and fictitious instruments for record and said county officials have complied with said Court Order. Plaintiff in answering Interrogatory 22 hereby states that the recording of said spurious and fictitious instruments in Mills County, Iowa, did not commence any lawful record title to any of said land, and if it be claimed by defendants that they now have record title in Mills County, Iowa, to any of the land involved in this case, based upon the recording of said spurious and fictitious instruments of title in about 1946, such record title is also spurious, fictitious, and of no legal force or effect.

Interrogatory 23. State how long each of the persons referred to in the answer to Interrogatory No. 22 and their immediate and remote grantors have continuously been shown by the record of title to have held chain of title to said land.

Answer 23. Same answer as to Interrogatory 22.

Interrogatory 24. State on which side of said land the main channel of the Missouri River now flows.

Answer 24. West.

Interrogatory 25. Did the main channel of the Missouri River ever flow on the other side of said land? If so, state when said change occurred and over what period of time said change took place.

Answer 25. Plaintiff's opinion is negative."

The above Interrogatories and Answers appear as Exhibit "E" and Exhibit "F" of Plaintiff's Complaint herein and also as Exhibit P-2615.

It can be immediately seen from Iowa's answers that, at the time they filed the law suit against the owners of Nottleman's Island, they disregarded all matters of record concerning the land, all matters of possession by the defendants, the payment of taxes by the defendants upon the land, and all eyewitness knowledge concerning formation of the land. They also took the position that they weren't required to make any further investigation into these matters and that the instruments of record were "spurious and fictitious" instruments.

Iowa's answers indicate that Mr. R. L. Huber and Mr. Gerald J. Jauron, both witnesses for Iowa in this case, had knowledge concerning the formation of the land by reason of having studied records, maps, photographs and other data from the Corps and some personal knowledge of formation of the land since 1936. Mr. Windenburg had also surveyed the area. This is apparently the extent of Iowa's knowledge or information or scope of investigation as indicated by those answers to interrogatories. As is also true in the Schemmel case, this is another situation where Iowa merely filed a quiet title action against the landowners without investigation of their titles and where Iowa has attempted to shift the tremendous burden of tracing and proving the past history of this land to the individual farmers, ignoring everything that has happened in connection with the land except certain assumed facts concerning its formation. As is evident

from the voluminous evidence presented in this case, the problem of proving formation of the land along the Missouri River is extremely difficult, expensive, and time consuming and is particularly so after the long passage of time during which facts, witnesses, and records may have long since disappeared or become obscured by the passage of time.

Iowa's answer to Interrogatory 17 also arbitrarily takes the position that no part of the land described was subject to the provisions of the Iowa-Nebraska Boundary Compromise of 1943. They apparently have summarily dismissed any impact of the Boundary Compact even though their westerly line purportedly followed the Compact line.

Physical History of Nottleman's Island

The historical evidence shows that the Missouri River was originally in about the same position which it presently occupies in the Nottleman Island area but that, from the time the two states were admitted into the Union, it commenced to work easterly and cut away land on the Iowa side. Behind this movement, an island originally platted as Nebraska land which was immediately north of the area involved and referred to on early Corps' maps as Tobacco Island, began to enlarge both to the east and downstream on the Nebraska side of the river. The main navigable channel of the Missouri River was to the east or left side of this island or accretion area as it built on to the Nebraska side and, although at various times there may have been shallow water or chutes on the western side of the island, the main navigable channel constituting the boun-

dary between Iowa and Nebraska was on the eastern side until the island was divided by a channel of the Missouri River. In the 1930's, the United States Army Corps of Engineers placed the river in the designed channel and shut off the eastern channel by the construction of dikes. The river was consequently diverted to the west side of the island by man-made works without washing away the island. However, regardless of how the area formed, it was always considered to be a part of Nebraska until ceded to Iowa by the Compact and this was generally recognized by all the people in the area as well as by the actions of the two states.

For purposes of identification, the Nettleman Island area as shown by the Windenburg traverse in Iowa's Second Amendment to Petition in the case of *State of Iowa v. Babbitt*, is located along the east or left bank of the Missouri River south of Plattsmouth, Cass County, Nebraska. The precinct line between Plattsmouth and Rock Bluff Precincts, which is three miles south of the Plattsmouth Bridge, is opposite the extreme northern part of the traverse and the area extends approximately three miles to the south. While on the Nebraska tax rolls, this area was described as lots in Sections 3, 4, 9, 10, 15 and 16, T. 11 N., R. 14 E. of the 6th P.M. The center of the area is immediately east of Queen Hill, a prominent hill which adjoins the north part of the old town of Rock Bluff, Nebraska. Queen Hill has also been referred to as Rock Point and is slightly over a mile and three-quarters south of the precinct line. The lower tip of the area extends to immediately above another prominent rock hill located on the

Nebraska side called King Hill, or in earlier history Calumet Point.

If Iowa sections were projected west to this same area, it would be in Sections 17, 18, 19, 20, 29, 30 and 31, T. 71 N., R. 43 W. of the 5th P. M. Keg Creek or Watkins Ditch enters the Missouri River at the present time about a mile north of the northern tip of the traverse on the Iowa side. The Detsauer place (also known as the Buckingham, Carl Phelps, Diller or Dilley place), which has the painted garage and is along the main road from Bartlett to Pacific Junction, Iowa, is three-quarters of a mile east of Nottleman Island measured along the road to the area which is on the section line between Iowa Sections 17 and 20, T. 71 N., R. 43 W. of the 5th P. M. The lower southern tip of this area is one mile west of the site of Egypt School, or three-fourths of a mile west of Twin Lakes, which are in Iowa. The county line between Mills and Fremont County, Iowa, is one mile south of Egypt School and intersects the Missouri River opposite the lower part of King Hill.

For further purposes of reference, attached hereto and marked Appendix A is a reduced photographic reproduction of a portion of Ex. P-1039 which is the 1946-1947 Corps of Engineer tri-color map of the Nottleman Island area. The Windenburg traverse is not reproduced on this map and the water areas do not depict the situation exactly as it appears today.

Maps and Documentary Evidence

The maps documenting the location of the Missouri River in the Nottleman Island area were introduced along

with the testimony of Mr. Willis Brown, State Surveyor of the State of Nebraska. Mr. Brown was 56 years old and has been State Surveyor since 1960. As State Surveyor, he conducts surveys as requested by the Board of Educational Lands and Funds for school lands; he arbitrates disputes between surveyors; he is ex officio secretary of the Board of Examiners for Land Surveyors; and he is custodian of the records of surveys in Nebraska including the original government surveys. His duties are prescribed by the Nebraska statutes. He is a registered land surveyor in the states of Nebraska, Iowa and Missouri. He began surveying in 1930 for the U. S. General Land Office and worked with them until the fall of 1935, and since 1935, has been a Deputy State Surveyor on either a full or part-time basis until 1960 when he was appointed State Surveyor.

Along the Missouri River, Nebraska descriptions come from the 6th Principal Meridian and Iowa descriptions are designated from the 5th Principal Meridian. The right and left banks of the Missouri River are determined by facing downstream. The original government survey of Iowa was made in 1851 and 1852 in the Nottleman Island area and showed no islands in the river with Keg Creek running parallel to the Missouri River on the Iowa side the entire length of the area shown on the map. Keg Creek entered the Missouri River south of the Nottleman Island area (Ex. P-712). The Nebraska original government survey of 1856 shows an island on the Nebraska side of the Missouri River as being surveyed in Nebraska with the designation of Nebraska Sections 28, 33 and 4 (Ex. P-710 and P-711). The notation

“SLOUGH” is shown between the island and the Nebraska mainland. This island is also shown as being in Nebraska on the government connection survey of Hopkins and Haddock of 1857-58 (Ex. P-714). Mr. Brown testified that a mylar overlay (Ex. P-713) was prepared under his direction which shows the 1852 original government survey left bank (Iowa) and the 1856 original government survey right bank (Nebraska) and these banks were placed in position with information taken from the government tie survey. This exhibit shows the island on the Nebraska side of the Missouri River which was surveyed as a part of Nebraska and also provides a comparison indicating that, when extended, the Nebraska and Iowa section lines do not meet.

Mr. Brown testified that he reproduced these overlays to the same scale on a transparent material so that one plat could be laid on top of the other and the relationships between them could be seen. Some of the maps were to different scales and had different features shown, but all of the exhibits had several identifying features so that he was able to put one exhibit on top of the other to get it in the proper location. He placed targets on the overlays so that comparisons between the maps could be made and his controls were selected as close to the area in question as possible to minimize any error that might appear. He spent a good deal of time comparing the maps and they are placed exactly as they should be to the best of his ability. He concentrated his control on the island area and the error in the island area is very minimal.

Mr. Brown also prepared a mylar overlay of the present day Nottleman Island as described in the Second Amendment to Plaintiff's Petition in the case of *State of Iowa v. Babbit, et al.*, (Ex. P-1691). This outline of the island corresponds to the traverse as made by the Iowa surveyor, Mr. Windenburg, and may also be referred to as the Windenburg traverse or survey. When the present day Nottleman Island area (Ex. P-1691) is placed upon the composite of the original Iowa and Nebraska government surveys (Ex. P-713), the west 25% of the Nottleman Island area is shown in the Missouri River with the remainder appearing on the Iowa side. The Nebraska island appears to the northwest of Nottleman Island and still some distance from its present boundaries.

The U. S. Corps of Engineers Survey of the Missouri River of 1879 (Ex. P-715) and the mylar overlay prepared by Willis Brown (Ex. P-716), shows a large accretion area which is an apparent extension of the Nebraska island to the south and east. It is now labeled Tobacco Island and extends almost down to Rock Bluff on the Nebraska side. When the traverse of Nottleman Island (Ex. P-1691) is placed upon the 1879 survey (Ex. P-716), the approximate eastern one-half of the present Nottleman Island is still on the Iowa bank, but the large addition of accretion area appearing on the 1879 survey as a part of Tobacco Island on the Nebraska side of the river overlaps the northwest part of the Nottleman Island traverse. The river has moved to the east so that Keg Creek now enters into the Missouri River at mile 635 (1879 mileage) which is at the northern tip of the present

day Nottleman Island and is opposite Tobacco Island on the 1879 map. To the south, across from Calumet Point (King Hill) on the 1879 map (Ex. P-715) there is a reference to "Old Keg Cr."

The next Corps of Engineers Map is the Missouri River Commission Survey of 1890 which was published by the Missouri River Commission in 1893 (Ex. P-717 and P-718) and shows Tobacco Island with a great deal of accretion built up towards the south on the Nebraska side all the way downstream to below Rock Bluff. Keg Creek enters the Missouri River at about the same place as it did in 1879 (mile 630 of 1890 mileage), but the left bank below the mouth of Keg Creek has moved a little bit to the east. The right bank remains approximately in the same location but with the additional accretion, and Tobacco Island is now enlarged and extends nearly to Rock Bluff Point and is at least double its size from 1879. When the Nottleman Island traverse (Ex. P-1691) is placed upon the 1890 survey overlay (Ex. P-718), the area designated as Tobacco Island is now partially on the northwest portion of Nottleman Island and the accretion area below Tobacco Island and out from Rock Bluff Point is partially on the Nottleman Island area. The 1890 left bank runs through about the middle of the present island so that about one-half is to the right of the left bank and about one-half is to the left of it. There is a slight bend developing to the left and there is a little island shown in the river on the 1890 survey.

The river is shown as having cut further to the east in the Seth Dean Survey of January 23, 1895 (Ex. P-

1668 and P-1668-A). The field notes for the Seth Dean 1895 survey are found in Surveyor's Record No. 3 in the Office of the Mills County, Iowa, Auditor and the records show that the survey was made by order of the Board of Supervisors of January 18, 1895, as follows:

“That the County Surveyor make a survey of the Missouri River for the full length of the County on the west, and make plat of same. Also any Islands in the said river which may be wholly or in part the property of Mills County, and file same with the Auditor at his earliest convenience.” (Ex. P-622)

The field notes of Seth Dean, Mills County Surveyor, contain the following statements:

“The meander line as described above was run to correspond with the High water mark or boundary as defined by the Iowa Supreme Court, i. e. Taking the line as shown by the limit of the permanent growth of vegetation *no sandbars or Islands were found that had become permanently fixed so as to be subject to taxation.* The accretion was divided according to law among the several abutting (sic) tracts in proportion to their original water frontage.” (Emphasis supplied.) (Ex. P-622)

Mr. Brown has shown this 1895 Iowa bank line with relation to the 1852 original Iowa government survey (Ex. P-1668 and P-1668-A). The 1895 bank line runs parallel and to the east of the original Iowa government survey left bank from the northern part down as far south as the middle of Iowa Section 30 which is southeast of Rock Bluff. This is also illustrated by a comparison of the 1895 Seth Dean Survey (Ex. P-1668-A) with the 1890 Missouri River Commission Survey (Ex. P-718). When the traverse of Nottleman Island (Ex. P-

1691) is placed upon the 1895 survey (Ex. P-1668-A), it now appears that approximately two-thirds of the present Nottleman Island area is to the west of the 1895 left or Iowa bank.

A 1920 soil map attached to the soil survey of Mills County, Iowa, U. S. Department of Agriculture, Bureau of Soils (Ex. P-719) shows the river in the Nottleman Island area with a distinct easterly developed bend and, when the overlay of the 1920 Soil Survey (Ex. P-720) is placed upon the overlay of the 1890 survey (Ex. P-718), the left bank of the Missouri River is about 4500 feet to the east of the left bank of the 1890 survey along the road which leads into Nottleman Island which is also along the section line between Iowa Sections 17 and 20 extended. At that point, the river has cut completely east of the Nottleman Island traverse. It has also cut at the north at mile 635 (1890 mileage) where Keg Creek came into the river.

The 1920 Soil Survey does not purport to portray the true right, or Nebraska, bank of the river. However, there is a rough outline which apparently shows a large land area on the Nebraska side in the bend and the Missouri River is shown as being very narrow at this place. (Although there is a purported line with the designation "State Boundary" which, if the actual state line, would have placed almost all of Nottleman Island in Nebraska, this map was not offered to show the boundary, but was only offered to show the location of the river bank. Such a line purporting to show the state boundary also appeared on the 1905 U. S. Geological Survey Map in the

Schemmel area (Ex. P-214) but that map also was not offered to show the boundary, but only the location of the river. The unreliability of these state line designations was illustrated by Mr. Willis Brown when he testified that the United States Geological Survey map for the Sioux City South Quadrangle, Nebraska-Iowa-South Dakota of 1963 showed a line in the river referred to as the Nebraska-Iowa Boundary but which the witness examined and found to be in error from the Compact line by approximately 2,300 feet (Ex. P-1749). The witness stated this was just one of the many places where he had found a difference between the line represented on the geological survey quadrangle sheets and where the state line really is.)

This cutting of the Missouri River into the State of Iowa is further documented by records found in the Mills County, Iowa Auditor's Office in Ditch Book 3 (Ex. P-622). In 1922 several landowners including Catharine Fulton and J. W. Watts filed a PETITION FOR RIVER PROTECTION asking for a river protection district pursuant to "sections S 1989-a-1 and succeeding sections of Drainage Laws of Iowa of 1921 . . ." and the petition commenced:

"Your petitioners all being owners of land that will be taxed for the cost of the proposed protection work if the prayer of the petition be granted, respectfully call your attention to the present situation of the lands bordering along the Missouri River in sections 35-36 Township 72, range 44 and sections 31, Township 72, Range 43, sections 5-6-7-8-17-19-20-29-31 and 32, Township 71, Range 43, Mills County, Iowa, where the river is now cutting the east bank and threatening the destruction of valuable farming lands."

The petition asked for the examination of the entire river from the Plattsmouth Railroad Bridge southward to the Mills-Fremont County Line to determine at what points this protection work could be put into effect. The Board of Supervisors of Mills County appointed Seth Dean to make a survey and report on the expediency of such improvement. His report was submitted under date of September 25, 1922, and appears as REPORT OF COMMISSIONER in which he stated he had “. . . caused a pretty complete survey to be made of the river channel and present shore line from the C. B. & Q. R. R. Bridge near the south line of section 25 Township 72, Range 44, south to Mills-Fremont County line . . .” The report mentions that there are attached two exhibits:

“. . . ‘Exhibit A’ is a map of the proposed district showing the east and west shore lines of the river and the channel now occupied by flowing water, a number of more or less permanent Islands and sand bars also appear. Exhibit ‘B’ is a descriptive list of lands within the proposed district with the name of the owner.”

The report then states:

“The east bank of the river was meandered by the U. S. land surveyors in 1851 and was again surveyed by Mills County for taxation purposes in 1895. These lines are shown on the map. *I find that between the years of 1851 and 1895 the river carried away about 1140 acres of land and that since the official survey of 1895 there has been 1296 acres more taken making a total of 2436 acres. Some of this land had little value, but most of it was well worth preserving.*” (Emphasis supplied.)

Dean found that much work had been done between

Council Bluffs and Omaha by the railroad companies and private landowners at various points on both sides of the river to secure the bank against erosion and contracts had been made with Woods Brothers Construction Company of Lincoln, Nebraska for considerably more work along this portion of the channel. Therefore, he didn't include the territory north of the Plattsmouth Bridge in this district. His report then continued:

"The total length of river front between the Plattsmouth Bridge and the Fremont County Line is about 39,850 feet or 7.55 miles and along this front the river is now cutting away the land in three places, viz: in section 31-72-43 and sections 5 and 8 in 71-43 for a length of about 8000 feet.

"In sections 17 and 20 for a distance of about 6000 feet and in section 32-71-43 for about 1500 feet a total length of 15,500 feet, for 2.9 miles; with a strong probability of increasing the length of shore line necessary to protect as the bends are cut still farther to the eastward.

"Just how far east the river can cut its way under present conditions of railfall (sic), volume of flow and timber protection along the shore, it is impossible to say, but the present east slough bank and sections 5-7-20 and 29, 74-43 and sections 4-8-9-21-28 and 33 in 71-43 mark the east shore line of the river (sic) at sometime in the past."

His report then discusses methods of controlling the river and he then stated:

"To divert the current into a permanent channel and protect the land I recommend that ten retards be constructed at points along the east shore as follows, viz. . . ."

His report further stated:

“With an assumed market value of \$100.00 per acre the total cost would be fully covered by the loss of 600 acres of land, or about one fourth of the amount the river has already taken from the owners along this front since 1851.”

The Board of Supervisors of Mills County contracted with Woods Brothers Construction Company for the construction of the retards. The records in the Mills County Auditor's Office show letters and reports dated 1924 and 1925 stating that, following construction of the retards, the river cut behind some of them and destroyed others.

The Mills County records then show that certain landowners filed an action against Woods Brothers Construction Company, the Board of Supervisors of Mills County, and the Treasurer of Mills County, on July 20, 1925, enjoining the county officials from levying taxes to pay for the improvements and claiming that they were not constructed according to plans and specifications and the work had been useless and of no value (Ex. P-1080).

The case was tried in the District Court of Mills County, Iowa, and then appealed to the Iowa Supreme Court. The Seth Dean map appeared in the ABSTRACTS AND ARGUMENTS of that case captioned *F. E. Dashner, et. al. v. Woods Brothers Construction Company* in the Iowa Supreme Court Library in the State Capitol in Des Moines. The map (Ex. P-721), which is the same as “Exhibit A” referred to in Seth Dean's report, shows an easterly developed bend in the Nottleman Island area with a large island where Nottleman Island was located and a chute running around the west side of the island.

The "U. S. Meander Line 1851" is shown and to the east of that the "East Bank Missouri River Feb. 1895". On the island are shown the words "Island" and "Timber" and "Willows". The words "Missouri River" are written around the east side of the island. There is a "Sand Bar" immediately opposite where Watkins Ditch or Keg Cr. enters the river in Section 6 and right opposite the Duval place in Section 17 are a couple of sandbars with "Willows" shown on them. The river at the road into Babbitt's land between Sections 17 and 20 reaches the center section line of Section 20 and immediately above the road in Section 17 the river has cut a little bit further to the east. This map shows the retards along the Iowa bank on the east side of what is now called Nottleman's Island.

The opinion of the Iowa Supreme Court in the case of *Dashner v. Woods Brothers Construction Company*, 205 Iowa 64, 217 N. W. 464 (1928), begins as follows:

"The vagaries and meanders of the Missouri river contiguous to Iowa on its western boundary is a matter of common knowledge. The legislature of this state took notice of this fact, and in the enactment of the drainage law provided that, with reference to improvements along or adjacent to the Missouri river, the word 'levee' shall be construed 'to include, in addition to its ordinary and accepted meaning, embankments, revetments, retards, or any other approved system of construction which may be deemed necessary to adequately protect the banks of any river or stream within or adjacent to any county, from wash, cutting, or erosion.' Section 7423, Code 1924."

The opinion discusses the appointment of Seth Dean as commissioner and the necessity to keep the bank from cutting along the river and the fact that the river was cutting in three places along the bank, a distance of 8,000 feet in one place, 6,000 feet in another place and 1,500 feet in another. The Iowa Supreme Court opinion also indicated that, at the time the contractor began its work, the river was cutting in numerous places and for this reason the retards were not built in all places where the preliminary survey tentatively located them. The court said:

“It is necessary to keep in mind, in the reasonable construction of the contract in question, that the definite location of the retards was necessarily left to the future judgment and determination of the engineer by reason of the constantly changing conditions of the river bed.”

The case really determined that the board had power to bind the landowners by accepting the work, but it does constitute further documentation of the serious erosion and cutting of the river into the Iowa farms. The mylar overlay of the Seth Dean map (Ex. P-722) when placed under the traverse of Nottleman Island (Ex. P-1691) shows almost all of Nottleman Island was west of the left bank except a little bit in the southeast corner. Much of that large island on the Seth Dean 1922 map is the same as present day Nottleman Island.

When the Seth Dean map overlay (Ex. P-722) is placed upon the 1890 survey (Ex. P-718) and the Windenburg traverse (Ex. P-1691) is then placed upon these two, it can be seen that the north part of the large island on

the Seth Dean map of 1922 coincides in large part with what was shown as Tobacco Island on the 1890 map (Ex. P-718) and that the Windenberg traverse covers the southern 70% of the island shown on the Seth Dean survey of 1922. The chute around the west side of that island on the Seth Dean map corresponds to a topographic feature which is apparently a depression running along the right side of Tobacco Island on the 1890 map.

This series of Exhibits and the testimony shows that Tobacco Island, which was originally a little bit north of the Nottleman Island location, extended to the South and to the East until it had built up and covered about 70% of the Windenberg traverse area in 1922 and that there was a chute along the west side of the island. The east side was designated as "MISSOURI RIVER" on the 1922 Seth Dean map and the retards were built along the eastern or Iowa shore where the river was cutting. The physical evidence of the trees on the island and the testimony all indicate that this land did not wash away and the documentary evidence establishes that the island formed on the western or Nebraska side of the main or navigable channel of the Missouri River.

The United States Corps of Engineer map from the survey of May, 1923 (Ex. P-723 and P-724) shows several retards marked along the left bank in the Nottleman Island area, and shows a definite island there. This map also shows "Tobacco Island 1890" and just to the right of that the words "Chute 1890" appear in dashed letters. The left bank of 1890 as shown on the 1923 map runs through Nottleman Island. Just above the island on the

Iowa side are the words "Retard under construction" and there are four retards shown on the left bank on the east side of the island. A "Dry chute" is also shown on the island. This map apparently shows a channel of the Missouri River as having broken through the island which Seth Dean had shown on his 1922 map, leaving part of the island on what was shown as "Tobacco Island 1890" on the Nebraska mainland, and the remainder with water flowing around both sides. The bank lines from the 1890 survey are shown on the 1923 survey and when the 1923 overlay (Ex. P-724) is placed upon the 1890 overlay (Ex. P-718) the banks coincide closely.

The next map of the area was the 1926 Corps of Engineer Map, revision from airplane photographs of December 14, 1926. This map shows the "Channel line in miles, survey of 1890" as a dashed line with asterisks. The 1926 map also shows retards on the left bank in Rock Bluff Bend and the words "Rock Bluff Bend" run around the east side of Nottleman Island. The middle part of the island has the designation "Willows" and the 1890 channel line runs through the middle of that area. Mr. Brown located Tree No. 259 on the 1926 map (Ex. P-726) and that tree, which Mr. Weekly testified started to grow in 1900, is to the west of the 1890 channel line. When the 1926 overlay (Ex. P-726) is placed upon the 1890 Corps overlay (Ex. P-718) the 1890 "Channel line" runs right along the left or Iowa bank and to the east of the small island located immediately above mile number 627.9 and west of the name "McDonald" as shown on the 1890 map. The witness Huber for the State of Iowa misplaced his so-called "deepest thread" of the Missouri

River in 1890 by going around the right or Nebraska side of that small island (Ex. D-605-A) instead of up against the left bank on the Iowa side as was actually shown by the Corps of Engineers 1890 channel line.

When the 1926 Corps survey (Ex. P-726) is placed upon the 1923 Corps survey (Ex. P-724), the area designated as "Tobacco Island" on the 1926 map is a lot farther north and some east or is really above the designation of Tobacco Island which appears in dotted letters on the 1923 survey (Ex. P-724). With the 1890 overlay (Ex. P-718) placed on top of the 1926 overlay (Ex. P-726), the 1926 Tobacco Island is clearly north of what was called Tobacco Island on the 1890 map. Consequently, the area called Tobacco Island in 1926 was quite different from the Tobacco Island of 1890.

When the Windenburg traverse overlay of Nottleman Island (Ex. P-1691) is placed upon the 1926 Corps overlay (Ex. P-726), the tree area of the Corps survey is right in the middle of Nottleman Island. The island as shown on the 1926 map is principally within the traverse.

The 1928 Corps of Engineer map and overlay (Ex. P-727 and P-728) and the 1930 Corps survey (Ex. P-729 and P-730) also show willows and scattered timber on this same island area with the high part of the island appearing upon all of these maps.

Testimony of Witnesses As To Early Location of the Missouri River

The testimony of the witnesses confirms this easterly

movement of the Missouri River in the Nottleman Island area and that Nottleman Island built up on the Nebraska side behind the movement of the river.

Floyd D. Fulton, who was born on September 17, 1897, in Fremont County, Iowa, testified by deposition that his family moved to the Billy or William Leeke place when he was three or four years old. That farm was located right west of Egypt School and about a mile north of the Fremont County Line. It was directly north of the George Powles place. Queen Hill, or Rock Point, was northwest of them and across the river about a mile or a mile and a half and the south end of their place was beyond King Hill which was across the river and to the southwest of them. His father farmed and did commercial fishing. When they first moved there, the house was about a half mile from the Missouri River and when they moved away when he was eleven years old, it was thirty-three steps from their house to the river. The river was cutting in pieces "half as big as this building" (the building in which the deposition was taken) on the west side of their place. The river started cutting in the spring and they moved the house away when the corn was just a little bigger than roasting ears. All of the ground between their house and the river went in. There was a big island right straight across from their place, but there were no islands at that time on the eastern or Iowa side of the river. The main river was on the east side. On the west side of that big island was a narrow strip of water which they always called a chute.

Mr. Fulton testified the river cut in the farms a mile or two north of their place a year or two before it got to

cutting down on where the witness lived. The witness mentioned the names of several places which cut into the river including that of Catherine and George Fulton. He particularly remembered the Fulton place because they had a good orchard there and in the fall of the year his dad would go up there and buy apples from them.

He saw boats practically every year he was there as they used to have snag boats and show boats come up the river. He remembered one time when he was a boy that a show boat came up the river and pulled up right at the river bank at the road on the north side of their place, and they put the gangplank down and unloaded four head of horses and drove to Bartlett to get a load of coal. He said they would always run down to the river when they saw the steam boat coming. The witness remembered the Haffke place about a mile or so north of them and testified there was a road which came by the Egypt School House and went west towards the river and then turned north, but that road is not there any more. The river cut it in. The island which was out in the river from the Leeke place where the witness lived ran north for miles, and the main river was on the east side of the island. The witness and his dad picked mushrooms on that island when he was a kid. When the river cut within thirty-three steps of their house, it stopped cutting but in later years it cut it in.

Gay Eyler, born on December 29, 1882, and Silva Eyler, born in 1890, from Bartlett, Iowa, testified by deposition that in 1909 they moved up on the Haffke place near the Missouri River which is west of what is known

as the Dilley place. This location of the Haffke place was identified as being across the river from Queen Hill and they traveled to it down the same road leading west from the Carl Phelps or Dilley place which Babbitt takes into his land today. The Phelps or Dilley farm is the one on the east side of the road from Bartlett to Pacific Junction which has the beautiful paintings on the barn doors. A photograph was offered showing Mrs. Eyler standing on the levee right close to where the buildings were located on the Haffke place where the witnesses lived (Plaintiff's Exhibit Mrs. Eyler 1). When the Eylers moved to the Haffke place in March, 1909, the Missouri River was some distance west of the house. They had to leave in July of 1909 because it was too dangerous to live there any longer since the river was cutting so much. Mrs. Eyler was able to recall that the year was 1909 because their first baby was going on two years old and had a serious illness that year. In describing the cutting, Mrs. Eyler testified:

“Well, it seemed like the river was coming with such force against our bank that it just started cutting there. Now, that is all, and it got to the spot where we were really afraid to stay there any longer because we could hear the pieces going in during the night.” (Vol. V, p. 584)

She testified that this was not flood time but was just normal cutting and she saw trees go into the river and a very substantial corn crib float off in the river. Mr. Eyler also identified the Haffke place and testified they had to move off before they had plowed the corn the third time. This was in June or the first of July. He was then asked:

“Q. Why didn’t you plow it the third time?

A. Because the river got to cutting toward the house, and everything. It got so close to the house. One night there was a regular storm, a heavy rain, so I lit my lantern to go out there and see how close it was getting. Chunks of dirt were going in there ten or fifteen feet across. So I lit my lantern, and I got out there pretty close, and the wind blew the lantern out, so I kind of crawled over toward the bank and feeling all of the time with my hands, and it was getting too close. I think within three or four feet of it, when a big chunk went in, and I got out of there.

Q. Was there any noise when that went in?

A. Yes. It jarred the bed, and it jarred the house. We could hear big chunks going in. It would jar the house and it would jar the bed, you know. I thought it was getting too close for us.” (Vol. V, p. 594).

Mr. Eyler was asked when the river was doing the cutting, how he would describe it and answered:

“Well, it wasn’t too high. It was almost bank full. It was awful swift. The main channel was right against the bank, it seemed like.” (Vol. V, p. 596)

He also testified that the house and the ground where the house had been located was gone when he returned about a year later.

The Eylers identified where their buildings were when they lived on the Haffke place and Mr. Brown located that place as being east of the Nottleman Island traverse (Ex. P-2278). This point is located by the Eyler re-bar, in the north-central portion of Iowa Section 20,

slightly west of the letter "H" in the word "DITCH" on the 1946-47 tri-color map and Appendix A.

Bruce Connor of Glenwood, Iowa, was born in 1886, and testified by deposition that the first farm he ever farmed was when he was nineteen years old and he moved onto the Haffke place. He was born a half mile east and a half mile north of the Egypt School where he went through the eighth grade. The Egypt School was just a mile north of the Mills County Line and is identified on the maps as being just a little bit north and east of King Hill. He went to school with Patty Powles and worked for Floyd Fulton's father and Floyd Fulton had worked for Bruce Connor. The Haffke place was two miles north of Egypt School and three quarters mile west of the main road. He only lived there one year and the river was doing some cutting then. It was also cutting where George and Catherine Fulton lived. Later he moved to the Buckingham place which was on the main road to Bartlett two miles north of Egypt School. This was also identified as the Duval place. People named Dilley and Briley and Thede Powles also lived there at various times. He rented the farm which presently has the pictures painted on the garage from Mrs. Dilley. The witness identified the road which is the present road going into Nottleman Island from the east as the same road which was taken into the Haffke place. The witness in the presence of Mr. and Mrs. Elyer, pointed out where that road turned south and Mr. Brown located it on a map (Ex. P-2278). It is just east of the Nottleman Island traverse and directly north of the Haffke place. The witness lived at the Dilley place in 1913 and, in the eight

years he lived there, the Missouri River kept cutting in and cutting part of the Duval place on the north. While he lived there, he mentioned several other places which cut into the river including an eighty acres north of George Fulton, the McKinley place, the Waltenberry place, the Harris place, the Azbell place, and the Long place. These cut in about 1914 or 1915 and some before that. All of these farms were on the east side of the river in the Nottleman Island area. The witness specifically remembers the year 1913 because that was the year of the big cyclone. Exhibit Conner 1 is a picture of the Egypt School site showing the witness.

The witness also started to work for Woods Brothers Construction Company in 1921 and worked for them three years. They put in twenty-one retards and then he worked for Woods Brothers doing repair work for a couple of years. He knew Seth Dean, the surveyor from Glenwood, and the witness once worked for him. In 1921, he hauled trees for Woods Brothers by horse and mule to make retards. He testified they were making the retards on the east side of the Missouri River where it was cutting. The river was deep there, which was also true when he lived on the Haffke place and when he lived on the Dilley place. The Azbell place which cut into the river was half a mile west of Egypt School and three-quarters of a mile north. The Tugghenagen place was south of the Haffke place. They had a grave yard down there and it went into the river in 1906 or 1907 and he went up to Glenwood to report it. The Leeke place was a mile south of the Tugghenagen place.

Mr. Whitney Gilliland, age 65, a present member of the Civil Aeronautics Board and a former district judge in southwestern Iowa, testified by deposition concerning his personal knowledge that many years ago the main channel of the Missouri ran east of Nottleman's Island. He stated he saw it run there prior to 1920 and his recollection was this was the open main channel of the river. His earliest recollection was about 1917, and he said every one he ever knew of in that part of the country regarded Nottleman's Island as part of the State of Nebraska until the Act of the Legislature. He used to go fishing and camp out along the river, when he was young, about four or five miles north of King Hill but they would run along the bank of the river some miles in either direction.

John "Patte" Powles, who was 80 at the time of his deposition taken on November 14, 1967, was born in Mills County, Iowa, where he has lived all his life. His father's name was George Powles and, in 1892 when he was about 5 years old, the family moved to the first farm north of the Mills County Line just south of the Fulton-Leeke place. This farm joined the Missouri River and is the farm he grew up on. It is across from King Hill. In the early days the house was about a half mile from the river and was there up to about 1922 and then the river began to cut and it got to about a quarter of a mile from the river to his house. He testified that back around 1900 some people named Haffke and Tuggenhagen lived on farms to the north. The Haffke place cut into the river and the Tuggenhagen farm cut into the river about the same time as the Haffke place did. He knew Floyd

Fulton and worked for Floyd Fulton's father and saw some of that Fulton farm cut into the river. One of his brothers, Theodore "Swede" Powles, lived near the river from 1915 to 1920 about two miles north from the old Powles place and a little east. Just south of that farm is the road that goes west from the highway to the river which is the same road which Mr. Babbitt takes to go to his island. The farm just north of that road was the Theodore Powles place, and some of that farm on the west side might have cut into the river at one time. There were several houses over in there that the people owned besides his brother and the witness thought they moved the houses away. He testified there was a swift current along the Iowa bank cutting. It was deep enough to take chunks of land off. He also remembered Woods Brothers Construction Company doing work along the river commencing in 1921 both to the north and south of their place. They were cutting cottonwoods and putting them in the river and making dike levees to keep the river from cutting. There were islands in the river west from the Theodore Powles place and the river ran around on the east side of them.

On cross-examination the witness testified that the island west of Theodore's place was called Gochenour Island and that was the only island west of Theodore's that he recalls. He was not on this island until Babbitt rented the farm. George Troop also had some acres down there and Troop wanted to sell it to the witness so he went over and looked at it, but didn't buy it and Lee Sargent bought it for \$10,000 and the stock. The road where his brother Theodore lived which is now used

to go out to the island comes into the island from the east and must come in about in the middle of the island. Theodore lived two hundred feet west of that road from the black top that goes to Bartlett. In the old days there were houses and small farms of forty to fifty acres west of Theodore.

On redirect, the witness testified that when Woods Brothers was doing their work in 1921, Gochenour Island was west of the river. He remembered it being over there for a long, long time before 1921 back to when he was a small boy. That island was always on the west side of the river that he could remember up until the time when Woods Brothers did their work. The farm that he mentioned west of Theodore Powles' place cut into the river.

Genevieve and Luther Johnson of Glenwood, Iowa, testified that they lived near Egypt School in Mills County, Iowa, from 1926, when they were married, to 1945. Mrs. Johnson, age 62, pointed out the Lizzie Leeka place west of the Egypt school house and Twin Lakes. She showed where she lived on the "J. H. Schroeder" place on a print of the Seth Dean 1922 map (Ex. P-721) which, when they lived there, was owned by a James J. Hogan. A Mr. Tooley lived directly to the west of them and, when they first moved there, the Missouri River was about one-half mile west of them and then it started cutting and it cut in north of them. They thought it was going to come down through Twin Lakes and take them. It started cutting soon after they got there and big trees and houses fell into the river. An area adjacent to the river north of her house and a little bit west marked "T. C. Harris, 100% 20.7a" (Ex. P-721)

was cut into the river along in 1926 or 1927. Immediately to the east of that, an area which appeared on the map as "C. M. Fulton 100%" was cut into the river, and the corner of the Sheldon place immediately to the north and east of what appears to be the center of Section 29 and designated as "Sheldon 70%" was cut in. The Powles had lived immediately south of them. Some land south of their house cut into the river.

From the fall of 1936 until the fall of 1939, some of the workers stayed on a quarter boat and Mrs. Johnson cooked three meals a day for them at her house. The boat was docked in the river right straight west of the witness's place because that is where they went. They had a quarter boat and other boats right along in there where the deep water was and the witness indicated an area located at the center section line of Iowa Section 29, where the water was deepest because they had boats and sandbarges there. This was along the east bank of the Missouri River on the Iowa side of Nottleman's Island. She watched the river cut and saw great big trees fall right into the water. At that time the river up against the east bank was real deep and real swift. They drove up this road north of them as far as they could and walked over and could see those big old trees fall right down into the water and the water was very swift and very deep over against the east bank. Across the river there was an island north and west of them, but the river didn't cut that way, it all cut their way. It was not comfortable living that close to the river in those days because it was just too much of a scare. After Patton Tully completed the river work they didn't have

any more problems. Mr. Bake Miller, a superintendent of Patton Tully told the Johnsons that they were fixing to shoot the channel back towards King Hill and zig-zag it and it wouldn't cut that way and it did not.

Luther Johnson, age 69, and a resident of Glenwood, Iowa, testified that most of his life had been spent farming on the Missouri River bottom. He lived just west of the Egypt School in Mills County. He also testified as to the cutting and the trees going into the river and mentioned that some of the Ed Sheldon place cut into the river and all of the T. C. Harris place which was north of them went into the river. He circled the T. C. Harris place (Ex. P-721) and the "100%" notation where the Harris place was and where buildings went into the river. He testified this must have been between 1926 and 1930. The river also cut south of the witness's farm and cut some of the George Powles' place away. The witness testified that at one time, the river was both directly north and directly south of his place. His farm was originally 160 or 170 acres and all but about 90 acres cut into the river. This cutting generally took place through the summer and cut at normal stage the same as it would if it were high stage. His father, Benjamin Johnson, at one time owned the area north and a little bit west of his farm and the river cut it all in except two or three acres. The witness also mentioned Woods Brothers had done a lot of rip-rapping and taxes were so high his father just let them have it, because he couldn't raise enough on the two or three acres left to pay the taxes. The work by Woods Brothers was done before the witness moved down to that area. Patton

Tully, contractors, moved in there in 1936. In the summer the witness dragged piling with a tractor for Patton Tully. The effect of the Patton Tully work was to shoot the water back away from the farm ground back towards the river. Then the river stopped cutting and land went to filling in.

All of these witnesses were very familiar with the area, most of them having lived right there while the events were taking place, and their testimony was consistent with the documentary evidence.

A page from the Mills County platbook of 1891 of Lyons Township shows the "River Line as shown by Govern. Survey of 1851" and north of the center line of Section 30, this line appears to be west of where the river is shown in the Nottleman Island area. At the very bottom of the map opposite Rock Bluff, the line is easterly of the river bank (Ex. P-2291).

Another atlas of Mills County of 1910 shows the left bank of the river considerably to the east and Section 19 is now all gone including the C. M. Fulton 30 acres on the previous atlas (Ex. P-2619). On the 1891 map, the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of Iowa Section 18 is still shown as land, but on the 1910 map the river is clear over east into Section 17 and Section 18 has all washed away. At the bottom of Section 20, the C. M. Fulton 80 acres is cut in half and in 1910 appears as just 40 acres. The two C. M. Fulton 40 acre tracts which were directly east and west of each other show the west one having disappeared and the east forty remains. On the 1891 map, there is land in Iowa Section 30 directly west of Section

29 but on the 1910 map, about all of that land previously shown in Section 30 as approximately 220 acres has been cut into the river. The 1910 map also shows the original Government Survey of 1851 as a line to the west. When the overlay of the Windenburg traverse (Ex. P-1691) is placed upon the overlay of the 1910 atlas (Ex. P-737) almost all of Nottleman Island except some of the very eastern part is shown to be west of the left bank.

The 1913 atlas of Mills County (Ex. P-1764) shows almost the same river bank as the 1910 atlas, but the names of the landowners are changed. It is not contended that these atlases have the preciseness of surveys, but they are helpful in identifying some of the areas testified to by the witnesses. They also can be compared with the Seth Dean survey of January 23, 1895 (Ex. P-1668 and P-1668-A) to show the land cut into the river.

Albert Mason Watts, one of the present owners of a portion of Nottleman Island, age 68, was born in Lyons Township in Mills County about a quarter of a mile from the old Duval place. His father was James Nicholas Watts and he identified a deed from J. C. Buckingham and wife to James N. Watts filed August 4, 1894, in the office of the Mills County, Iowa, Recorder (Ex. P-1694). His parents were grantors in a warranty deed from James N. Watts and wife to Leonard Oviatt filed March 4, 1905 (Ex. P-1692). These two deeds describe the farm where the witness was born, which was on forty acres which now lie just to the east of present day Nottleman Island. When the witness was quite young, the family moved away from that place on account of the river

cutting in there and the witness's father was afraid it was going to cut the farm in. Subsequently, part of the west side was cut in.

The witness testified he had lived along the river in Lyons Township most of his life and spent nearly all of his time on the river when he was a boy. He used to live to hunt and fish and it was always up and down the Missouri River. He testified that, in the period from 1915 to 1920, the river came down from Plattsmouth and made a big wide curve to the east and on the west side of the river there was a big sandbar. They called it an island because when the river was high the water ran on all sides of it. When the river was down to normal or anything below normal at all, it was almost dry on the west side and the main river was on the east side. The island that was there in the earlier period is a part of Nottleman Island. Between 1915 and 1920 the biggest half of the river was east of that island. The witness testified it did a lot of cutting in there.

When Woods Brothers did their work, it was trying to cut on the east side, and when the government came down there in 1933 and was going to put in revetment for the piling, all the steamboats had to come on the east side of the island because the water on the west side was so shallow they couldn't get through. After the Corps got the stream transferred to the west side into that chute over on the west side, it cut over there and then the east side of the old river filled up.

The witness was born in 1901 and started hunting when he got his first shotgun when he was fourteen. He

would go out to the island by boat and he had a blind there. He testified that on the west side of Nottleman Island where the river is presently located, there was a chute in the period from 1915 to 1933. He also identified the west side of the T. H. Douglas farm in the northwest corner of Iowa Section 8, which cut in and the corner of the C. C. Randall place which appears as in the N $\frac{1}{2}$ of Iowa Section 17 and the S $\frac{1}{2}$ of Section 8 and some of the land listed as Hunters, Peters and Bock which cut in (Ex. P-1694). He testified that the C. M. Fulton 40 was cut in quite a bit where George Fulton lived. He believed that cutting around the Hunters, Peters, Bock, Southwick area occurred in 1916 or 1917 or at least somewhere between 1916 and 1920. Mr. Watts also testified that Carl Phelps had painted the hen house and buildings on his farm and this was also known as the Detsauer place and was also called the Dilley or Diller place.

When Woods Brothers Construction Company started their work in 1921 and 1922, the witness worked with them two or three months. He drove mules and would drag logs right up to the river. In some places the river was cutting in there. In 1933 or 1934 Forney Brothers contractors who worked for the government, drove piling and plugged the channel that went between the island and the Iowa bank with revetments and shoved the water down through the west chute toward King Hill and Queen Hill and made a new channel there for the main river. The witness testified that part of the present island is the same island that was there back in 1915 and it did not wash away when they put the chan-

nel around it and shot the water over on the west side.

The witness saw steamboats come up the river quite often and when they first started doing the river work there, the steamboats came up the river from the south and had to come up on the east side of the island because there wasn't enough water on the west side for them to get through, and after the water was put on the west side enough to cut the channel out, they came up the west side. The witness testified that between 1915 and 1920 he went across the river over to the island many times and he went around to the west side, and the amount of water on the west side varied depending on what time of the year you were over there. If you were there when the river was down and anything less than normal, you could get over there quite easily because the water was about gone or just chute water or shallow water which you could wade easily. The witness was down there hunting one day and saw a man drive onto the island with a horse and buggy from the west bank some time in the 1920's. However, if the water was a little bit deep, you couldn't get there. He said before the Corps of Engineers did their work, when the river was high, the water on the west side of Nottleman's Island would spread out because it was so flat over there. It would spread out until it would be about as wide as on the east side, but it was shallow. The main channel was on the east side which was the deepest.

The witness located a stake along the road from the Detsauer place into Nottleman Island indicating the farthest east the river had cut, and Mr. Willis Brown identified that stake on the map. It was located a mile

and a half or two miles east of the present bank of the Missouri River (Ex. P-2278). The witness stated they put the main river clear on the west side of the island and took it clear out of the country from where it used to be.

Witnesses called by the plaintiff who lived on the Nebraska side of the river in the Nottleman Island area confirmed the testimony of the witnesses living on the Iowa side as to the location of the river with reference to Nottleman Island. James J. Lipert, age 74, presently residing in Council Bluffs, Iowa, by deposition taken November 15, 1967, testified that he owned land in Rock Bluff Precinct in Nebraska and for fifty years lived in Plattsmouth Precinct which is the precinct just north of Rock Bluff Precinct. He moved there in 1904 and left in 1953. Part of his farm was in Section 5 in Rock Bluff Precinct and either 32 or 36 in Plattsmouth Precinct and this farm was not over two miles north of Queen Hill. His father, Frank, farmed the land until he died and then the witness farmed the place. The 80 acres which he now owns was east of his father's place one-half mile and practically to the foot hills. This was where he could look at the Missouri River. It was approximately 40 rods north of the precinct line between Rock Bluff and Plattsmouth Precincts and there was a high hill without any timber or anything to obstruct the view either to the southeast or east. (Mr. Willis Brown identified that precinct line as being along the line between Nebraska Section 4-11-14 just north of Queen Hill and Section 33-12-14 (Ex. P-2626).) The hills butted out so that you couldn't see very well to the north, but

you could look northeast and could see Keg Creek in Iowa which was slightly to the northeast. You could see as far south as King Hill and you could see Queen Hill. He used to go there quite often as a boy.

Between 1910 and 1920, the witness testified the main channel of the Missouri River was straight east, and he can remember because the chutes west of the river were nothing but chutes. At flood time there would be a lot of water in them and then when the river was down in July and August, the chutes would be dry. There were about two or three chutes that would run down there. In the early 20's you could see the land cut away on the east side. He testified that he would see a big house and that would go in and maybe you would go back there in a couple of weeks and the farm would be gone, buildings and all. He saw Woods Brothers Construction Company do some work on the east bank of the river and after that he testified he didn't see much cutting any more. Most of the cutting took place from a mile south of the mouth of Keg Creek and from there south for a mile or two stretch that he could see.

One time between 1925 and 1930, the witness went down to Queen Hill with his wife and children when they were small, and Taylor Cuthrell and his wife and their children were with them. He testified if you looked east standing at the foot of Queen Hill at that time, there was nothing but a sandbar with a bunch of willows on it. They waded across a little chute about knee deep which was right against the west bank and they waded out "Maybe a couple of hundred feet." Mr. Cuthrell was with the witness when they identified the place where they waded

out and the witness placed a stake which Mr. Brown later located by survey (Ex. P-2278). Exhibit Lipert 1 is a picture showing the witness and Mr. Cuthrell. The photograph is facing east and right behind them is the main channel of the Missouri River and across from that is present day Nettleman Island. This was a quarter of a mile or a half a mile north of Queen Hill. At the time they waded out, they crossed the slough and on the other side were willows and sandbars. They didn't go out into the willows very far. At about the same time as this, the witness was on the lookout point which he had described, and at that time, the main part of the river was right straight east against the Iowa bank a distance of about two miles or maybe a little further. The island back in those days did not have a name unless you called it Gochenour Island. The witness testified it could have been the south end of Gochenour Island. The place where the picture was taken was on a fence line between the property of Warga and Fitchorn.

Mr. Harrison L. "Cap" Gayer, born in 1891 and presently residing in Papillion, Nebraska, testified by deposition taken November 14, 1967. He lived on the Rock Bluff road about a mile and a quarter straight west from Queen Hill. Queen Hill quarry is right north and east of Rock Bluff. He moved to that farm in 1919 and in that year drove down to Queen Hill. He testified that, as you stood at Queen Hill and looked east in those days, you saw willows as far as you could see from the bank. There was no quarry there then. He did not see any running water and he knew where the Missouri River was east of Queen Hill, but never did go over to

the river. He said you could stand on Queen Hill and see the river north and east, but you could not see it looking straight east. Looking north and east you could see the river at a distance of about a half a mile or less than a mile and there it went in an easterly direction. On re-direct examination, the witness testified that a little later, he walked out into the willows in 1922 or 1923 and went clear to the water's edge which could have been a quarter of a mile or such from Queen Hill, and there was a chute there which he knew was not the main channel because there was no current. The chute could have been a hundred yards wide. He fished in that chute with Walt Sands and it was his first and last experience in trammel net fishing which is the reason he remembered it. He testified he rowed a boat in that chute and there was no current.

Albert Warga, age 74, also testified by deposition taken on November 14, 1967. He was the son of John Varga and at the time of the deposition lived west of Queen Hill in the northeast quarter of Nebraska Section 8-11-14, where he has lived since 1933. Before that he lived on the home place which was his father's place just across the road to the northeast and toward the river and about a half mile north of Queen Hill. He has been a farmer all his life. In 1913 in the vicinity of Queen Hill, the Missouri River was mostly over by Iowa and was about a mile from Queen Hill. He is able to recall this because 1913 was the year of the tornado and he was out duck hunting on that Easter Sunday in 1913. At that time, between Queen Hill and the river, there was a lot of land built in which he called accretion land. He tes-

tified it was willows, grass and stuff like that and there was no water between Queen Hill and the Missouri River and it was all dry through there.

Captain Otto Neuhauser, presently living in Kansas City, Missouri, testified he was born in 1892 and had been associated with the Missouri River ever since 1910, when he started as a deck hand and fireman on tow boats from Kansas City down to the mouth of the river. He received his pilot's license in 1913 and came up the Missouri River with a river boat in 1915. He testified that in those days you had to take a written examination for a license and give them miles on both sides of the river, the bridges and curves and rock points and cities bordering the river. Captain Neuhauser was a pilot on the Missouri River from 1913 until he retired from the government in 1957 from the Omaha District, but he has maintained his pilot's license and was planning to go back on the river in charge of an excursion boat at Kansas City in June, 1969.

In the early days, there were no navigation charts or maps so they had to pick their own water. It took a great deal of experience and a lot of people were on the river all their life and they would never be able to do it. You read the water. They had no navigation charts and, when asked when they first got their navigation charts on the Missouri River, Captain Neuhauser said he thought they started buoying up here in 1947 or 1948. (The Court Reporter's transcript states *1937 or 1938* (Vol. V, p. 670), but Nebraska counsel's notes show he said 1947 or 1948 and Mr. Murray at Vol. XIII,

p. 1840, said in a discussion with the court concerning navigation charts: "I was told by, I think, Capt. Neuhauser about the first chart he recalls was 1946." The Court then stated: "Somebody on the stand said that. We don't have this business of the boat track, the thalweg.")

In 1913, Captain Neuhauser just had his license up to Kansas City and then in 1915 he got on a boat by the name of *Myrtle H. E.* and they brought two barges up the river to Omaha. He made this trip so that he could get an extension on his license. The boat was a steamboat about 90 feet long and 25 feet wide which burned coal and wood and had a paddle wheel. Captain Neuhauser said he was familiar with the Rock Bluff area in 1915. When they got just north of King Hill there was an island located east of Rock Bluff and they followed the right bank at the lower end where there was a little water, and they couldn't get through so they backed down and went around the left or Iowa side (Ex. P-2624). This was in the spring of the year, around May. The water was at a low stage and they had not yet had the June rise. He testified there were three little chutes on the Nebraska side and they tried all of them and there wasn't enough water for them so they had to back down the river and go up the east side. The witness examined the 1922 Seth Dean map and stated that the area looked about the same as it did in 1915. He drew a line in red pen showing where they came up from the south and went as they proceeded north past Rock Bluff and marked that line with a capital A at the bottom and a capital B at the top. This line goes around the east or left bank

side of Nottleman Island. The witness also used a black pen and marked how far up they got along the right bank before they had to turn back and marked the north end of the line with a C which is just below "Rock Point Bluff" on the map (Queen Hill). The south end of the line was marked with a D. This is on the Nebraska or right bank side of Nottleman Island and the witness testified that water in that vicinity between the C and D is where the bars and three little chutes were (Ex. P-2624). He testified that the red line marked on Ex. P-2624 represents the best water and the navigable channel at the time they first came up the river in 1915. In 1915 when they came up the river and started up that chute on the right bank, the water was quite wide and scattered all over in there and was very shallow. The witness testified that, back around 1915, there was no commercial traffic. There were only snag boats and tow boats towing for contractors and bringing fleets up. In the years 1915, 1916, and 1917 and thereabouts, about four or five boats made the trip up the river per year outside of the snag boats.

Captain Neuhauser also worked for Woods Brothers Construction Company from Plattsmouth downstream and in 1921 Woods Brothers Construction Company wintered right below the Plattsmouth Bridge. He was a master of power and also boat foreman and was on a boat by the name of *Castalia* when they started the retards. After the winter was over they started putting retards in with the first one located at the mouth of Keg Creek (Ex. P-2624). They worked on a couple more retards below there and then they pulled him off that job and took

him to Missouri Valley, Iowa, and a boat named *Lindsay* came in and finished the rest of them. He described how the retards were driven and that they wanted them sunk 85 feet at least. He devised a kind of machine to drive these retards. Captain Neuhauser testified that the main channel of the Missouri River was on the left bank in the Nottleman Island area in 1921. It was cutting in 1921 and that was the reason they wanted to put the retards in, to stop the cutting. Before he left, he testified that the retards were working.

In 1931 Captain Neuhauser also had a boat by the name of *Arthur S.* owned by Wigham Bridge and Pipe Company, which was used at Plattsmouth by a sand company, and he came up and got the boat and tow and left Plattsmouth on January 2 and landed at St. Joseph on the 13th of February, 1931. They came past Rock Bluff and he came down the same way he had gone up the river in 1915. There was still an island right out from Rock Bluff and the main or navigable channel in 1931 was on the left bank of the Missouri River. The last time he went through the left bank side around Nottleman Island was in 1935 on the government boats. The contractors were working there then. In 1939 they pulled the first retard they had placed at Keg Creek with a snag boat, the steamboat *Daniel Boone*. They pulled these retards because the other river work had caused these old retards to be ripped up by the current and they were afraid they would ruin the boats' wheels. After the government Corps of Engineers completed their work, Captain Neuhauser testified the main channel of the river was thrown over to the right bank or Queen

Hill Quarry on the Rock Bluff side. Captain Neuhauser stated that it was the government work which placed the channel over there. He also testified the government at first had trouble at the top of Nottleman's Island holding the water and holding the dikes. After they got Queen Hill Quarry open and could get all the rock they wanted, they filled it to the top of the piling with rock on those dikes and that stopped the water.

Captain Neuhauser also testified about the difficulty of reading water and he stated he did not think you could tell where the main channel in the river was by looking at an aerial photograph or picture. He said he thought it would be better judging it out of a pilot house and it was hard enough doing that. When asked if the wider water was where the main channel was, Captain Neuhauser testified that the narrow places were always the best water and were usually the deepest and swiftest. When the river widens out it starts losing its flow and starts forming sand bars.

He also testified about government snag boats in 1915. The *Mandan* went from Sioux City to Fort Peck, Montana, the *McPherson* from Kansas City to Sioux City, and the *Missouri* snag boat went from Kansas City to the mouth. In 1915 he testified there wasn't commercial navigation "up here" but at Kansas City there was and the Missouri River Navigation Company had barge line freight into Kansas City from St. Louis. There were no barge lines going from Omaha down or up from St. Louis to Omaha. In answer to a question by the Court, Captain Neuhauser said he knew the channel was shifted to the right bank of the river on the west side of the

island when he pulled the retards in 1939 and that was the first time he knew that former channel was shut clear off. Once they shut the former channel off, he then called it a chute.

The U. S. Army Corps of Engineers Work In The Nottleman Island Area

The testimony of other witnesses familiar with the Missouri River substantiates the fact that, immediately prior to the time the Corps of Engineers commenced their construction work, the navigable channel of the Missouri River went around the left bank or Iowa side of Nottleman Island. Mr. Joe A. Tesnohldek, "Pep Tess", age 53, testified that he had been a hunter and fisherman since he was about ten years old and in the year 1933 he hunted and spent all of October, November and part of December in the area around King Hill, Nebraska. The southern part of present day Nottleman Island extends downstream almost to King Hill. Mr. Tesnohldek was 18 in 1933 and hunted on the west side of Goose Island which is immediately below King Hill. He kept a hunting camp for his father and they had two boats, a 14 foot river boat and a 16 foot river boat powered by a 9½ horsepower Johnson motor. They rowed most of the time in those days.

The witness identified on the 1947 tri-color map (Ex. P-2625) his hunting camp along the Nebraska side below King Hill. There was enough water there so the stern wheelers used to come up past his camp and there was a limestone ridge with one spot deep enough for the boats to get through. On two occasions he instructed

boats how to get up the river. He testified that they could not go on the Nebraska or west side of Nottleman's Island and that it was "like the Platte River" on the west side and you were lucky to find a channel to row through. He had rowed a boat up in there looking for ducks and he said the water was wide and shallow. The second boat was a paddle wheeler and he in fact saw it go north on the east side of Nottleman's Island.

Alvin B. Gregory, age 57, residing in Sidney, Iowa, testified that he is construction supervisor for the Corps of Engineers in the Nebraska City area resident office. He had been an employee of the Corps of Engineers for 32 years and went to work for the Corps in the fall of 1934. From 1929 to 1934 he was employed by A. W. Forney Construction Company which did river work and he worked on a boat on the river from 1929 to 1933. In September of 1933, when the government first started to work on the river, Forney Construction Company had the first contract at Plattsmouth that ran south of Plattsmouth. Forney Construction Company was headquartered in Kansas City so it was necessary to move their equipment up the river to Plattsmouth to start work and this was done in September of 1933. The work actually began about the middle of September and the witness was steersman on the boat that brought the equipment up. In September, 1933, he was a boat operator, but when they brought the fleet up the river he was steersman. This was a steamboat about 110 feet long and 25 or 26 feet wide with a draft of 3 feet. It came up the river with a tow of eight pieces which were barges, pile drivers, and a mat boat. In referring to the 1947 tri-color

map (Ex. P-1039), Mr. Gregory remembered coming up the river in that vicinity in the fall of 1933 and he remembered the town of Rock Bluff where there was just one store which was about a half mile from the river. In that location he testified there was an island in 1933 and there was water on both sides of the island. As they approached Nottleman's Island from the south going north, they tried to come up the west side or along the right bank of the river. They got almost up to where they were even with the Rock Bluff store and couldn't get through and had to back out and go up on the other side because there wasn't enough water on the west side. It was wide on the west side, but not deep enough for the boat and tow. He remembered that when they couldn't go any farther on the west side, he walked out to the store at Rock Bluff and called the office in Kansas City to tell them they were going up the other side, and that is how he remembers that they were just about straight out from where the store was at Rock Bluff.

In the fall of 1933, they started the dikes right below Plattsmouth Bridge at the head of Tobacco Island which was above Nottleman Island and they also put in revetment on the right bank just below Tobacco Island and across from the north end of Nottleman Island. The next work they did was in the spring of 1934 when they went to work right below the mouth of Watkin's Ditch on the revetment and those dikes at the north end of Nottleman's Island. They drove the dikes out pretty close to the ends and the river would go around them and back down the east side. The river would go through the dikes and tear them out and they would have to re-

place them. The river was going back down around the left side of Nottleman's Island. They continued to have that difficulty for two or three years, and "Then they went in and put a rock dike about half way down around the island, put a high rock dike across that chute down there so it would keep the water from sucking down in through the dikes and tearing out the dikes." Eventually, the stream was diverted to the west side. He testified that before the channel on the east side of Nottleman's Island was finally closed, the boats used the left bank side. The boats still continued to go up the left bank side until they couldn't get through any more because of the structures. Those dikes prevented them from getting through.

The witness testified the object of the work in the channel was to make that bend come around so they could lay the water in the bend so it wouldn't spread out and to keep it in the bend. It was the Engineer's intention at the start to shut off the channel on the east side of the island when they started the river work. The contract was actually let for that work to close off the head end of that island when they came up and went to work, and this was in the contract with Forney's. When the water force was changed from the east side of Nottleman's Island to the west side, the island stayed there all that time. The island had been there as long as the witness had been around. The witness received his boat pilot license in 1931 or 1932. He was a boat pilot when he went to work for the Corps and up until about five years ago. He also knew of dredging having been done in the

channel west of the island but after they forced the river channel down in there.

Jack Chadwick, age 57, is resident engineer for the Corps of Engineers at Nebraska City and had been with the Corps 27 years. He has been continuously at work on the Missouri River since 1930, excluding three years military service. In 1933, he went to Plattsmouth, Nebraska, to work for Forney Construction Company on floating pile drivers as a winchman and deck hand. In the late spring of 1934 he started work on river structure projects in the vicinity of Nottleman's Island. In 1934, he lived about three-quarters of a mile below the mouth of Keg Creek (Watkin's Ditch) in a farm home which he located on the tri-color map (Ex. P-1039) about a quarter of a mile from structure 630.2. Structure 630.2, which is at the very north end of Nottleman's Island, was started in the spring of 1934. Working up and down the river in that vicinity, he was familiar with the course the boats used to go around Tobacco Island and around Nottleman's Island. He testified that in 1934, the boats went down the left bank or east bank on the east side of Nottleman's Island. On the west side of Nottleman's Island in 1934 it was flat, shallow, and spread out. In 1934, Nottleman's Island had some pretty high ground and was pretty well tree covered. He guessed the trees were a foot or bigger in diameter. In the spring of 1935 the river came down on the west side of Tobacco Island and cut right through again and went on down the old channel because that was the deeper water and it hadn't held the water out of there yet. The dikes were washed out and there was 25 to

30 feet of water going down through there. He was on the pile driver that drove the dike back and filled the gaps. He didn't know the exact year the channel was successfully transferred from the east side to the west side of Nottleman's Island, but guessed it was about 1936 or 1937. He wasn't there when they put on the last end of the trail dike 629.9-A. Nottleman's Island stayed there all the time during the river work and did not disappear. There was considerable difficulty in getting the water to go from the east side to the west side of Nottleman's Island. The witness knew of a rock dam on the west side of Tobacco Island and of a rock dam below King Hill, but he didn't work on the construction on either of those. He also knew that, later on, there was a rock dam half way down the east side of Nottleman's Island, but he didn't know when they did it, and subsequently they have filled it clear full of stones.

On cross-examination, Mr. Murray showed Mr. Chadwick a reconnaissance map, with the right-hand channel sounded, dated November 2, 1934. However, the witness testified that the structures were already in at the upper end of Nottleman's Island as shown on that map. Although he was not on the reconnaissances at that time, he testified that they either had a pole or cast a lead line and they just kind of sketched the soundings as they drove along in the boat. He also testified that one of the purposes of the reconnaissance maps is to find out how deep the water was where the Corps wants it to be. "They wanted to check and see if they are getting any results."

The Corps of Engineer work in the Nottleman Island area was also described by Mr. Ray O. Herold, age 77, of Plattsmouth, Nebraska. He started to work for the Corps of Engineers in July, 1938, and worked practically every year for some time in the Nottleman Island area. In 1938, he worked on a rock barge maintaining the levees and places where they tried to hold the dike-line from breaking through. He also worked on Tobacco Island above Nottleman's Island and, at the head of Tobacco Island where the river splits, in the area of dike 632.6, the water broke through up there.

In 1938, he worked in the area of dike 630.0 which is at the north end of Nottleman's Island and they had trouble holding those dikes. They had to dump rock on the east side and he testified that, at that time, there was more water running through the east side than the west side of Nottleman Island. You couldn't get your barge down in the east side because it had all been shut off with the pilings, but when the dikes were broken through, the channel went back through the Iowa side. They also had trouble after 1938 keeping the dikes in there at the top part of Nottleman Island. Three of those dikes at the top end of Nottleman Island gave them trouble all the time, and they had trouble down below at the top end of Goose Island.

Mr. George L. McGraw, of Plattsmouth, age 57, is employed by the Corps of Engineers in the Omaha maintenance base and started working for the Corps in 1929. He worked with Captain Neuhauser in the Nottleman Island area in 1936, 1938 or 1939, one of those three years.

They pulled retards just below the entrance of Keg Creek or Watkin's Ditch. The witness also testified how they drove clumps of dikes with some of them 15 feet on center, some 18 and some 20, depending upon the depth of the water. These were to hold back the water and cause the sediment to form below and build up dirt below the dike. They also laid mattresses of wood or willow and sunk them with rock and drove piling through them. When they pulled the piling with Captain Neuhauser, there was fast water running around the east side of Nottleman's Island and it seemed to be about equal going on each side at that time. The piling which they pulled was not put in by the Corps but he testified they were put in back in the 20's.

The Corps of Engineer Project & Index Maps from the Omaha, Nebraska District of the United States Engineer Office from 1934 through 1939, show the progression of the dike construction. These maps are each dated September 30 and the 1934 maps (Ex. P-410) show parts of dike 630.2, 630.0, and 629.9 at the north end of Nottleman's Island as completed. Trail dike 629.9-A is shown as a dashed line for the most part which would indicate it was only partially completed. This map shows the high part of Nottleman's Island as a substantial island across from Rock Bluff. The 1935 Project and Index Maps (Ex. P-411) show the top dikes in and 629.9-A as completed. However, that map together with the ones for 1936 (Ex. P-1699) and 1937 (Ex. P-412) still show a considerable amount of water going around the east side of Nottleman's Island, although the structures are in and the river is apparently in the de-

signed channel. The 1937 map (Ex. P-412) calls the island "NODDLEMAN ISLAND" and it is so identified on the 1938 (Ex. P-413), 1939 (Ex. P-414), 1940 (Ex. P-415) and 1941 (Ex. P-416) Project and Index Maps.

Study of Trees On Nottleman's Island

The study of certain trees presently on Nottleman Island also supports the premise that the island built up on the Nebraska side of the main channel of the Missouri River, as contended by the Plaintiff, and thereafter did not wash away when the main channel was transferred to the west. Mr. Harry Weekly, age 69, of Lincoln, Nebraska, testified as Plaintiff's expert on the study of tree rings on tree samples taken from both Nottleman's Island and the Schemmel Island area. Mr. Weekly holds a baccalaureate degree in Agronomy received in 1922 and a Master's Degree in Soil Physics granted in 1925, both from the University of Nebraska. He was formerly employed by the U. S. Department of Agriculture, Agricultural Research Administration, as a soil scientist. He worked 23 years on the Experiment Station at North Platte, Nebraska, and 11 years on the Belle Fourche or Newell Field Station in South Dakota and has been at the Lincoln Scientific College of Agriculture since January of 1957 as an Associate Professor. In North Platte, he had charge of the climatic records.

He became interested in the study of tree rings and aging of trees in about 1927, 1928 or 1929. He was deeply interested in climatic conditions and read some articles published by Dr. A. E. Douglas of Arizona in which Douglas discussed the tree as a recorder of climatic con-

ditions, and Weekly became interested in the study of tree rings as recorders of climatic conditions. Mr. Weekly is a dendrochronologist, which is a word Dr. Douglas coined from the Greek word *dendros* meaning trees and *chronos* meaning time. The witness read everything he could on the subject and wrote to the National Library and got everything they had and wrote to other people who had published on the matter such as Ellsworth Huntington of Yale; very large correspondence with Dr. A. E. Douglas, William Schulman, and a number of other people from Arizona. These men were considered experts in the field and Douglas can be considered to be the father of the science, starting his work in 1904.

The witness had been constantly concerned with the study of tree rings since approximately 1929 and in those first days around 1930 there was a Tree Ring Association which published a bulletin that came out once a month which published all of Douglas' work, and the witness published in it a time or two and published seven or eight additional papers. He had been constantly concerned with the study of tree rings since approximately 1929 and had worked with a number of other institutions, particularly in the field of archeology and climatology. Mr. Weekly worked for the Smithsonian Institution "off and on" starting in 1945 and he still works for them once in a while. The nature of this work has been dating of archeological sites in the upper Missouri and through the Dakotas where they have been salvaging archeological material ahead of the inundation from the upstream dams. He testified that the study of tree rings is more than simply just counting them because by charting trees

and different ages and overlapping them, you can build a chronology back as far as you can get material that overlaps grown under more or less similar conditions. The witness has a dated chronology for western Nebraska that goes back to the year 1210. The archeologists save all the charcoal wood they can find in their excavations and then they chart it, match up where possible the charts, and they can tell, for instance, in an earth-lodge house, from the pieces that come out of it, when it was built and when the trees were cut and when it was put together. They can compare rings in a wooden house with trees that were standing and compare the dates.

The witness has worked for the Nebraska Historical Society from about 1957, 1958 and 1959, dating archeological specimens from archeological sites. He has also worked for the Department of Anthropology of the University, dated a lot of material for a doctoral thesis, and the Army Engineers made use of a lot of the data which he had accumulated and they worked it through a computer and made a climatic study of it. They were interested in wet and dry years and the wet year usually makes a wide ring and the poor years produce narrow rings. In western Nebraska the witness counted over 3,000 specimens and matched them on one project, and then the Smithsonian brought him material from Wyoming and North Dakota and South Dakota and he never kept track of the number of pieces, but from one site they brought him over 1100 pieces of wood and fragments of charcoal, so he testified he had studied a "pretty extensive bunch of stuff".

The witness had eight articles published which dealt with the counting of tree rings in the Journal of Forestry, Tree Ring Bulletin, The Journal of Soil and Water Conservation, and the 1962 Annual Report of the American Association of Agricultural Engineers, and then he had articles published in quite a few newspapers but he wasn't sure of the number. When he first became interested in the study of dendrochronology, he was the first one in this area, as far as he was able to find out, involved in that kind of study. He said it is very tedious, time consuming work, and a little hard on the eyes and many people have given up the study as a bad job. He testified how he likes to have the full cross section of the tree because the tree doesn't grow exactly at the same rate all the way around. The tree may be eccentric one way or another or something may have happened such as lightning striking it and injuring it so that no growth takes place for a time. Usually if he has a full section, he likes to count a number of radii such as three or four. He discussed how a tree growing under a stressful or dry condition may start out a ring and make a false ring and then the moisture might increase and you might get a couple of rings in a tree in that type of condition and that is particularly true of the soft wood evergreens. As a rule, it is not too difficult to identify these false rings. Lightning or other climatic conditions may affect the rings but "if you know something concerning the growth of the tree and its cell structure and things, you can usually tell with a degree of certainty what has taken place."

On May 13, 1965, the witness took tree samples and

plugs from trees on Nottleman's Island. Tree No. 259 was a plug taken from a tree which reached the center and gave a complete series of rings for that place on the tree. The witness took this plug home with him and put in about ten hours studying the tree rings and he counted 65 rings. It was his opinion that the tree started to grow in the year 1900. Mr. Willis Brown, who was present with the witness when the tree samples were taken, located tree number 259 on the overlay of the 1926 Corps map (Ex. P-726) and tree No. 259 can be seen to be to the west or Nebraska side of the 1890 Channel line. When it is considered that Seth Dean found no islands in the Missouri River which were considered a part of Mills County in his survey of 1895 and the river from the testimony and maps continued to cut to the east, this tree commenced to grow in Nebraska and the land upon which it was growing never thereafter washed away. A photograph of tree No. 259 is in evidence (Ex. P-431).

The witness also testified that tree No. 1234 commenced to grow about 1919. Ex. P-430 was a picture of tree No. 1234 and the witness testified they cut two sides off it to get rid of some of the excess weight. The witness testified that tree No. 1106 commenced to grow about 1913 with the possibility of a year or two discrepancy. This was a plug taken from a cottonwood about three feet off the ground and Ex. P-429 is a picture of that tree with the plug removed.

On cross-examination, the witness testified that the tree ring laboratory at the University of Arizona is the only department which he knew of where this type of

work of dendrochronology is taught. He also testified that considerable lumbering had gone on at Nottleman Island and the stumps are still there in lots of places. There were very few of those stumps under a foot in diameter and some were perhaps two feet or there might be some larger, but he didn't look for them particularly. He looked at some of them and even sawed a section off one or two on the Schemmel land, but the rings were in such condition it would be hard to be at all certain about them, but they were at least 30 to 35 years old. He was certain that some of them were older, "... but I wouldn't stick my neck out and guess on the number of actual rings because a stump, the tree is dead and it has been there and it has rotted and they are so full of cavities." He said you couldn't scientifically tell its age with any degree of certainty. In response to another question from the Court, he indicated experience may let him make a pretty good estimate of the age of the stumps but it would have to be based on some rings you can't count because you are not sure what they are. He tried charting them but with no particular luck. He got indications "... but I didn't get any accurate measurements. I wouldn't attempt to state."

Aerial Photographs of Nottleman Island

The earliest aerial photographs available show Nottleman Island as having existed from at least 1926. The 1926 Corps of Engineer aerial photographs show considerable vegetation on the high center part of the island with a great deal of bar land all around that high portion (Ex. P-433 through P-438). The 1928 Corps of Engineer Maps refer to aerial photographs and there was reference

at the trial by counsel for Iowa to the fact that they had been unable to find such photographs and counsel for Nebraska agreed that they could not be found.

The 1930 Corps of Engineer aerial photographs again show the high portion of the island and they show clearing on that high portion (Ex. P-439 and P-441). Exhibit P-440 is an enlargement of a portion of the Corps aerial photograph dated September 17, 1930 and the witness, Willis Brown, testified there were three areas on that photograph which had been cleared near the center of the island. This clearing did not appear on the 1926 aerial photographs so the clearing took place sometime between 1926 and 1930. The 1930 photographs also show the island referred to as Tobacco Island to the north of Nottleman Island, and there is quite a bit of clearing and vegetation on Tobacco Island with channels of the Missouri River on both sides (Ex. P-2621).

The 1936 aerial photographs taken by the Corps of Engineers (Ex. P-1736 through P-1740), the 1937 Corps photographs (Ex. P-1731 through P-1735) and the 1938 Agricultural aerial photographs obtained from The National Archives (Ex. P-444, P-445 and P-446) all show the island as having remained in existence during the Corps of Engineer work and they show some sand bars in the designed channel on the west side.

Mr. Brown also identified two sets of buildings on the 1938 aerial photographs (Ex. P-446) and marked these buildings on the island area. One set appears to the north of the division line fence and the other set appears south of the division line of the island. Mr. Brown testified that

the Corps revetment follows along the bank, the dikes push out against the river, and the trail dikes extend down along the river, and he marked the dike lines in red on the 1938 aerial photographs (Ex. P-444, P-445 and P-446). In spite of the structures on the north end of Nottleman Island, there is still considerable water flowing around the east side of the island in 1938 and there are still some bars in the river on the west side (Ex. P-448).

In the 1939 Corps aerial photograph (Ex. P-1729), there still is water around the east side but it has become heavily choked with sand bars. However, there still appear to be sandbars on the west side. The cleared areas and the line fence are still visible.

On the aerial photograph from The National Archives dated 8/13/41 (Ex. P-448), Mr. Brown circled tree number 1106 which is almost directly east of Queen Hill in an area of trees and is south of the dividing line fence. Mr. Weekly testified that tree number 1106 commenced to grow in about the year 1913. Mr. Brown also circled tree number 259 which is to the north of the dividing line fence on Nottleman Island, and Mr. Weekly testified it commenced to grow in the year 1900. A great deal of the high bar land on Nottleman Island is shown as having been cleared at this time. There still is water going around both sides of the island but the dikes are in at the north end of Nottleman Island on the east side, and the main channel is clearly around the right bank side in 1941. This is also visible on Exhibit P-447 which is another Agricultural aerial photograph dated 8/13/41. This shows the lower one-half of Nottleman Island and Mr. Brown

has marked the dike lines by King Hill in red. A large area of the island is shown as cleared. Exhibit P-1728, the Corps of Engineer aerial photograph dated 11/12/41 of Nottleman Island, shows some cleared area immediately above the line fence and shows the large island with a considerable amount of vegetation and cleared land upon it. At this time, the designed channel is quite prominent.

An aerial photograph of the area was taken by the Corps of Engineers on April 14, 1952 during the 1952 flood (Ex. P-1741). This photograph shows a lot of water around the entire area, but there is still quite a bit of Nottleman Island which is above water. The water is spread out over the lowlands toward the east and a great deal of Tobacco Island to the north is covered by water, but the high portion and area of cleared ground on Nottleman Island still is prominent.

The Agricultural photograph of 8/17/59 of Nottleman Island shows a great deal of the land cleared and the building site in the middle of the island. It does not show any water running in the former channel on the east side, although there are low areas which appear to have some standing water in them (Ex. P-450). Another agricultural photo dated 8/17/59 shows the south half of the island with a great deal of cleared and cultivated land (Ex. P-449).

All of these aerial photographs show the island as having been in existence prior to the work by the Corps of Engineers in closing off the channel on the east side of the island and they showed cleared areas continuously from 1930.

Ownership and Possession of The Land On Nottleman's Island

Mrs. Ruth Dooley, age 52, testified that her maiden name was Shipley, and she first stayed on Nottleman Island in 1929 when she lived there the whole summer with her uncle, Harvey Shipley, and her grandparents, John Shipley and Nellie Shipley. When she first went over on Nottleman's Island they were living on the north half of the island and had a two-room house and barn. There was a fence running east and west which fenced the island in two. She was thirteen at the time and she went over in the spring as soon as school was out and stayed all during her summer vacation. The water between the Nebraska shore and the island was so you could have waded across to the island. She went from Queen Hill on the Nebraska side east over to the island. Her uncle, Ernest Shipley, and Aunt Charlotte lived on the south end of the island that year. She then testified that she was on the island off and on several times before she was married in 1934.

Right after they were married, she and her husband went down to the island and stayed that winter of 1934 with Harvey Shipley. Then they moved off in March of 1935 and moved back on in 1936 in the spring. They lived with her Uncle Harvey on the north half of Nottleman Island in 1936 and, during that period, Ernest Shipley continued to live on the island with his family. During 1936 they farmed the island, and her husband raised corn and alfalfa on the north half. Ernest Shipley lived on the east and north half of the island in 1936. However, in 1929, Ernest lived on the south half.

When they lived on the island in 1936, Ernest and Charlotte Shipley had two children whose names were Georgie and Erma Jean. Those two children went to school at Rock Bluff, Nebraska in 1936 and their mother took them by boat. At that time, there was a lot more water on the west half of Nottleman Island than there was back in 1929 when she first went on the island. It was still such that Mrs. Shipley could row a boat across. In 1936 Cleo "Toad" Baker and his wife, Thelma, lived on the island with their child, Donnie Paul. They lived on the south half and Mr. Baker was farming for Nottleman.

The Dooleys moved off the island the last part of 1937, and Ernie Shipley moved off the island after the Dooleys did but she didn't know just exactly when. Harvey Shipley still lived on the island up into the 1940's sometime. Mrs. Shipley identified the names of George and Erma Jean Shipley, her cousins, whose names appear in the census report to the County Superintendent, Cass County, Nebraska, dated June 4, 1937, showing them as included in the school census for that year (Ex. P-528). George Shipley was also included within the school census for 1936 (Ex. P-527) and George Shipley was shown as enrolled in the Teachers List of All Pupils Enrolled on the Third Day of School, Compulsory Educational Report of Public, Private, Denominational and Parochial Schools for District No. 5 dated 9-5-35. The school was right there at Rock Bluff.

They had two wells on the island where they got their water. There were three houses on the island. Ernest Shipley built one of the houses and Harvey built one, but

she did not know who built the other. Ernest Shipley's house on the east side of the north half of the island burned down at one time. It was not rebuilt. John Nottleman owned the south half, but he did not live on the island. There was farming on the south half and the north half. One child was born on the island to Ernest and Charlotte Shipley in the fall. That birth occurred in Ernest Shipley's house on the east side of the north half. A birth certificate from the State of Nebraska, Department of Health, shows the birth of Elaine Joyce Shipley on December 3, 1936, and the witness recalled that name and the birth and the witness lived on the island when that girl was born (Ex. P-526).

During the time the witness lived on the island, she stated that she considered herself a citizen of Nebraska and the other people on the island considered they were residents of Nebraska. That was common knowledge in the Rock Bluff area that these people were considered Nebraska citizens, and the witness said that was the reason they had to take their children to Rock Bluff school.

Upon cross-examination, the witness stated that her uncle went over to Iowa to see about sending his children over there and was told there was no school over there and they would have to take their children to the Rock Bluff school. The witness said the school officials wouldn't let them go to school over in Iowa. She didn't know if there was a school house or not.

She also testified that she saw an automobile over on the island. It was a coupe that had the back end cut off and a box built on so they could haul fencing material

in it. She didn't recall the year, but they had it over there when she went over and stayed when she was a kid. She reiterated that in 1929 you could wade across from the Nebraska shore and the water wasn't very wide then. It would have been a fourth of a mile. The witness also had been over on the east side of the island and fished in there. At that time she said there were no chutes down through the island but the main river ran down the east side of it. The east side had the most water. They ran boats up it. The current was on the east side and that is where the flow was. There was no current in the chute on the west side at all. When the water was high, then the water went through there. The Shipleys did not have to pay any extra fees or tuition to enable their children to go to the Rock Bluff school.

Edwin M. Dooley, age 62, was a foreman in heating and air conditioning at SAC Headquarters at Offutt Air Force Base, is the husband of Ruth Dooley and testified they were married in 1934. In that year, he worked on the river for a contractor on a pile driver and drove piling in the vicinity of Nottleman's Island. He did some work at the north end of Nottleman's Island in 1934 driving piling. He worked for A. W. Forney and testified that, before the work, the tow boats went up the east side or the Iowa side. When he was first in the Nottleman Island vicinity the main part of the water was running on the east side because the tow boats towing material would go up the east side. He stayed on the island the winter of 1934-35 with his wife's uncle, Harvey Shipley, who was living on the island and farming part of it. He estimated that Harvey was farming 50 or 60 acres in corn or alfalfa

and he had a horse or two and some cattle and maybe a few hogs and farm implements. There was a dividing line fence separating the north and south half in 1934, and he estimated the fence was 300 yards south of where the house was. There was a grove around the house and a garden. Ernest Shipley lived and farmed on the island, also.

They moved to Plattsmouth in the spring of 1935 and moved back to the island in the spring of 1936, again living with Harvey and farming for him that summer. Cleo Baker and Thelma Baker and Ernest Shipley and the Baker child, Donnie Paul, also lived on the island in 1936. While living on the island, he remembers there was a child born to the Ernest Shipleys. It was fall because he was hunting ducks and Ernest asked him to go get the doctor. He got Dr. Tyson from Murray, but when they got back to the island, Mrs. Shipley already had had the baby and everything was fine. Thelma Baker attended her. In 1936 he filed a personal property tax schedule in the State of Nebraska (Ex. P-540). Other Nebraska personal property tax schedules were offered for Ernest Shipley, Harvey Shipley, and Cleo Baker while they lived on the island (Ex. P-539, P-540, P-541, P-542, P-543, P-544, P-545, P-546).

In 1936, the witness farmed approximately 50 acres to corn and alfalfa. John Nottleman had several head of cattle on the south end during the time Toad Baker was living on the island, and the witness saw some officials come over and test the John Nottleman cattle for T. B. in July or August of 1936. He thought they were Nebraska officials, but, on cross-examination, indicated he was not

sure and they might have been working for the federal government.

In 1942, he again farmed approximately 50 acres on the island on the north half and at that time they lived at Rock Bluff. He rented it on shares with Harvey Shipley, using Harvey's equipment. In 1942, Harvey Shipley had a John Deere tractor, a two-row lister, plow and disc on the island and he had some cows and a horse there.

During the 1930's when he lived on the island, the witness considered himself to be in the State of Nebraska and a Nebraska citizen, which was the belief generally held by the inhabitants of Nottleman's Island and was fairly common knowledge in the whole Rock Bluff and Plattsmouth vicinity.

In 1942, the witness testified, the main channel had come to the Nebraska side. It moved to the Nebraska side in 1934 and 1935 when they drove piling at the head end of Nottleman Island to throw it to the Nebraska side. The witness further testified that the whole Ernest Shipley family lived on Nottleman's Island from 1934 to 1936. A certificate of death from the State of Nebraska Department of Health showing the death of Elenor C. Shipley from whooping cough on December 15, 1935, was offered (Ex. P-525). The father's name was shown as Ernest Shipley and the maiden name of the mother was Charlotte Ross Smith. On cross-examination, the witness testified he helped Harvey Shipley move off the island in 1943 when the island flooded and he helped Harvey get his cattle and things off. The dikes he worked on in 1934 came out from

the island toward the Nebraska side. He testified the main river was in that east chute then. They drove dikes right across the upper end of the island to shut off the Iowa side in late 1934 or in 1935.

The area presently considered as Nottleman's Island was specifically surveyed of record in a survey by R. D. Fitch, Jr., County Surveyor of Cass County, Nebraska, of August 18-25, 1933. This survey is found in the County Surveyor's office (Ex. P-2345) and shows the Island with the designation of John Nottleman on the South half with 162.1 acres of what is called high bar, and approximately 218 acres of low bar. On the North half of the Island the ownership is shown as in Harvey Shipley with 162.1 acres of high bar and approximately 414 acres of low bar. The Shipley home is shown on the north half and there is a building site location shown on the south half. Also on the south or Nottleman half there is an area labeled "Potato Patch". Willows are shown on the Island and the Missouri River is shown as being on both sides. This Fitch Map is also recorded in Plat Book 2, Page 19 in the Office of the Register of Deeds of Cass County, Nebraska, with some slight changes. Certain lot numbers are designated and some of the acreages are changed slightly and on the northwest corner an area is now shown under the designation Wm. Watts, et al with reference to "W. D. (Warranty Deed) Book 73, Page 66 44.0+." Then there is a block showing specific references to the Island by lot number, section, township, range and acreage and there is also a notation of a "line dividing High Bar into two equal parts".

On December 23, 1939, a quit claim deed was filed in

the office of the Register of Deeds of Cass County, Nebraska from Herbert Church and wife to Harvey Shipley, single, covering the north half of the tract known as Nottleman's Island which was surveyed by R. D. Fitch, Jr. during the month of August, 1933. The deed also contains the statement:

"... this deed is to supplement a conveyance of the same real estate made by Herbert Church, single, to Harvey Shipley in November, 1928 before Perry Graves, Justice of Peace of Cass County, and witnessed by Walter Furlong, which conveyance was in writing and properly signed, witnessed and acknowledged but never filed for record." (Exhibit P-458).

On April 10, 1937 a quit claim deed was filed with the Register of Deeds of Cass County conveying the northeast portion of the Island to William Watts and Mason Watts (Ex. P-460). On December 4, 1939 a Warranty Deed was filed with the Register of Deeds of Cass County, Nebraska from Harvey Shipley to Katherine Julia O'Brien conveying a 400 acre tract in the northwest portion of Nottleman's Island (Exhibit P-459).

On April 4, 1940, an action to quiet title to the north half of Nottleman's Island was filed in the District Court of Cass County, Nebraska, captioned *Harvey Shipley, William Watts, Mason Watts, and Katherine Julia O'Brien, plaintiffs v. Frank G. Hull et al.* This action included as defendants all persons having or claiming any interest in the real estate described. Also included as a defendant was Walter Gochenour who appeared as a riparian owner and as owner of a portion of Tobacco Island as it appeared on some of the earlier maps. The

Petition alleged that plaintiffs were the owners of the north half of Nottleman Island which had been surveyed by R. D. Fitch, Jr. in August of 1933 and:

“That in November, 1928, Herbert Church and his grantors had been in actual, uninterrupted, continuous, notorious, peaceable, adverse and exclusive possession for more than ten years. That in November of 1928, Herbert Church, single, sold said tract of land to Harvey Shipley, single. That Harvey Shipley and his subsequent grantees had been in actual, uninterrupted, continuous, notorious, peaceable, adverse, and exclusive possession of said tract of land and every part of it since November, 1928 to the present time and for more than ten years next preceding the bringing of this action.” (Ex. P-462)

The Petition then referred to the deed from Harvey Shipley to William and Mason Watts in April of 1937 and from Harvey Shipley to Katherine Julia O'Brien on the 4th of December, 1939 and alleged that the remaining land was still owned by Harvey Shipley. It alleged that the defendants, including Walter Gochenour, claimed some interest,

“by reason of direct ownership or by reason of the ownership of the land in Nebraska on the West side of the Missouri river; but the land described in Paragraph One of this Petition has been in the actual, uninterrupted, continuous, notorious, peaceable, adverse and exclusive possession of Harvey Shipley and his immediate Grantees, Katherine Julia O'Brien and William Watts and Mason Watts for more than ten years next preceding the bringing of this action.”

The plaintiffs prayed that title to the real estate be quieted in them in fee simple. Publication is shown in the *Elmwood Leader-Echo*, a legal newspaper in Nebraska,

commencing with the issue dated July 11, 1940 and ending with the issue dated August 1, 1940. A decree was entered on August 1, 1940 quieting title against certain of the defendants and finding that in November, 1928, Herbert Church and his grantors had been in actual possession for at least two years; that in November of 1928 Herbert Church sold said tract of land to Harvey Shipley and that Harvey Shipley and his subsequent grantees have been in actual possession since November, 1928, to the time of the action and for more than ten years preceding the bringing of the action (Ex. P-462 and Ex. "J" attached to Complaint).

Walter Gochenour appeared and contested the case and the court file showed a separate answer by him in which he alleged that he was riparian owner and,

"That that portion of the lands described in plaintiff's petition which lies east of said lots were accretions attached to said lands, and were so attached to said lands as accretions until the government engineers changed the channel in the Missouri river so that the channel cut off a large portion of said accretion; but nevertheless the accretions were the property of this defendant, and this defendant has claimed the title to said property and said accretions for more than ten years last past. That this defendant is the owner of the riparian (sic) portion of said lands by right of purchase for more than ten years last passed."

He further alleged that he was owner in fee simple of other lots and that the accretions set out in plaintiff's petition lying east of these lots "... were attached to said lots 11 and 12 until Federal Government Army Engineers changed the channel of the Missouri River and cut off a portion of said accretion; . . ."

This answer was filed August 26, 1940, and the plaintiffs, in their Reply filed May, 1941:

“admit that before the United States Government changed the Missouri river the land set out in the Petition was separated from the lands described in the Answer of Walter Gochenour and the lands of other defendants by a shallow and small channel of the Missouri River, and that the main channel of the Missouri River was on the East side of the land set out in plaintiff's Petition. . .”

and denied the other allegations. On June 19, 1941, the Cass County District Court entered a Decree quieting title in the plaintiffs against those other defendants not included in the first decree (Ex. P-462 and Ex. “K” attached to Complaint). The Court found that the plaintiffs had been in actual, uninterrupted, continuous, notorious, peaceable, adverse and exclusive possession of the land for more than ten years and all right, title and interest of the defendants should be barred. The index plat shows this area as being the north half of Nottleman's Island and the lots are identified by Nebraska descriptions so the area that Walter Gochenour owned on the mainland can be identified as a part of Tobacco or Gochenour Island. The Cass County real property tax records show Walter Gochenour as owning land extending across the old Tobacco Island area during the 1930's and James S. Gochenour as owner in 1940 to 1943 (Ex. P-548-1, P-550-3, P-552-2, P-554-2, P-556-4, P-558-4).

The south half of Nottleman's Island was included within the property in the Estate of John H. Nottleman, deceased, in the County Court of Cass County, Nebraska (Ex. P-464). The County Court records show that John

Nottleman died on March 31, 1940 and the following real estate is described in the inventory as being property of the estate:

“South end of the Island located in sections 9, 10, 15 and 16 in Twp. 11, N. Rge. 14, east of the 6th P. M. in Cass County, Nebraska, as surveyed in August, 1933, by R. D. Fitch, Jr., and filed in the Office of the Register of Deeds of Cass County, Nebraska, on January 3, 1935, and recorded in Plat Book 2, page 19, together with the accretions thereto and known as the south half of Nottleman’s Island.”

Also included in the personal property was considerable farm machinery and one ferry boat. There is an application by the administrator to sell the old machinery and two old tractors on the Island to D. M. Babbitt for the price of \$20.00 and there is in the Administrator’s Report the entries, “D. M. Babbitt, rent of Island,” showing \$50.00, and, “Jones & Babbitt, Sale of Island and personal property thereon” in the amount of \$1300.00. One of the appraisers of the estate was W. Rex Young, who was called as a witness for the defendant but had no recollection of having served as an appraiser.

The administrator then filed a Petition in the District Court of Cass County, Nebraska, for a license to sell the real estate, alleging that the deceased died “seized and possessed” of the land on Nottleman’s Island and praying for authority to sell it (Ex. P-463). The District Court entered an Order to Show Cause ordering that all persons interested in the Estate of John Nottleman appear to show cause, if any, why license should not be granted to sell the real estate and there was publication for three consecutive weeks in the Plattsmouth

Journal commencing with November 25, 1940, and ending with the issue of December 12, 1940. There is also a Notice of Sale published for three consecutive weeks beginning with January 13, 1941, and ending January 30, 1941, and there is a report of sale indicating the land was sold to J. L. Jones and D. M. Babbitt for the sum of \$1300.00, they being the highest bidders. The sale was confirmed and the executor was ordered to deliver a deed to the purchaser. An administrator's deed from J. H. Seiver to J. L. Jones and D. M. Babbitt was filed February 13, 1941, in the Office of the Register of Deeds of Cass County, Nebraska, conveying the south half of Nottleman's Island (Ex. P-469). Then on February 13, 1941, D. M. Babbitt and wife filed a mortgage to J. L. Jones with the Register of Deeds of Cass County (Ex. P-465). This described the premises as situated in Cass County and the index map shows the area to be the south half of Nottleman's Island.

CONSEQUENTLY, AT THE TIME OF THE IOWA-NEBRASKA BOUNDARY COMPACT, TITLE TO NOTTLEMAN'S ISLAND WAS IN HARVEY SHIPLEY, D. M. BABBITT AND J. L. JONES, WILLIAM AND MASON WATTS AND KATHERINE JULIA O'BRIEN AND EACH OF THESE TITLES WAS GOOD IN NEBRASKA. IN ADDITION, THERE WAS A MORTGAGE ON THE BABBITT LAND TO J. L. JONES AND THIS MORTGAGE WAS GOOD IN NEBRASKA.

On January 3, 1945, a County Treasurer's Tax Deed from Ruth Patton, County Treasurer of Cass County, Nebraska, was filed of record with the Register of Deeds

of Cass County conveying the O'Brien property to Margaret T. O'Brien (Ex. P-468). This deed states that at a public sale of real estate for the non-payment of taxes made in Cass County on the 21st day of November, 1942, Lot 1, Section 3; Lot 18, Section 4; Lot 13, Section 9 and Lot 1, Section 10, all in Twp. 11, Range 14, on Nottleman's Island, were sold to Margaret T. O'Brien for the delinquent taxes of the years 1940 and 1941 and ". . . the same not having been redeemed from such sale and it appearing that the holder of the certificate of purchase of said real estate has complied with the laws of the State of Nebraska, necessary to entitle Margaret T. O'Brien to a deed of said real estate; . . ." it was conveyed to her by the County Treasurer ". . . in consideration of the premises and by virtue of the statutes of the State of Nebraska in such cases made and provided . . ." This is the northwestern part of Nottleman's Island and Plaintiff contends comes within the provisions of Section 4 of the Compact which authorized taxes for the current year to be levied and collected and provided that the County Treasurers of the counties affected should act as agents in carrying out the provision of the section. The deed was issued within the five year period mentioned in section 4 of the Compact for enforcing such liens or rights.

Following the Compact, these same owners continued in the peaceful use and enjoyment of their land without interference from the Iowa Conservation Commission or the State of Iowa. Harvey Shipley conveyed a piece of land in the middle of the Island to George T. Troop and Mary Troop in 1945 (Ex. P-467). This land was

then conveyed by the Troops to Lee A. Sargent in December of 1953 (Ex. P-1083).

A Warranty Deed from Katherine Julia O'Brien to Margaret T. O'Brien dated February 25, 1947, was filed with the County Recorder of Mills County, Iowa, on March 24, 1947, conveying the northwest part of the Island (Ex. P-1669).

The Babbitt mortgage to J. L. Jones was satisfied in 1949 when a quit claim deed from J. L. and Pearl Jones to D. M. Babbitt was filed with the Mills County Recorder on April 1, 1949, conveying the south half of Nottleman's Island (Ex. P-466). Then in 1956 a Conveyance and Agreement was filed between R. C. and Laura C. Good and Darwin Merrit (sic) Babbitt and Frances Babbitt which constituted a boundary line agreement between the Babbitts and the Goods who owned the land on the Iowa mainland. The Goods also quit-claimed to the Babbitts any interest or right which they might have had in land on what was known as Nottleman's Island or accretions thereto (Ex. P-1073).

Although the State of Iowa claimed in its Answers to Interrogatories in the case of *Iowa v. Babbitt* that the State was in possession of the land, the documentary evidence as well as the testimony clearly shows that the individual title claimants at all times occupied exclusive control over the land and this occupancy was open and notorious. Mr. D. M. "Sandy" Babbitt, who is 67 years old and was a long-time resident of Plattsmouth, Nebraska, testified that he was the same party who was defendant in the case in Mills County which Iowa filed

in 1963. His land is the south one-half of the original Nottleman's Island. He first leased the land from the administrator of the John Nottleman estate in 1940. The Nottleman Estate proceedings were in the County Court of Cass County, Nebraska. In 1940 or 1941 he learned that the land was to be sold by reading a newspaper publication in the Plattsmouth Journal and he bid and was successful at a price of \$1,300.00 in 1941. His partner in the purchase of the land was J. L. Jones and they obtained a deed from the administrator of the John Nottleman Estate (Ex. P-469). Jones furnished the money and Babbitt did the work. In 1940 and 1941, there was lots of water on both sides of Nottleman's Island. They reached the island by barge. In 1940 the land consisted of cottonwoods, willows, grape vines and bullrushes and out in the center was an area that had been cleared of about 60 acres. It had grown up to willows again having not been farmed for two or three years. They started clearing in 1941 and the witness testified it was "tough going". Later, they got better equipment and between 1941 and 1960 cleared about 480 acres. Most of it was done by Babbitt and his boys Naasson and Wynne.

When Babbitt acquired the south half of the island, Harvey Shipley lived on and farmed about sixty acres on the north part. The witness testified that Harvey Shipley sold out to George Troop and Mary Troop, and north of that the O'Briens and Bill and Mason Watts owned some land on the island. Babbitt started putting two-strand barb-wire fence around the south half and ran forty or fifty head of livestock. Then he and George

Troop went together on cattle and leased the O'Brien end of the island and fenced it and had 225 to 230 cattle there at one time in about 1946 or 1947. Babbitt built facilities, good lots and fences, loading chutes and sowed alfalfa and made hog pastures and raised quite a few hogs on the island starting in about 1950.

In 1956 he had 270 head of hogs on the land and in December of 1956, Mr. Babbitt held a public auction on his land and this sale was widely advertised in the *Omaha Sunday World Herald* of December 2, 1956 (Ex. P-1849), the *Plattsmouth, Nebraska, Semi-Weekly Journal* of Monday, December 3, 1956 (Ex. P-2237), and in *The Glenwood Opinion-Tribune* of Glenwood, Iowa, on Thursday, November 29, 1956 (Ex. P-2236). These advertisements list a considerable amount of livestock and equipment to be sold, such as 45 Minnesota Holstein Heifers, 3 Brown Swiss Heifers, 2 Guernsey Heifers, 2-year old Angus Bull, 275 cross-bred pigs, International M Tractor, fertilizer attachment, plows, rake, harrow, feed wagon, corn picker, etc. The ads explain how to get to "Babbitt Island".

In 1940-1941 Babbitt started paying real estate taxes to Cass County, Nebraska (Ex. P-556-1, P-556-2, P-556-3, P-558-1, P-558-2, and P-558-5). Babbitt testified that he paid the taxes and still owns the land and has it fenced, is in possession and has a lock on the gate. After the 1943 Boundary Compact, he testified that other owners contacted him and said they had been advised that the proper method to put the property on the Iowa tax rolls was to bring a suit against the county and have their Nebraska titles placed upon record in the State of Iowa

so he joined them and paid his share of the cost, and that case was entitled *Watts v. Strand* (Gilliland Deposition 1).

Before he could have his property removed from the tax rolls of Cass County, Nebraska, he testified he was told by the County Treasurer in the year 1946 or 1947 that he would have to show that he was paying taxes in Iowa. He finally had the land taken off the tax rolls in Nebraska in 1952. He further testified to taxes paid in the State of Iowa (Ex. P-614, Ex. P-607, P-613). He also paid drainage taxes in Iowa because he had 14.5 acres in the drainage district and the tax pays for maintenance and construction of the drainage district (Ex. P-608). His 1962, 1963, and 1964 Mills County, Iowa, real estate taxes were paid after they became delinquent and Babbitt had received a notice of redemption. He had to redeem his taxes in Mills County within 90 days or Iowa would issue a tax deed to his land. The notice of redemption is Ex. P-484 and his property is shown as advertised for sale by the Mills County Treasurer in the Glenwood newspaper dated November 28, 1963, under the heading "Delinquent Real Estate Tax List for Mills County, Iowa" (Ex. P-483).

At one time, Babbitt became dissatisfied with the amount of taxes he was paying and tried to have them reduced by going before the Board of Review in Iowa. This law suit was captioned *Babbitt v. L. E. Edwards, et al.*, in the District Court of Iowa for Mills County and the decree was filed November 30, 1961 (Ex. P-471). The allegation was made in the petition that the plain-

tiff was the owner of real estate in Mills County and the answer filed by the Mills County Attorney admitted that allegation.

Mr. Babbitt testified concerning the clearing of land on the island and how it was slow, hard, tedious work. On the western part, he had a saw mill in the 1940's and the larger trees were cut and 220,000 board feet of lumber were sawed out of there. The larger timber was on the west of the island.

In 1954 a photographer from the *Omaha World Herald* took photographs of trees and clearing on the Island and one photograph showed Wynn (Bill) Babbitt measuring across a tree and some of the other photographs showed the land being cleared (Ex. P-488 through P-496). These photographs appeared in the *Omaha Sunday World-Herald* of February 7, 1954, in a newspaper article with six pictures. It also showed Bill Babbitt measuring the trunk of a tree which measured 36 inches across. The article talks about a new frontier along the Missouri River bottom and stated that:

"Mr. Babbitt owns 600 acres of the 'Island' . . . Last year he produced 75-bushels of corn on areas that had been cleared by more laborious methods."

The article also said:

"Dozens of river bottom landowners, anxious to get rich bottom soil into production now that the flood threat is fading, have driven down to see the new clearing device in action. . . ."

The *Omaha Sunday World Herald* also carried an article on October 2, 1955, showing D. M. "Sandy" Babbitt holding soy beans in both hands and the article stated:

“Mr. Babbitt has 50 acres of them on his Missouri River Island farm southeast of Plattsmouth.” (Ex. P-1857)

This bean crop was on the south half of Nottleman’s Island and he had about fifty acres in beans out of approximately 320 total acres under cultivation at that time. He was still clearing his land at that time. He kept no records of the cost to clear the land on Nottleman’s Island, but stated:

“I put every dollar I ever made in this farm to make a good farm of it. I made some money in the implement business, handling Holstein heifers, and every dollar went in there. I have no idea what the amount was.” (Vol. I, p. 76)

This is what he had after what it took for living expenses.

Mr. Babbitt testified that in 1940 there was a property line fence between him and his neighbor to the north which was an agreed-upon fence line. This was kept in repair with each farmer maintaining one-half and since then Babbitt has built a new fence. Babbitt also put an Inland Steel bin on the island and mortgaged it to the Commodity Credit Corporation (Ex. P-486). He mortgaged the real estate upon which the bin was placed which was filed on November 21, 1959, with the Mills County Recorder. This mortgage was in the principal amount of \$6,564 and covers his land on Nottleman’s Island. He also obtained a storage loan and so, in his dealings with the United States Department of Agriculture, Agricultural Stabilization and Conservation Service and with the Commodity Credit Corporation, these governmental agencies raised no question as to his title.

Babbitts also had a cabin on their land and they have the usual farming equipment there presently, such as corn pickers, wagons, and tractors, and there is also a steel shed presently on the land. Photographs are in evidence showing these items (Ex. P-1850 and P-616 through P-621). He presently is leasing the farm to his son and he started leasing it in 1956 on crop share rent. During some years he has been flooded out and lost all of his crops, and the first thirty acres of corn he planted over there went down the river in 1941 or 1942. When Babbitt first came on the land there was about 60 acres that had been cleared and had been farmed in potatoes and alfalfa. He testified there was an old alfalfa stack out there about 25 x 60 feet long, but John Nottleman had passed away and for two or three years it had not been farmed.

Mr. Babbitt also had the property surveyed and the survey filed of record in Mills County, Iowa, in 1959 (Ex. P-1077), and he later filed an affidavit of possession pursuant to advice of his attorney in 1963 (Ex. P-1072).

The first notice which Mr. Babbitt received that Iowa might be claiming his land was when a friend called him from Council Bluffs and told him about an article in the *Council Bluffs Nonpareil* of February 19, 1961, entitled "MISSOURI RIVER COULD BECOME A 'PLAYGROUND' ". A map was attached to this article showing thirty areas along the Missouri River which the State of Iowa claimed, including Nottleman's Island and Otoe Bend Island. The article mentioned that there were,

“twenty-five tailor made areas for recreational facilities which could be put to use advantageously with little cost and work. Between Missouri Valley and Sioux City, there still are many oxbows that will be cut off when the newly designed channel work is done. These are the areas that have a great present value and high potential for use as public recreation areas, the Commission pointed out. The Commission report added that the development would be expedited to a large degree if the State Boundary line is set as the center of the new channel. A lack of a definite division line between Iowa and Nebraska has caused considerable problems. Several of the oxbows being considered for development are east of the new channel and are made up of Iowa and Nebraska lands.

The twenty-five areas contain an estimated 15,567 acres of water, land, marsh and sand dunes. There are 11,807 acres in twenty-one areas on the Iowa side and 3,760 acres in the other four in Nebraska.” (Ex. P-2608).

The very fact that Iowa announced they were claiming title made it impossible for Babbitt to borrow money on his land in order to finance his agricultural operations. By letter of October 20, 1961, the South Omaha Production Credit Association stated to Babbitt:

“I have discussed your recent request for additional credit with our executive committee and must advise that it has not been granted.

Although your present loan is of a reasonable size in comparison to your financial position, we cannot see our way clear to actually base the loan on the 640 acres of real estate. The State of Iowa apparently claims an interest in this land and in our opinion this clouds the title. If our attorneys were satisfied that you held an absolutely clear title we would have no problems meeting your needs. As it now

stands, we cannot do more than offer a loan which is based entirely upon chattel property.” (Ex. P-475)

Mr. Babbitt spoke with John M. Creger, Assistant Attorney General of Iowa concerning their plans with regard to his land and received a letter dated November 22, 1961, which stated:

“Although it is impossible to give an absolutely definite answer to your questions at this time for a number of reasons, I think you may definitely assume for the present at least, that the State of Iowa, through the State Conservation Commission, does in fact claim title to so much of the above property as is physically located within the State of Iowa and intends to commence action to enforce its claim.”

Babbitt also attempted to obtain a loan from Metropolitan Life Insurance Company and received a letter from the law firm of White, White & McMartin dated October 26, 1962, in which they explained that the Metropolitan Life Insurance Company had been unwilling to make a loan secured by Babbitt's Nottleman Island real estate. The letter quoted from Part I of the Missouri River Planning Report and mentioned that the State of Iowa through its State Conservation Commission was claiming title to the Island and said:

“It is my opinion that the Metropolitan Life Insurance Co. can not safely make you a loan upon this tract until the claim of the State of Iowa is disposed of in your favor.”

Wynne M. “Bill” Babbitt, 39, is the son of D. M. Babbitt and testified he first went over on the island in about 1940 when he was about eleven years old. He tes-

tified he had been engaged in clearing the land since 1940 and described the work done in clearing the island. He identified photographs taken in 1954 by the Farm Editor of the *Omaha World Herald* (Ex. P-488, P-490 through P-496). He testified he was presently farming the land and had a crop there last year and was going to plant a crop in 1969. They had about 620 acres of crop land and last year they were in the soil program with 212 acres of corn and 170 acres of beans. He also testified about the equipment which had been used for clearing the island down through the years and some of its costs and that he was involved in clearing over 400 acres of land from 1944 through 1957. From this experience and his experience as a commercial land clearer, he testified the average cost of clearing the 400 acres was at least \$100 an acre and this would not include the burning and reburning and discing afterwards. Aside from his own labor and machinery, they hired probably twenty or twenty-five people at one time or another cutting stumps, willows, and operating machinery. A photograph of the cabin which they moved on the island in the early 1950's was offered as Ex. P-1850. Bill Babbitt testified that, from 1941 when his father purchased the land until the present time, his father had full control over the property. If people trespassed they were informed about it and left. The land was posted with "No Trespassing" signs by Babbitt and by the Deputy Sheriff or Sheriff. The State of Iowa Conservation Commission or any agency of the State of Iowa never posted any signs around Nottleman Island designating it as Iowa State land.

George Troop of Murray, Nebraska, testified that he first became familiar with the Nottleman Island area in about 1944 when Mr. Babbitt owned land there, and in 1945 Mr. Troop bought land on the island from Mr. Harvey Shipley (Ex. P-467). They called it approximately 370 acres. At that time, some areas were used for pasture and approximately 70 acres were cleared and the rest was just timber and rushes. Troop brought in equipment and farmed there. During the time Troop had the property, he removed some stumps and a tree here and there from the cleared area. In 1953 he sold to Lee Sargent (Ex. P-1083). The Sargents paid \$13,000 for the crop and land.

Mrs. Alva Mather, age 61, testified that she and her husband lived on the island in 1946 or 1947, but she was not sure exactly which year. At that time they called it Troop and Babbitt Island. They lived on the island in a trailer house and there was water running all around the island. There were a few old buildings on Babbitt's land and people had lived there. When they moved over on the island, there was some land cleared and Mr. Mather cleared some more. They farmed and then the flood water came and they lost most of it. They got their wheat off and saved 400 or 500 bushel of corn. At that time, the Mathers had two pet pigs on the island and Babbitt had cattle there. Several photographs were introduced into evidence which had been taken on the island by the Mathers when they lived there. These pictures showed corn cribs, tractors with which they were farming the land, a shed and corn crib, the government barge moving equipment down to the island, the trailer

house, her garden with a fence surrounding it to keep the cattle from coming in, the pigs, a grain elevator, two full corn cribs, a wagon and shed, and Babbitt and Troop with rabbits they had shot on the island (Ex. P-1763A through P-1763N).

Raymond P. "Red" Jones, born in 1893, testified that he had been a saw mill operator since 1921 and he bought logs from Sandy Babbitt during part of 1947 and 1948. This was done on what he always called Babbitt Island out from King Hill or Queen Hill. He was looking for logs somewhere around two feet. He was there approximately a year with a crew of four or five men. One of the men stayed on the Powles place and the rest stayed on the island which had some shacks on it. He paid Babbitt \$1,100 for 220,000 board feet at \$5.00 a thousand. He didn't take any trees that weren't about 18 inches in diameter and some of the trees were two feet in diameter. He also logged on the Sargent land about a year and took about 150,000 feet off the Sargent land and he was on the Bill Watts' land about 75 days and logged 46,000 board feet there. He logged less than 20,000 feet off the O'Brien land. While he was on the island, there was wheat and corn on the Babbitt and Sargent land and Bill Watts just had corn. There were some shacks on the island and he testified Sandy Babbitt had one right south of where the mill was set and that was pretty close to Troops and then Troop had a kind of three-room house which was the best building on the island. That was the one that the Sargents got. There was no farming on the O'Brien land, but O'Brien had put some wheat up there to have a place to hunt geese.

He testified that when he logged like that they cut down the trees and dragged them to the mill and left a stump. There were two fences on the island with one fence between Sandy Babbitt and the Sargents and a fence between the Sargents and Watts and O'Brien. Jones said he left some pretty big trees when he left and there were also some pretty good size willows, but they weren't nearly as big as the cottonwoods.

Merrill Sargent, age 42, from Pacific Junction, Iowa, testified that he was farming land on Nottleman's Island. He identified the Detsauer Farm as being at the intersection with the large "hand painting" on the garage door showing a roadway leading up through the timber and trees. Queen Hill and the elevator at Rock Bluff were across from Nottleman's Island. He testified his father acquired the land back in about 1953 from George Troop and he identified the deed (Ex. P-1083). The Sargents farm around 355 acres on Nottleman's Island and there is some land that hasn't been cleared yet. Babbitt is directly south of Sargents and O'Brien is to the northwest and Watts farm on the northeast. The Sargent land is in the center section of the island. There are fences or dividing lines between their property. The south fence is completely across the island and the north fence is around the O'Brien farm and the Watts portion isn't fenced.

In 1953 when Sargent's father acquired the land, he got the corn crop and the witness picked the corn crop in October of 1953. This was approximately 80 acres in irregular patterns and patches and the rest of the land was uncleared. Following 1953, he acquired an old bull-

dozer and started clearing the land and then he acquired a tree cutter and a Rome disc to follow up with and spent about three years clearing. He got crops from 1953 to 1956 while he was clearing. In the three-year period, he cleared about 300 acres, finishing in about 1957. They've had crops on the island every year since 1953 barring 1967 when everything was lost in a summer flood. In 1953, there were a couple of small, kind of run down, sheds on the land.

In 1957, the witness's father died and his estate was probated in Glenwood, Mills County, Iowa. The land was left to the witness and his brother who were co-executors of the estate. The estate included this land and a copy of the order approving the final report and discharging the executors with the receipt from the Iowa State Tax Commission for payment of inheritance taxes is in evidence (Ex. P-1696). An inheritance tax was paid to the State of Iowa and they had to acquire additional money so they executed a mortgage to the Travelers Insurance Company and borrowed \$110,000 on the Nottleman Island land as well as other land (Ex. P-2610). They did everything that was required by the insurance company to bring their title "up to every legal aspect we had." Pursuant to advice of their attorney they also filed an Affidavit of Possession under the Iowa Marketable Title Act, Section 614.17 of the 1954 Code of Iowa on June 12, 1957, in the County Recorder's Office of Mills County, Iowa (Ex. P-2611).

Since the time the property was acquired from his father's estate, the witness and his brother have oc-

cupied the property and farmed it and have not leased it to anybody. They built a couple of steel grain bins between 1961 and 1962. During that time they had no contact with any members of the Iowa State Conservation Commission or officials of the State of Iowa concerning claims by the State of Iowa. The witness and his brother are defendants in the lawsuit in the District Court of Mills County, Iowa, entitled *State of Iowa v. Babbit, et al.* He first found out about the lawsuit by reading about it in the papers and sometime later a sheriff brought in a legal document. Nobody from the State of Iowa ever came around to ask what his claim was or went out on the island or marked it with signs. In his opinion, the land would bring \$600 or \$700 an acre for most of the 350 acres. Possibly 40 acres which hasn't been cleared would be worth \$200 or \$300 per acre.

Mrs. Margaret T. O'Brien testified that she is presently 60 years old and resides in Omaha. She was married to an attorney, Charles E. O'Brien, in 1935, and Mr. O'Brien had practiced law from 1934 until his death in 1960. She identified the deed from Harvey Shipley to Katherine Julia O'Brien which was filed in Cass County, Nebraska, on December 4, 1939 (Ex. P-459). This is the same Katherine Julia O'Brien who is the sister-in-law of the witness. She also identified a certified copy of a tax deed that conveyed the land from the County Treasurer of Cass County, Nebraska, to her (Ex. P-468). She testified her husband represented her and she wouldn't know the exact transaction but would assume that it was bought for her at a tax sale in Cass County, Nebraska. The exhibit is a county treasurer's tax deed

filed January 3, 1946, at 10:10 A. M. with Lucille Horn Gaines, Register of Deeds and is dated the 3rd day of January, 1945, and signed by Ruth Patton, County Treasurer of Cass County, Nebraska. The O'Briens claimed land on Nottleman's Island from shortly after the deed in 1939 from Harvey Shipley to her sister-in-law. This witness got title from the time of the tax deed.

She testified she was first on the land in 1939 and that her husband went there many times. At first it was what you would call primitive land, mostly used for hunting or recreation. Then as soon as some land was cleared, it became farm land. There were no buildings on the land when they first got it but they brought in a small building that would do for overnight if people were hunting, and set it up on a temporary foundation. This was probably about 1940 and her husband hunted there a good deal. She testified that 200 or so acres have been cleared at a cost of at least \$10,000, according to her records. She thought the clearing was done by a corporation out of Des Moines, Iowa, which had heavy equipment. Some of it was done by a man named Don Blodgett who was from the area. The building that Mr. O'Brien brought on the land was taken by the flood of 1952. The river cut in and cut the corner of the land the building was on. The land is presently farmed and leased to Clay DeLashmett who lives at Pacific Junction. It had been leased since about 1950 or 1952. The income varied and two years ago there was a flood and there was no income, but the previous year it produced a good crop. The gross was something over \$8,000 which was her share under the crop sharing arrangement.

Mrs. O'Brien was shown Exhibit P-1617 which is a copy of entries in the records of the Mills County, Iowa, Recorder's Office which has a notation on line 6 of a deed from Katherine Julia O'Brien to Margaret O'Brien with a notation "Returned 3-25-46". She believed this was the beginning of the effort to have this land placed on the tax rolls in Mills County, as they refused at first to accept the land. At that time the engineers had changed the channel and Plattsmouth was no longer in a position to accept the tax, and her husband made many trips back and forth arranging and bringing suit to get it put on the tax rolls in Mills County, Iowa. Mr. O'Brien sometimes had help from Mr. Gilliland and Mr. Drake on various things that came up. She also had filed an affidavit of possession in Iowa on the advice of her attorney, Mr. Smith, from Council Bluffs (Ex. P-1698).

Mrs. O'Brien first became aware that the State or Iowa might be claiming the land when she saw something about it in the paper. She didn't know it was the exact land at that time, and then shortly thereafter Mr. Babbitt stopped in and called her and came to visit about it. The first actual notice was the serving of the summons for suit. She is a defendant in that proceeding pending in Mills County, Iowa, entitled *State of Iowa v. Babbitt, et al.* She never had any discussions or correspondence or contact with representatives of the Iowa Conservation Commission before they brought suit.

She testified that she has been paying her real estate taxes in Mills County, Iowa, and last year they amounted to \$571.60 whereas back in 1960 they were only \$350.00.

The income which she receives from the land is "pretty important" to her.

Albert Mason Watts, whose testimony has previously been referred to in connection with the formation of the island area, testified that he and his brother, William Watts, bought a part of this land on Nottleman's Island from Harvey Shipley and he thought Nottleman got the land from a man named Church. The deed was filed on April 10, 1937, with the Register of Deeds of Cass County, Nebraska (Ex. P-460). This is in the northeast part of Nottleman's Island. The land immediately to the west was owned by Charlie O'Brien and to the south the Sargent boys owned a strip and south of there Sandy Babbitt owned the rest. They bought only 100 acres to start with and at that time the land was all brush and timber. From 1937 to 1940 they had a dozer out there and cleaned the trees off and farmed it as best they could. They paid taxes on this land in Nebraska for eight or nine years and then he testified they sued the State of Iowa to get the land transferred and put on the Iowa tax books. They first had a quiet title action in Nebraska to clear their title and they had a regular court session over there in Plattsmouth. This was the quiet title case of *Shipley v. Hull, et al.* (Ex. P-462).

Charlie O'Brien came down there hunting and they got him to quiet title in Nebraska and make their title as good as he could for this piece of land. After that, they sued the State of Iowa to move their records over into Iowa to put the title in Iowa instead of Nebraska because they were then on the wrong side of the river.

They relied upon their attorney, Mr. O'Brien, in the case at Plattsmouth and then hired Mr. Whitney Gilliland as their attorney to help get it transferred over into the State of Iowa. This was the case of *Watts, et al. v. Strand, et al.* (Gilliland deposition, Exhibit 1). The case would have been in 1946 and the witness has been paying taxes in Iowa ever since.

Mr. Gilliland later told the witness that he had some kind of communication with the Attorney General of Iowa and the Attorney General had given him a letter of recognition that the Wattses were the legal, lawful owners of the land. They relied upon Mr. Gilliland's advice.

William Watts died about three or four years ago and the witness was the administrator of his estate. The pleadings from the estate of John William Watts were offered, including the Commission to Inheritance Tax Appraisers, a tax receipt from the State Tax Commission of Iowa with regard to the inheritance tax, and the Final Report and Order Approving Final Report (Ex. P-1750). Mason Watts and his brother had owned the land in joint tenancy and the brother's interest in the island was appraised by the Iowa State Inheritance Tax appraisers at \$10,000 and an inheritance tax of \$566.67 was paid to the State of Iowa on the entire estate.

The witness also testified that he was very active in the conservation field and at one time when they owned the land on the island, Bruce Stiles, head of the Conservation Department in Des Moines, was visiting them and the Wattses tried to get Stiles to take over the land.

They told him they would sell it to him for practically nothing or give it to him if Iowa would make a game preserve out of the island, and Stiles refused to take any part of it. Stiles didn't want anything to do with it.

There is a fence line between the Watts and O'Brien land. It was fenced as soon as they got it and they lost two or three fences in floods. The land has also been posted against trespassers. Of the 238 or 240 acres the witness owns on the island, only about 79 acres are cleared. They are farmed by his renter, Billy Barker, who has been renting it for two or three years. The Iowa State Conservation Commission has never placed any signs in that area or any fences to designate the boundaries of their claimed lands. The present crop is in corn and last year it yielded close to 100 bushels an acre. The year before that it was lost because of the flood. Last year the witness's share of the crop was a little better than \$2,000.

The witness is also a defendant in the case in the District Court of Mills County, Iowa, brought by the State of Iowa to attempt to quiet title to the land on Nottleman's Island. No one from the Iowa State Conservation Commission talked to this witness before the suit was filed.

Exercise of Jurisdiction Over, and Taxation Of Nottleman Island By Nebraska

Nottleman Island was surveyed by the Cass County Surveyor as a separate island on August 18-25, 1933, and this survey was filed in the Office of Register of Deeds

of Cass County as well as in the Office of the County Surveyor (Ex. P-735 and P-2345). The tax records of Cass County for the years 1930, 1931, 1932 and 1933 appear on the same pages in the Assessment Records, Rock Bluffs Precinct, Cass County, Nebraska, and those pages show the "N $\frac{1}{2}$ of Nottleman Island in Mo. River" assessed to Harvey Shipley and the "S $\frac{1}{2}$ of Nottleman Island in Mo. River" assessed to John Nottleman. A notation is also made:

"Surveyed by Robert D. Fitch and reported to Co. Assessor for Assessment for Sept. 7, 1933." (Ex. P-548-1)

These assessment records for the years 1930 through 1933 also show the land on the Nebraska bank and Tobacco Island as being assessed in Nebraska (Ex. P-548-2). The index maps show the designed channel of the Corps of Engineers, an Island just to the north on the Nebraska side which was a part of the original government survey of the south end of Tobacco Island, an island extended further south from this Tobacco Island which was a part of a Cass County Survey, the Nebraska bank line from Cass County Court House Records, and Nottleman Island as it appeared in the Fitch survey. Also shown is the outline of Nottleman Island from the tri-color map.

One of the certificates of the Deputy Assessor attached to the Cass County tax records states:

"I, Alfred Gansemer, Precinct Assessor of Murray, do solemnly swear to the best of my knowledge and belief that the schedules and books of assessment heretofore returned by me contain a correct and full

list of all real estate and personal property subject to taxation in Rock Bluffs so far as I have been able to ascertain the same; . . . ” (Ex. P-549).

The assessment records for 1934-1935 show Harvey Shipley and John Nottleman as owners of the island (Ex. P-550-3, 550-2, and 550-1).

The tax records show part of the island was divided for 1937 and show Harvey Shipley, William and Mason Watts, and John Nottleman as owners of the island. The assessment records for 1938 and 1939 show a further division of ownership and show the ownership in Harvey Shipley, Katherine Julia O'Brien, William and Mason Watts, and John Nottleman (Ex. P-554-1, P-554-2 and P-554-3). In the 1940-1941 Assessment Records for Cass County the name "John Nottleman" has been crossed out and J. L. Jones and D. M. Babbitt has been inserted and the island is identified by specific lot numbers (Ex. P-556-5, P-556-4, 556-3, 556-2 and 556-1). In 1942 and 1943 the lots are referred to as being on "Nottleman Island" and are again shown assessed in Harvey Shipley, Katherine Julia O'Brien, William & Mason Watts and J. L. Jones & D. M. Babbitt.

The Cass County Records show a letter dated August 20, 1952, to the Cass County Assessor from Richard C. Peck, Cass County Attorney, which was found in Book 15, 1952-53 Real Estate Assessment Records in the Cass County Assessor's Office. The letter states that there was pending in the Cass County District Court a tax foreclosure action upon various tracts located on Nottleman's Island and then stated:

“An independent investigation reveals that under the Nebraska-Iowa Compact of 1943, this Island became a part of the State of Iowa and is presently taxed in that State.”

At the bottom of this letter is a notation:

“The Board of County Commissioners of Cass County, Nebraska hereby approves the removal of Nottleman’s Island from the tax list by the County Assessor of Cass County, Nebraska for and after the year 1943.”

and this notation is signed by the Board of County Commissioners (Ex. P-474).

In addition to taxing the island as a part of Nebraska, the State of Nebraska and its subdivisions exercised personal jurisdiction over the individuals residing upon Nottleman Island and they considered themselves as citizens of Nebraska.

The personal property on Nottleman’s Island was listed in Nebraska personal property returns filed by those residing on the island. The 1936 Nebraska personal property tax return of Ernest L. Shipley shows him as living on the “N 2 of Nottleman Island” and lists property such as a hayrack, stacker, sweep & loader, pulverizer, disk, field roller, harrow, plow, go-dig, walking and riding cultivator and one wagon. It also lists one pony and plug (Ex. P-539). There were in the records schedules for 1936 for E. M. Dooley living on the “N 2 of Nottleman Island Mo. River” (Ex. P-540); 1936 personal schedule for Cleo Baker living on “S 2 Nottleman Island Mo. River” (Ex. P-541); 1936 personal schedule for H. C. Shipley showing, in addition to cer-

tain equipment, one bull, four stock cattle, one three-year old and over horse, and two hogs (Ex. P-546); 1937 schedule for Harvey Shipley describing the land as "Shipley Island Mo. River" (Ex. P-545); 1939 schedule for Harvey Shipley (Ex. P-544); a 1941 personal schedule for Harvey Shipley (Ex. P-543); and a 1942 personal schedule for Harvey Shipley showing him as living on "Nottleman Island" (Ex. P-542).

Harvey Shipley, Ernest L. Shipley, and Cleo and Thelma Baker registered their motor vehicles and trailers in Nebraska during various years when they lived on the island running from 1935 through 1940 (Ex. P-512 through P-517 and P-521 through P-524).

The school records of Cass County show George and Erma Jean Shipley, children of E. L. Shipley, attending schools in Nebraska during the time that the Ernest Shipley family lived on the island (Ex. P-535, P-536, P-537 and P-538).

The records for the term commencing 9/6/37 and ending 5/20/38 show Erma Jean and George Shipley as having "Moved". George Shipley attended school 113 days that year and Erma Jean attended 114 days (Ex. P-538).

The school records also show that Donald Paul Baker, son of C. G. Baker, attended school in Nebraska while Cleo Baker lived on the island in 1937 (Ex. P-535) and 1938 (Ex. P-538).

On the TEACHER'S LIST OF ALL PUPILS ENROLLED ON THE THIRD DAY OF SCHOOL, the Ne-

braska school laws are quoted indicating these reports were filed pursuant to statutory requirement (Ex. P-534).

In addition, a child was born on the island to Charlotte and Ernest Shipley and the birth certificate was filed with the State of Nebraska, Department of Health, Division of Vital Statistics, showing this birth on December 3, 1936 (Ex. P-526). Mr. Dooley testified as to this birth. There was also a Certificate of Death filed with the Division of Vital Statistics of the Nebraska Department of Health showing the death of Elenor C. Shipley on December 15, 1935, of whooping cough. The father was shown as Ernest Shipley. Elenor, according to the death certificate, was shown as having been born on November 3, 1935. Each of these dates was while Mr. and Mrs. Ernest Shipley lived on Nottleman Island.

Previous mention has been made of the quiet title action to the property in Nebraska of *Shipley v. Hull* (Ex. "J" and "K" attached to Complaint, Exhibit P-2615, Exhibit P-462) and inclusion of the property in the John Nottleman Estate probated in the County Court in Nebraska and sold through District Court proceedings (Ex. P-463 and P-464). Mention has also been made of the tax sale by the County Treasurer of Cass County to Katherine Julia O'Brien in Nebraska for delinquent taxes for the years 1940 and 1941 (Ex. P-468).

Conduct of the State of Iowa With Reference to Nottleman's Island

The testimony of Whitney Gilliland and Margaret O'Brien showed that in early 1946, the O'Briens attempt-

ed to file with the Mills County, Iowa, Recorder's Office a deed conveying land on Nottleman's Island from Katherine Julia O'Brien to Margaret T. O'Brien, but the Mills County Recorder refused to accept it. This was substantiated by the General Index Deeds, Lands, Mills County Recorder's Office which has an entry which shows the deed dated January 2, 1946, and the offered date of filing of March 22, 1946, and the records have the notation "Not Recorded" and "Returned 3/25/46 O'Brien, Katherine Julia" (Ex. P-1670).

Mr. Lewis S. Robinson, Glenwood, Iowa, age 55, testified that in 1937 he became a clerk in the office of the Mills County Auditor and he later became deputy auditor and prior to World War II County Auditor of Mills County, Iowa. He was Auditor in March of 1946. He testified that the Recorder did not have any place to record the O'Brien deed and she returned it to the Auditor's Office because she had no record books in which she had this area designated. The description in the deed carried section, range, and township designations which were not Iowa descriptions, but were Nebraska descriptions. The witness then contacted Mr. W. R. Byington, County Attorney, and he recalls this incident so well because they made quite a detailed study as to how this should be handled. First they went to the Clerk's office in Cass County, Nebraska, and found that this same piece of land was being carried on their real estate tax rolls. They then visited the Area Corps of Engineers Office in Omaha to see how the land was described and from there they went to other Iowa river county officials and found that they had the same problems and they had

found no solution for them. Then Mr. Byington wrote a request to the Attorney General of the State of Iowa requesting an opinion. The witness and Mr. Byington delivered the request in person to a deputy in the State Attorneys' Office in Des Moines. They discussed the situation with Mr. Strauss, a deputy Attorney General, and left the question with him. The witness never heard of any answer to that request. There was a great deal of confusion concerning treatment of these lands.

In an effort to resolve this problem, the witness wrote the General Land Office by letter dated April 25, 1946, and this letter states in part as follows:

“In 1943 the Legislatures of the two States of Iowa and Nebraska passed an act establishing the center of the channel of the Missouri River as the boundary line between the two states. This was done because the river had changed its course in previous years putting lands of each state on either side of the river adjoining lands of the other state. The acts of the two State Legislatures was approved by Congress July 12, 1943. Public Law 134, Chapter 220, H. R. 2794 of the 78th Congress.

Due to this boundary change, Mills County, Iowa, has acquired a certain area of land of approximately 1500 acres. This piece of land, formerly of Cass County, Nebraska, known as ‘Nottleman’s Island’ carries the Township and Range designations of Nebraska. Now that this area is part of Iowa we are faced with the problem of setting it up for assessment and taxation. And also with the setting up of plats and transfer of title records. During the war years, and up to now nothing has been done in re-establishing the area as Iowa land. However, recently a deed was filed in this county on part of it,

and property owners have also requested that they be assessed and taxed in Iowa.

Nebraska township and section lines will not join with Iowa lines when projected. We should like to know if any survey is on file from which we might obtain Iowa designations for this area. Or, their not being, how the identity of this land could be re-established in order that it might be tied in with the land it now adjoins. It is believed that the area affected, if properly identified, would lie in parts of Sections 18-19-20 and 30 of Township No. 71 North and 43 West of the 5th Meridian.

Counties other than ours have similar difficulties but none we have contacted has arrived at any satisfactory solution. However, in the filing of the deed on this land, it becomes imperative that we know how such land is to be correctly described now that it has become a part of Iowa. We hope that your office may provide the answer, or at least the means to it. . . ." (Ex. P-2398)

The reply from the Acting Assistant Commissioner of Department of the Interior General Land Office, dated June 25, 1946, stated:

" . . . Your letter calls attention to the fact that by the act of July 12, 1943 (57 Stat. 494), Congress gave approval and consent to the pact entered into by the States of Iowa and Nebraska establishing the center of the channel of the Missouri River as the boundary between the States. As a result of the pact, it appears that about 1500 acres of land formerly in Cass County, Nebraska, are now located in Mills County, Iowa.

This area was originally surveyed in Nebraska and is shown upon the official plats of survey presumably as Tps. 11 and 12 N., R. 14 E., 6th P. M.

Since the pact transferred the jurisdiction from Nebraska to Iowa but did not affect the ownership of the lands, it would appear that the land descriptions used in disposing of these lands would be appropriate for the purposes of assessment and taxation." (Ex. P-2398)

Mr. Robinson also testified that at the time of the letters to the General Land Office he had no descriptions on his records showing land in that Nottleman Island area. They were still waiting for an opinion from the Attorney General at the time he left the County Auditor's Office in July of 1946.

Mr. Whitney Gilliland, age 65, testified by deposition taken in Washington, D. C. on January 23, 1969. His personal knowledge concerning the Nottleman Island area has been previously referred to. Mr. Gilliland has been a member of the Civil Aeronautics Board since 1959. From 1954 to 1959 he was Chairman of the Foreign Claims Settlement Commission of the United States and before that was Chairman of the War Claims Commission and immediately prior thereto was Assistant to the Secretary of Agriculture. Before 1953 he was in the general practice of law at Glenwood, Iowa, for a period of about 24 years with an interruption or two. In about 1938, he served for a period of time on the District Bench in southwestern Iowa, which is a court of general jurisdiction in Iowa. He left the bench to return to the practice of law and testified that sometime in 1946 some of the owners of land on Nottleman Island came to his office because they wanted the official records of Mills County, Iowa, to show their title and ownership. They had sought to record their title papers with the Mills

County officials and were refused the right to have them recorded. They wanted to see if Mr. Gilliland could devise some way they could accomplish this result. Mr. Gilliland discussed the subject with Woodford Byington, County Attorney of Mills County. He told Byington he thought these people had a right to have their instruments recorded and at the same time could understand the perplexity of the county officials because the tract book in the County Recorder's Office didn't show any sections of land that were far enough west to include the land involved. There was the additional problem that section lines under Nebraska descriptions didn't coincide with the section lines on the Iowa side of the river and this involved the need to make a reconciliation. Gilliland suggested a law suit and told Byington he didn't think this would be the only time the problem would occur and that Byington would do well to take the matter up with the Attorney General and report what he had in mind.

The witness made a personal examination of the tract books in the County Auditor's office and determined there were no descriptions for the area. He prepared a Petition in Equity which was filed in the District Court of Mills County, Iowa, with the caption *William Watts, Mason Watts, Harvey Shipley, Margaret T. O'Brien, J. L. Jones, D. M. Babbitt, George T. Troop, and Mary Troop, plaintiffs v. Donald Strand, County Auditor of Mills County, Iowa; Hattie Brown, County Recorder of Mills County, Iowa; and Mills County, Iowa, defendants*. This Petition was filed on November 23, 1946, after Lewis Scott Robinson had left the County Auditor's office. The

Petition alleged that the Watts' title was derived through the case of *Shipley v. Hull* in the District Court of Cass County, Nebraska, that the Troops' title came through a deed from Harvey Shipley recorded in Cass County, that Margaret O'Brien's title came from a County Treasurer's tax deed dated January 3, 1945, from Cass County, Nebraska, and signed by Ruth Patton, County Treasurer, and that J. L. Jones and D. M. Babbitt's title came from an administrator's deed dated February 1, 1941, from Don H. Seiver and recorded in the Cass County Register of Deeds Office. Copies of the various instruments referred to were attached and the allegation is further made that, prior to the adoption of the boundary compact, the tracts of real estate described were located in Cass County, Nebraska, and that by said statutes the tracts of real estate, ". . . were transferred to, became a part of and now constitute a part of Mills County, Iowa." It was further alleged that uncertainty had arisen as to the manner and method of entry and indexing of said tracts of real estate upon the books of the defendant County Auditor and upon the tax books and records of Mills County, Iowa, and that the plaintiffs were entitled to have the tracts shown on the books and public records of Mills County in order that their ownership therein may be fully protected (Gilliland Deposition, Exhibit 1). Authenticated copies of the deeds and decrees were tendered for recording and the plaintiffs prayed that the County Auditor of Mills County be directed to enter the tracts of real estate upon the transfer and plat books and other public records in his office. They also prayed that the instruments be recorded in the office of the County Recorder and asked for general equitable

relief. An Answer was filed on behalf of the defendants on November 25, 1946, and signed by Woodford R. Byington, Attorney for Defendants and County Attorney for Mills County, Iowa. The Answer stated in part:

“3. For further answer to plaintiff’s petition, these defendants show the Court that by Chapter 306 of the 50th General Assembly of Iowa, which provisions were later enacted by the State of Nebraska and approved by the Congress of the United States, the boundary line between the states of Iowa and Nebraska was changed and by said change Mills County, Iowa, acquired land which is situated West of sections 17, 20, and 29 in Township 71 North, Range 43 West, in Mills County, Iowa, and which land at the time of the boundary survey on March 29, 1940, was situated East of Sections 4, 9, and 16 in Township 11 North, Range 14 East, in Cass County, Nebraska.

“4. These defendants admit that the plaintiffs, or at least some of them, have submitted deeds to be recorded in Mills County, Iowa, and that these defendants have failed and neglected to record such deeds for the reason that they did not know what legal descriptions could be given to this additional land useing (sic) Mills County designations and did not know the procedure in setting up of the plats and transfer records in their respective offices due to the fact that said land does not bear Mills County designations.

“5. These defendants further state to the Court that they have been advised by their attorney, Woodford R. Byington, County Attorney of Mills County, Iowa, that on May 6th, 1946, he wrote to the Attorney General of the State of Iowa, for an opinion as to the proper procedure in correctly describing this additional land for taxation purposes and in

setting up the necessary plats and transfer records and so far has not received any opinion.”

The decree of the District Court was filed on January 6, 1947, but stated that the matter came on for hearing on December 31, 1946, and the court found that the allegations and statements of the Petition were true and the plaintiffs were entitled to the relief prayed for. The court further found that William and Mason Watts, George T. Troop and Mary Troop, Margaret T. O'Brien, and J. L. Jones and D. M. Babbitt were the owners of the land and the clerk of the Court was ordered to file a copy of the plat attached to the Petition in the Plat Book and Index Book and any other book referred to in Chapter 558 of the Code of Iowa. It was further ordered that the plaintiffs were entitled to the recording of the instruments referred to in their Petition (Gilliland Deposition, Ex. 1).

Both the testimony and the statement by Mr. Byington in his Answer show that the Iowa Attorney General's Office had actual knowledge of the proceedings. However, the State of Iowa in Answers to Interrogatories in the case of *Iowa v. Babbitt*, Answer 22, said:

“ . . . Plaintiff was not a party to said action, had no notice or knowledge thereof and therefor is not bound by any decision rendered therein. . . .” (Ex. F attached to Complaint and Ex. P-2615).

Mr. Gilliland testified that the plaintiffs were actually physically in possession of the land in 1946 and that it was open and notorious. He testified that neither the plaintiffs nor he, as their attorney, had any idea

that the State of Iowa had any claim to Nottleman's Island in 1946.

The witness then testified that in 1950 a State Conservation employee living in Glenwood came to see him and told the witness that the State Conservation Commission had before it an application to purchase this land. The employee had been over at the Court House seeing what he could find out about the records and the county officers had referred him to Mr. Gilliland. A few days later, Mr. Gilliland was in Des Moines and talked to the Iowa Attorney General, Robert Larson, who is presently a member of the Iowa Supreme Court, about it. Mr. Gilliland told the Attorney General that somewhere in the Attorney General's files he could find the records of the case because Mr. Byington, County Attorney, had sent the pleadings and advised the Attorney General about the matter. Mr. Larson then suggested that the witness should write a letter to the Conservation Commission setting forth the situation. Then, on March 20, 1950, Mr. Gilliland sent a letter to the Iowa State Conservation Commission with copies to the Honorable Robert Larson, Attorney General of Iowa, Des Moines, Iowa, and copies to Mr. William Watts of Pacific Junction and the County Auditor, Glenwood, Iowa. This letter included the following language:

“Many years ago the main channel of the Missouri River ran east of this island. As a matter of fact, I do not know whether there was any channel on the west side. At that time and for many years the Courts of Nebraska exercised jurisdiction over the island. There was litigation over the ownership of the island and titles were established in the Courts

of Nebraska. Various portions of the island passed under the laws of inheritance and others were conveyed under Nebraska description from time to time. Taxes were paid to Cass County, Nebraska.

“You will recall that a very few years ago, the legislatures of the two states enacted statutes determining the boundary as the center of the then main channel of the river. The statutes were approved by act of Congress. At that time, the channel of the river had shifted to the west of the island and the island became a part of the State of Iowa. The owners of the property on the island encountered difficulty in having the description entered upon the books in Mills County, because they did not coincide with the Iowa descriptions. They employed an engineer to reconcile the descriptions. A friendly action was brought involving the County Auditor and County Recorder of Mills County, Iowa, and a direction made by the Court to enter the reconciled descriptions upon the records here. In my humble opinion the titles having been recognized under the laws of Nebraska previous to the acquisition of this island by the State of Iowa, we would be bound thereby and the then owners or their grantees would have good title to the land included in the island.

“I don’t think this is a case of occupying claimants. I think it is a case of straight-out ownership.” (Gilliland Deposition, Exhibit 2)

In Mr. Gilliland’s enclosure letter to the Attorney General of Iowa of March 20, 1950, he also stated:

“ . . . The claims of the owners and their grantors go back for many, many years and I think having been recognized by the courts of Nebraska, they are good. I thought perhaps you should be advised as to the situation because, we presume, that you are advisors to the Conservation Commission and we know you are to the State Executive Council. There-

fore we are sending you this letter copy." (Gilliland Deposition, Exhibit 3)

Reference has previously been made to Mr. Gilliland's testimony that he had personal knowledge of the existence of this island going back to about 1917.

Mr. Ray W. Beckman, age 64 of Watkins, Iowa, testified by deposition that he was with the Iowa State Conservation Commission continuously from July 1, 1937 until his resignation in 1958 or 1959. He started out as a Conservation Officer in the Lands and Water Division and after about a year and one-half was transferred as a Conservation Officer in the Fish and Game Division. In about 1944 or 1945 he became Conservation Officer Supervisor until 1948 when he was appointed Chief of the Fish and Game Division, serving in that capacity until his resignation. As Chief of the Fish and Game Division, he was responsible for carrying out or seeing that the functions of the Division were carried out which included all functions dealing with fish and game and law enforcement and all the lands that were under the supervision of the Fish and Game Department. During the year 1950, his immediate supervisor was the director, Bruce Stiles. Mr. Beckman remembered being handed a letter by Mr. Stiles which dealt with this matter and which Mr. Beckman answered. He remembered writing a letter dated April 19, 1950, addressed to Mr. Whitney Gilliland and a letter dated April 19, 1950, to William H. Mead of Percival, Iowa. The letter to Mr. Mead stated:

"Reference is made to your request to purchase an island from the State of Iowa located in the Missouri River in Mills County, Iowa.

“Please be advised that the island you referred to is not State property. The information we have is that this island belongs to four parties as follows:

Wm. Watts N. Babbitt

Margaret O’Brien Jones & Babbitt”

(Ex. P-478 and Gilliland Deposition Exhibit 5)

The letter was signed “Ray W. Beckman, Chief Division of Fish and Game.” The enclosure letter to Mr. Gilliland was offered as Exhibit P-477 and Gilliland Deposition, Exhibit 4. There was also an acknowledgment letter from the law firm of Gilliland and Thomas to Mr. Beckman dated April 21, 1950, expressing their appreciation for the information contained (Gilliland Deposition Exhibit 6) and the testimony was that the Wattses were informed of this by Mr. Gilliland (Gilliland Deposition Exhibit 7) and relied upon this information.

The Babbitt land was the subject of another law suit when the case of *Darwin Merritt Babbitt, plaintiff v. L. E. Edwards, R. W. Mansfield, and Warren Honeyman, as members of the County Board of Review of Mills County, Iowa, and Harry Markel, County Assessor, Mills County, Iowa, defendants* was filed in the District Court of Iowa in and for Mills County on June 8, 1961. The Petition alleged the Plaintiff was the owner of real estate in Mills County which had been assessed for taxation, but that the assessment was unjust and excessive and that the taxes should be lowered. This was Babbitt’s land on Nottleman Island. The defendants admitted the allegations of ownership by the plaintiff in an Answer filed by the Mills County Attorney on June 15, 1961. The court

entered a judgment and decree on November 30, 1961, in which it found:

“That the assessment of the real estate of the plaintiff, as contained in plaintiff’s Petition, was not illegal, excessive, unfair, unjust, or inequitable and is not contrary to law.”

The Petition was therefore dismissed. It was in this case that Mr. Jauron testified concerning the formation of the island and this testimony will be referred to elsewhere. Mrs. Dooley testified that the Shipleys inquired of the Iowa School District when they lived on Nottleman’s Island but were informed they could not send their children to school in Iowa. The children did go to school in Nebraska without having to pay tuition, and were enrolled as Nebraska residents.

Mr. Whitney Gilliland testified that, at the time he filed the case of *Watts v. Strand* in 1946, he made a search of the records in the Mills County Court House and found no indication that this land was then of record as being in Iowa. This was confirmed by the Auditor, Mr. Robinson. Following *Watts v. Strand*, the land was placed on the Iowa tax rolls and real property taxes have been levied by Mills County, Iowa, and have been paid by the owners on the property up until the present time. This is true notwithstanding the fact that the State of Iowa claims that it “owns” the land. This is established not only by the testimony, but also by the certified statement by the Mills County Treasurer showing taxes on the property from the original tax list for the years commencing with 1946 through 1966 (Ex. P-2623 and P-2218).

The specific areas are also shown on the Mills County Tax Plats prepared by the Nebraska State Surveyor (Ex. P-1673. The total taxes for that period on Nottleman Island were in excess of \$27,000 through 1966, and the evidence shows that the taxes on the property have been increased in recent years.

Defendant, in its Answers to Interrogatories in the case of *State of Iowa v. Babbitt*, Answer 18 objected to the question of collection of taxes on the land on the grounds it was irrelevant and immaterial to any issue in the case “. . . because any taxes which any of the defendants may have paid to plaintiff on the land involved in this case were infinitesimal. . .” Iowa also objected on grounds that this was an improper attempt to shift the burden of proof to Iowa and that Iowa should not be subjected to the burden of researching, investigating and proving the facts concerning said issue until some burden is cast upon the State by reason of pleading and proof.

In addition, the Treasurer of Mills County at various times sold some of the properties for taxes and they later had to be redeemed by the owners. The Troop land was sold for taxes on December 5, 1949 and redeemed by George Troop on December 31, 1949 (Ex. P-1664). The Babbitt land was sold for taxes on December 1, 1958 (Ex. P-600), December 7, 1960 (Ex. P-2613, Ex. P-484 & Ex. P-559), and December 30, 1965 (Ex. P-2614 and Ex. P-2492) and Babbitt was required to redeem the property and pay the taxes if he wanted to keep title. These actions by the County Treasurer were pursuant to the Code

of Iowa. Two of the published notices by the County Treasurer of the Delinquent Real Estate Tax List for Mills County, Iowa, which gave notice the treasurer would offer for sale lands in the county for delinquent taxes, cited Ch. 446.7 and 446.18 of the Code of Iowa (Ex. P-343 and P-510).

In the Assessment Rolls of the County Assessor sent out to Mr. Babbitt, the statement at the bottom indicates he may protest if not satisfied, “. . . such protest to be confined to the grounds specified in Section 441.37 Code of Iowa, 1962,” and references are made to the 1962 Code of Iowa on the back of the statement (Ex. P-2612).

In addition, on a Real Estate Assessment Roll for 1968 addressed to Babbitt from the Assessor, the back cites various acts of the Iowa statutes from the 1966 Code of Iowa including:

“Every inhabitant of this state shall list for the assessor all property subject to taxation in the state, of which he is the owner or has the control or management. Section 428.1.” (Ex. P-1800)

Other tax statements were offered showing payment of taxes (Ex. P-602, 604, 613, 614, 607), which apparently is no longer an issue and is accepted by all parties in this case.

Mr. Babbitt was also assessed by the County Treasurer of Mills County for taxes for a drainage district (Ex. P-603, P-605, and P-608).

The Sargent land, which was purchased from George Troop, was included within the Inventory in the Estate of Lee A. Sargent, deceased. These probate proceedings

were in the District Court of Iowa in and for Mills County, Iowa and the Final Report and Discharge was filed in 1958. The executors stated in their final report that the Estate was found by the order of the court to be subject to an Iowa inheritance tax and the inheritance tax had been paid and there was on file a receipt from the Iowa State Tax Commission Inheritance Tax Division. The real property of the decedent was described in the inventory and included the description of the Sargent land on Nottleman Island (Ex. P-1696).

The Watts' land on Nottleman Island was included within the Estate of John William Watts, deceased, probate No. 558 in the District Court of the State of Iowa in and for Mills County (Ex. P-1750). Bill Watts is shown as having died on August 7, 1964, and the real property schedule includes the Nottleman Island land as owned in joint tenancy with Albert Mason Watts. Bill Watts' $\frac{1}{2}$ share of the island land was appraised at \$10,000.00. There is also a receipt showing payment by Albert M. Watts, Administrator of the Estate of John William Watts, of inheritance taxes on the estate to the Iowa State Tax Commission. The Final Report filed by Albert M. Watts, states that John William Watts was the owner of an interest in the Nottleman Island property which was described in the report by metes and bounds, and the Court in its ORDER APPROVING FINAL REPORT filed October 10, 1967, found:

“ . . . And the Court having fully examined the report as filed and having heard the evidence finds that the said report is true and correct and that the same should be approved.”

Iowa's Traverse of Nottleman Island

In its Second Amendment to Plaintiff's Petition in the *Iowa v. Babbitt* case, Iowa described the area which it was claiming by metes and bounds (Ex. "H" attached to Complaint, Ex. P-1691). This is also referred to as the Windenburg Survey (Ex. P-740). The description purportedly follows along "the center of the designed channel of the Missouri River, said point being on the boundary line between the State of Iowa and the State of Nebraska, as established by the State of Iowa and Nebraska and approved by the 78th Congress in 1943. . ." It also runs along the "present ordinary high water line on the left bank of the abandoned channel of the Missouri River."

Interrogatory No. 249 by plaintiff to the defendant was offered:

"What is the physical feature, if any, which was followed by the State of Iowa in determining the easterly boundary of the tract as described in the second amendment to plaintiff's petition in the case of Iowa versus Babbitt?"

Answer by the the State of Iowa:

"The left bank, ordinary high water mark of the former channel which separated the island from the east bank of the Missouri River." (Vol. III, p. 411).

The Windenburg survey was dated 1/3/64 and the certificate states that Windenburg made the survey in August and September, 1963, which was after the law suit was filed by the State of Iowa against the landowners. Windenburg showed the "Island Division Line" running across the middle of the island and he did not identify the left bank line of the present Missouri River.

The Nebraska State Surveyor, Mr. Willis Brown, has numbered various stations from one through eleven along the eastern line of the Windenburg Survey (Ex. P-428). He testified to ground level photographs which he took along this eastern traverse which show the Windenburg traverse going through water, low swamp, and brush, and they point out that the Windenburg traverse does not follow any high bank or ordinary high water mark and there is no high bank in the near vicinity of the traverse. In some cases it goes across flat land and in others runs right through standing water (Exhibits P-417 through P-420 and P-423 through P-427).

On cross-examination of Mr. Brown, counsel for Iowa brought out that the field work on his checking of the Windenburg survey was done in May in 1965 whereas the Windenburg Plat says it was made in August and September of 1963. Mr. Brown admitted that in those two years there could have been some difference in the terrain in that east channel between the date of his checking and the date of the Windenburg survey. However, although Iowa may argue that there may have been some difference in the physical features on the ground between 1964 and 1966, their witness, Professor Ruhe, seems to think that banks and scarps will remain for sixty to eighty years in the Schemmel area.

The Windenburg survey is not accurate on the west side of Nottleman Island either and cannot be substantiated by Iowa's own expert witness. Mr. Brown prepared a plat showing the State Line according to the Compact compared to Mr. Windenburg's line around the west side of Nottleman's Island, and Iowa's expert, Mr.

R. J. Lubsen, made his determination of the State Line for comparison (Ex. P-746). Professor Lubsen's drawing was dated November, 1965. Professor Lubsen's State Line coincided with that of Mr. Willis Brown for a considerable distance from the north end of the island going downstream until approximately the lower one-fourth of the island where his line departs from the Nebraska State Surveyor's line and goes further east. The maximum amount of departure is approximately 150 feet at the point close to the termination of trail dike 626.8-A which extends out into the channel on the Nebraska side. Mr. Brown testified that this feature requires a surveyor to make a judgment decision whether he should use the trail dike to determine the bank line or whether he should use the revetment line. He testified this would differ from surveyor to surveyor, as it did in this case. The Windenburg line, upon which Iowa's quiet title action in the case of *Iowa v. Babbitt* is based, is about 50 feet to the west of Mr. Brown's line and, at the south end of the island is a maximum of approximately 230 feet west of Professor Lubsen's State Line. Mr. Brown testified that he felt his survey of the State Boundary was true, and he had not seen anything to change his opinion. He admitted that Professor Lubsen certainly had grounds for his position and, in his opinion, there is some justification for the Lubsen line and some justification for the Nebraska State Surveyor's line, but the Windenburg line is clearly in error to the extent of approximately 50 feet and on the south end it is even further off. Mr. Brown did testify that he did not know what maps the Corps may have given Mr. Windenburg to make

his determination. However, suffice it to say that both the Lubsen and Brown testimony show that Iowa is encroaching approximately 50 feet into Nebraska for the major portion of the traverse around the west side of Nottleman Island.

Mr. Lubsen also testified that he did not find out when the designed channel was actually designed. The surveys and testimony point out a distinct problem in ascertaining the State Line from the information contained in the Iowa-Nebraska Boundary Compact.

THE SCHEMMEL ISLAND AREA

On March 26, 1963, the State of Iowa filed a Petition in the District Court of Iowa in and for Fremont County captioned "*State of Iowa, Plaintiff v. Henry E. Schemmel, et al., Defendants*". A copy of the Petition is attached to the Complaint and marked Exhibit "L" and also offered as Ex. P-2615. In its Petition in Equity, Iowa again alleged simply that it was the absolute and unqualified owner in fee simple of the real estate described and some of the defendants make claim to the real estate but that "... all said claims are wholly without right". No further grounds for Iowa's claim were stated. Iowa prayed that its title be quieted in the real estate. The Petition was signed by Michael Murray with the names Evan Hultman, Attorney General of Iowa, and William J. Yost, Assistant Attorney General of Iowa, also appearing on the Petition. The metes and bounds description in the Petition purportedly followed the "ordinary high water line on the east bank of the abandoned channel of the Missouri River" on the east side and the western boun-

dary was supposedly "... to the Iowa-Nebraska boundary as established by the States of Iowa and Nebraska and approved by the 78th Congress in 1943, thence along said boundary . . .".

The Schemmels and Mary Leah Persons, who is the daughter of Henry Schemmel, answered the Petition and alleged that plaintiff's claim was contrary to, and in violation of, the Iowa-Nebraska boundary pact of 1943 in that it failed to recognize and give effect to defendants' title and rights to the said land under Nebraska law. Other defenses were alleged and the defendants counter-claimed and asked that title be quieted in them (Ex. "M" & "N" attached to Complaint, Ex. P-2615). Iowa then filed a reply and denied that the land was in any manner affected by the Iowa-Nebraska boundary pact of 1943. It also denied that the land was ever located within the State of Nebraska and alleged that the Iowa-Nebraska boundary pact had no effect and did not change the ownership of said land or the sovereignty of the State of Iowa over it. Iowa further admitted that, for the purposes of that case, the defendants and their predecessors in interest were the riparian owners of land bordering on the main channel of the Missouri River on the west or Nebraska side, but alleged that ownership of said lands on the west or Nebraska side was irrelevant and immaterial because the land did not form as accretions to said Nebraska lands or as accretions to that part of the bed of the river which was in Nebraska. Iowa alleged that the land in controversy formed as an island upon and over that part of the bed of the Missouri River which lay within the State of Iowa at the time of such forma-

tion (Ex. "O" attached to Complaint, Ex. P-2615).

The trial of the case of *Iowa v. Schemmel* was commenced in Fremont County, Iowa, in 1964 and Mr. Michael Murray, Counsel for the State of Iowa, in his opening statement said that Iowa expected to prove the area came into existence as an identifiable piece of land traced to some date commencing in the 1930's and probably before 1936. He said when it came into existence it started as a sand bar not attached to either bank and that it was continuously thereafter not attached to either bank until about 1960 when the Corps of Engineers installed a "channel closure" closing the channel which ran down the east side. He then stated that, regardless of the exact date of the commencement of formation of the land, the thalweg was west of it and:

"We expect the Court will be satisfied that there was no avulsion to cause the state boundary line to be any place other than the thalweg in this particular area.

"In the first instance, we are simply going to rely on a presumption concerning avulsions. Perhaps the Court is acquainted with the fact that one claiming an avulsion has the burden of proving; and therefore, we will have no proof except incidental proof that there was no avulsion in the first instance, being our intention to rely on the presumption in the first instance, at least." (Ex. P-1658)

Mr. Murray then stated that he intended to trace the area back into the 1920's, demonstrating that there was no identifiable piece of land which could be traced back to the 20's. The witness, Jauron, testified upon cross-examination in this case that Iowa called only two wit-

nesses in *Iowa v. Schemmel* before they rested, namely Mr. Windenburg, the surveyor who made the traverse around the Schemmel area, and Mr. Raymond Huber, formerly of the Corps of Engineers, who also testified in this case. Iowa then rested and left the entire burden of showing the history of the land upon the defendants. They did this apparently knowing that the Corps of Engineers had dug a canal in Nebraska during the time that they were moving the channel into its design. The State of Iowa also ignored all of the previous early history of movements of the river in this area and left the defendants with the difficult burden of attempting to prove an avulsion many years after the event.

For purposes of identification, the Schemmel area, Otoe Bend area, or the area enclosed by the Windenburg traverse was identified on the Nebraska tax rolls as a part of Sections 29, 30, 31 and 32 in T. 8 N., R. 15 E. and Section 5 in T. 7 N., R. 15 E. of the 6th P. M. Otoe County, Nebraska. This same area identified from the 5th P. M. would be a part of Sections 10, 14, 15, 22 and 23 in T. 67 N., R. 43 W. of the 5th P. M. Fremont County, Iowa. Measured along the road the Schemmels take into their property, which is along the section line common to Iowa Sections 10 and 15, 11 and 14, and 12 and 13, the area is approximately one-quarter mile west of the northwest corner of Section 14. South of that point, the area extends eastward into Section 14 approximately a quarter of a mile, which would be at least three quarters of a mile west of the section line common to Iowa Sections 13 and 14. This area is on the east or left side of the present Missouri River. It is five miles down-

stream from the Nebraska City bridge. The lower or southern end of the area is one-fourth of a mile north of Hamburg Landing which is four and one-half miles west of Hamburg, Iowa. The upper portion of the area is one and one-half miles west of the improvements on the Propp farm, the old agricultural or John Payne levee, and the improved road south of Payne. The Iowa Chute is one and four-tenths of a mile east of the area measured along the section line between Sections 10 and 15, 11 and 14, and 12 and 13.

The Givens farm buildings are four-tenths of a mile north of the Iowa Chute measured along the section line between Sections 11 and 12, T. 67 N., R. 43 W. and are one-fourth of a mile west and three-fourths of a mile north of the Propp buildings.

The area is three-fourths of a mile west of the Schwake Chute measured along the section line between Sections 10 and 15, and 11 and 14, T. 67 N., R. 43 W.

The lower tip of the area is two miles east and two-thirds of a mile north of the old town of Minersville, Nebraska. The central portion of the area is directly east and across the river from the Yearsley farm, which is on the Nebraska side.

For further purposes of reference, attached hereto and marked Appendix B is a reduced photographic reproduction of a portion of Ex. P-1036 which is the 1946-1947 Corps of Engineer tri-color map of the Schemmel Island area. The Windenburg traverse is not reproduced on this map but it extends downstream to include all of dike 600.1 and 600.1-A and to within one-quarter of a

mile from the Hamburg Landing Road which is along the section lines between Iowa Sections 23 and 26. The water areas are not depicted exactly as they appear today. The Iowa Chute and Propp and Givens buildings were marked by witnesses. Ex. P-1036 also had the Schwake Chute and Old Levee identified but those markings did not reproduce very clearly on Appendix B.

The historical evidence shows that at the time the states were admitted into the Union, the Missouri River in the Schemmel Island area was located at approximately where the present west one-third of the Schemmel land is found today. From the time Nebraska was admitted into the Union, the river commenced to work easterly and erode away land on the Iowa side. By 1895, the river flowed in a pronounced easterly developed bend and in 1900 at its most easterly point was about two miles east of the present location of the Missouri River, and the main channel of the Missouri River was then located where the Iowa Chute is found today. Between 1900 and 1905 a cut-off of the Missouri River occurred in the bend and the river thereafter flowed in a channel over a mile to the west. The river never again worked its way as far east as the Iowa Chute but there was at least one additional natural cut-off to the west within the bend; and in the 1930's, the United States Army Corps of Engineers placed the river in the designed channel, where it is presently located, by the construction of dikes and revetments and by the dredging of the Otoe Bend Canal in Nebraska. Each of these sudden movements did not wash away the intervening land as the river moved or was moved to the west. However, as in the Nottleman

Island area, regardless of how the Schemmel land formed, it was always considered to be a part of Nebraska until ceded to Iowa by the Compact.

Early History of the River in the Schemmel Island Area

The early maps of the Schemmel area were introduced along with the testimony of the Nebraska State Surveyor, Mr. Willis Brown, who prepared transparent mylar overlays of the various maps and the Windenburg traverse to the same scale so that comparisons could be made. The Iowa side of the Missouri River was first surveyed by the Surveyor General's office in 1846 and 1847 and an almost identical survey was executed by the Surveyor General in 1852. These surveys showed no islands surveyed as Iowa land in the Missouri River (Ex. P-202, P-203, and P-204). The Nebraska original government survey was made in 1856 and showed an island on the Nebraska side of the river surveyed as a part of Nebraska Sections 19 and 30, Township 8 North, Range XV East of the Sixth Principal Meridian (Ex. P-205 and P-206). The Hopkins and Haddock tie survey was dated December 31, 1858, and is a connection or tie survey for the Federal Government. This also shows one island in Nebraska with the river going around the east side of that island and some water on the west side. The island has section numbers which are common to the 6th Principal Meridian in Nebraska. If patents are obtained on land that is included within original government surveys, these patents show the section numbers of those original government surveys and would be filed in the state to which they relate. The tie survey gives the relationship

between the original Iowa and Nebraska surveys. The Iowa bank on the tie survey in some places is considerably different from the bank as it appeared on the original government survey. This tie survey also illustrates how the section lines, when extended, do not coincide between the two states.

The Nebraska State Surveyor prepared a mylar overlay of the original government survey of Iowa and original government survey of Nebraska, tied together by the measurements of the tie survey (Ex. P-208). The 1856 island was patented in Nebraska and later became referred to as Frazier's Island or Frazer's Island on the 1879 and 1890 maps and in reports of the Corps of Engineers. Certified copies of patents to some of the land on Frazier's Island were introduced with index plats (Ex. P-1614 through P-1617). The southeastern part of the original Frazier's Island overlaps the northwest part of the Windenburg traverse.

At the time of the original government surveys, the Missouri River was located in approximately the same location as the present west one-third of the Schemmel land today. From Mr. Brown's testimony, it also appeared that the river had moved to the east in the time between the 1856 original government survey and the 1858 government tie survey.

In the Annual Reports of the Corps of Engineers, there is a MAP OF THE MISSOURI RIVER IN THE VICINITY OF NEBRASKA CITY, NEB. from surveys made under the direction of Major Charles R. Suter, Corps of Engineers, U. S. A., in December, 1876, and

January, 1877. This map shows "Frazier's Island" as attached to the Nebraska shore and the river has a distinct bend to the east around that area with a considerable amount of accretion shown as attached to Nebraska (Ex. P-370). There is no indication of water to the west of the island on the map. This map also has a designation for Nebraska City and Eastport.

The Corps of Engineers surveyed the area from July 2 to August 7, 1879, and the words "Frazier's Island" are written on the accretion land on the Nebraska side of the river. The river has a distinct bend around the east side of "Frazier's Island" and the Corps of Engineers mile designation 604.4 is written nearly opposite the words "Payne's Ldg." which is right along the Iowa bank. Sidney Ldg. is shown at mile No. 602.2. This map shows an easterly developed bend with Frazier's Island part of the Nebraska bank or shore and at the lower part of the bend the river flows westerly towards Otoe City or Minersville, Nebraska. A little south of this area, McKissock's Island is shown and mention is made of the "Peru Cut-off 1865" and on the Nebraska side is Hog Thief Island. North of the area, Nebraska City Island is shown with a chute running around the west side and the words "EASTPORT BEND" on the east side and mile No. 610 is shown in the river around the east side of Eastport Bend (Ex. P-209). In the 1876-1877 Corps map (Ex. P-370), the river also went around the east or left side of Nebraska City Island.

The Nebraska State Surveyor made an overlay of the 1879 Corps map of the Otoe Bend area (Ex. P-210). In comparing this overlay with the original government

surveys (Ex. P-208) they show the river had moved east into Iowa Section 15 approximately one-half mile and in Iowa Section 10 it had moved east between a quarter and one-half mile. The area designated as Frazier's Island is joined to the mainland and includes almost all of the original island surveyed in Nebraska. When this overlay of the 1879 survey is placed on the 1946-1947 Corps of Engineers tri-color map (Ex. P-2683), the river is shown as running right through the greater central portion of what is later to be the Schemmel land.

The Reports of the Missouri River Commission from July 1, 1885, to June 30, 1887, which are a part of the Annual Report of the Chief of Engineers for 1887, have a very significant map which is entitled "Map of the Missouri River in the Vicinity of Nebraska City, Neb. made under the direction of the Missouri River Commission in December 1886." (Ex. P-371). This map shows the area south of Nebraska City and shows the river having cut away 1002 acres along the left or east bank in the vicinity of Schemmel Island from the years 1879 to 1886. The reference is made "Cut M to N, 1879-1886, 1002 acres" and the letters M and N have been circled and the line traced in red by Mr. Willis Brown. Attached to, and a part of, Exhibit P-371 is a copy of a portion of Exhibit P-371 upon which Mr. Brown has placed the traverse of Schemmel Island, and all of Schemmel Island except a very small part at the southern tip is to the west of this line drawn from M to N (Ex. P-2627). Mr. Brown has also placed on Exhibit P-2627 the 1895 Pierce right bank survey which will be referred to, and Schemmel Island is on the right bank. The 1879, 1882, and 1886 bank

lines are all shown on this map and it can be seen that the bend is moving towards the east and downstream.

Exhibit P-371 also shows Nebraska City Island just across from Nebraska City and shows water running around both sides of the island with the major portion to the west along the Nebraska City waterfront.

The Road Plat Book of Fremont County, Iowa (Ex. P-172), compiled by H. F. Gagnebin, County Surveyor, found in the Fremont County Auditor's Office shows the original bank line of the Missouri River in 1852 and shows the Meander of December, 1884. This line goes through Iowa Section 14 just west of the center line. Then to the east of that is shown "MESUREMENT 1888" and that curved line touches the line common to Iowa Sections 13 and 14. This map also shows the progressive easterly development of the river from the 1852 map to the Meander of December, 1884, to the "MESUREMENT 1888" but it still places the river to the west of the Iowa Chute.

The Missouri River Commission survey of 1890, published in 1893, also identifies "Frazers Isl." as part of the Nebraska shore and shows an easterly developed bend. Although this series of maps shows topography in considerable detail, *there is no marking on this map showing any topographic feature in the position of the Iowa Chute* (Ex. P-211). Mr. Brown testified that the left or east bank of the Missouri River is "just a mile west of the Payne School". The 1890 survey shows the river along the Nebraska bluff in the Eastport Bend area with "Nebraska City Isl." identified as now being on the east-

ern or left bank of the river and the word “(Abandoned)” under the words “U. S. Boatyard” in Eastport Bend. There is also the “Old Bed of Missouri River” shown on the east side of McKissock Island south of the Schemmel area. Cut-off areas are thus shown in what had been easterly developed bends both above and below the Schemmel bend. When the mylar overlay of the 1890 Missouri River Commission map (Ex. P-212) is placed over the 1879 Corps survey overlay (Ex. P-210) the left bank has moved eastward on the line between Iowa Sections 11 and 14 a distance of approximately 5,000 feet. Sidney Landing has also moved to the east as shown on the 1890 map. Right along the left bank of the 1890 map (Ex. P-211) is written the word “Foster”.

When the Windenburg traverse of Schemmel Island (Ex. P-233) is placed upon the 1890 map (Ex. P-212), the major portion of the traverse of Schemmel Island is on an area indicated on the 1890 map as land on the Nebraska side of the river identified as Frazer Island, and there is a chute down through the western one-third of the traversed area.

The Plat of Washington Township in Fremont County, Iowa, taken from the “Plat Book of Fremont County, Iowa, Drawn from actual Surveys & County Records by the North West Publishing Co., 1891” shows the river line as shown by the 1851 government survey with the left bank of the river considerably to the east of that line and running diagonally from about the northwest corner of the section through the center to the southeast corner of Iowa Section 11 and extending into the western part of land identified as the John Foster 80 which is the west

half of the northwest quarter of Iowa Section 13. The river is still west of the location of the Iowa Chute. Payne School No. 9 is shown and circled in red as being at the southwest corner of Iowa Section 7, Township 42 North, Range 67 West and is right next to the railroad tracks between the railroad tracks and the section corner common to Sections 7, 12, 13 and 18 (Ex. P-372).

The Otoe County Plat Book in the Office of the County Clerk of Otoe County, Nebraska, has plats of a survey made in 1895 along the Missouri River (Ex. P-137). This is commonly known as the Pierce Survey and some of these plats show the "Missouri River in 1895". Pierce was the County Surveyor of Otoe County at that time. The Pierce Survey shows acreages and locates the land by lot numbers. Mr. Willis Brown testified that the plats showed the acreages divided to 100ths of an acre and that this survey was apparently quite accurate.

The Nebraska State Surveyor prepared a mylar overlay of the 1895 Pierce Survey where it ran through Nebraska Sections 28, 29, 30, 32, 33, 5 and 6 as shown in the Plat Book in the Otoe County Clerk's Office (Ex. P-213). This survey did not show the left bank but only showed the Nebraska bank or right bank of the Missouri River. When the 1895 Pierce Survey (Ex. P-213) is placed upon the 1890 Missouri River Commission Survey (Ex. P-212), the right bank of the Missouri River is now located in bar area which had been along the left bank of the 1890 survey. The right bank has moved considerably to the east and is now touching what was marked as "Sidney Ldg." on the 1890 map. When the overlay of the Schemmel land (Ex. P-231) is placed upon

the 1895 Pierce Survey (Ex. P-213), almost all of the Schemmel area appears on the right bank, except at the very southern tip of the traverse. The Windenburg traverse falls in Nebraska Sections 29, 30, 31, 32 and 5. The east side of the traverse is about 2,500 feet west of the right bank line of the Pierce Survey of 1895 measuring along the center line of Nebraska Sections 32 and 33. This same Pierce Survey line appears upon the Iowa survey of Mr. Windenburg (Ex. P-237).

An article from the *Nebraska City News* of April 16, 1897, captioned "The Water at Hamburg" further documents the location of the river in the late 1890's. This article includes the statement:

"The Missouri river commenced to rise on Sunday night, April 11. About four miles northwest of Hamburg, near the railroad, is the Payne school house. *The river is three-quarters of a mile west of the road at this point.* The bottom lands in that vicinity have been heretofore protected by the so-called John Payne levee, though Mr. Payne has moved to the uplands of Nebraska. On Monday afternoon the levee broke and the water swept over the bottom and the railroad a mile wide . . ." (Ex. P-200). (Emphasis supplied.)

Mr. Brown testified that the 1890 Missouri River Commission map (Ex. P-211) showed that it was one mile from Payne School to the left bank of the Missouri River so the river must have moved a quarter of a mile to the east between 1890 and 1897. The index map to Ex. P-200 shows the location of the Payne School House four miles from Hamburg, and shows the Iowa Chute is located almost exactly three-quarters of a mile west of that school

house measuring along the road between Iowa Sections 12 and 13.

This Iowa Chute has been referred to by several witnesses and appears as a physical feature upon almost all of the later Corps of Engineer maps which extend that far east. The Iowa Chute is in the shape of an easterly bend and the testimony of Frank Duncan places the Missouri River in the location of the Iowa Chute in 1899. Mr. Duncan testified by deposition that he was born on November 27, 1892, about two and a half miles north of Payne Junction and he lived around Payne Junction in Fremont County, Iowa, for 34 years. His family lived on the Mose Givens place commencing in 1896. A sister of Mr. Duncan was born on the Mose Givens place in November of 1898. The Mose Givens place is on the west side of the road in Iowa Section 11 north of the Albert Propp place. Mr. Duncan testified that there is now a house at the same location, but it is not the same house. The witness identified the location of two houses in which he lived on the Givens' place upon a photograph (Plaintiff's Exhibit D-1). In 1896 and 1897 they lived in the south house and then they moved to a smaller house along the railroad tracks and were there for two years. Mr. Duncan testified that the Missouri River was in the old river bed which was right straight south along the road that went in front of his house. When the road got to the river it ran at an angle to the southeast. The road today isn't exactly where it was at that time, but it is very close to the same location. The witness saw the first boat which he ever saw in his life come up the Missouri River from the southeast headed on an angle to

the northwest until it came up "and then it took up pretty near west". This boat had a paddle wheel in the back and had a work barge ahead of it. Mr. Brown drove a stake where the witness testified he stood when he saw the boat and plaintiff's Exhibit D-2 is a picture of the witness and Mr. Brown, showing the stake. The boat that was seen by the witness came within 50 feet of where they were standing in the picture and was close to the bank. In the vicinity where the picture was taken, you can see the old river bed which is part of what is now called the Iowa Chute. The Givens' road runs north from the place where the picture was taken to the Givens' house. The brush in the picture marks the old river bed and the witness identified this brush with "A" and he also identified the stake with a "B".

The witness saw the steamboat coming up the river in 1899, and he was looking south. It came to his left up around the river and there is a bend right there and then it turned and went west and they watched it until it was pretty near out of sight. He repeated that the boat came within fifty feet of where he was standing and that is the spot shown in Plaintiff's Exhibit D-2.

Mr. Willis Brown also located a stake at the spot designated by Mr. Duncan on a copy of a portion of the 1946-1947 Corps of Engineers tri-color map with a red X and to the left of it printed in red is "Duncan re-bar". This X appears right where the road came south from the Givens' place and then angles off towards the southeast toward the Propp farm (Ex. P-2277). The photograph (Plaintiff's Exhibit D-2) which Mr. Duncan marked show-

ing where the boat went as it traveled upstream would be facing about northwest and shows the present Iowa Chute.

Mr. Cliff Cockerham, of Hamburg, Iowa, born 1892, testified by deposition that, when he was one year old, the family moved east of the Albert Propp farm about a quarter of a mile on the north side of the road. When he was about nine or ten years old, his family built a house up by Mose Givens and he moved there. From 1893 until 1912 when the witness was married, he lived within one-half mile of Albert Propp's place. Mr. Cockerham testified that at one time the Missouri River was located about 300 yards west of Propp's house and the old bed is there and they call it the Iowa Chute. In about 1900, he saw a boat in the Missouri River in the Iowa Chute 200 or 300 yards west of Propp's. This was in the spring and the boat was 30 or 40 feet long and had a paddle wheel on the back and was tied up to the east bank of the Missouri River west of Propp's. Quite a few people saw it there and it stayed overnight. At the time he saw the boat, he thought the Iowa Chute was mostly the Missouri River and the Missouri River today is west of where it was then. The witness testified the water stayed in the Iowa Chute several years and while the river was farther west there still was water running in the Iowa Chute. He testified that Frank Duncan lived in a house up by the railroad on Mose Givens' place just north of Propp's. John Foster had land just west of Propp's and most of it got cut into the Missouri River. Part of it was on "this side" east of the Iowa Chute and the rest of it out there got cut in. When the witness was

a small boy, there was a levee along the river where Propp's farm is today called the John Payne Levee and he recalls no levee west of there up through the 1920's. When the witness saw the boat in 1900, it was not during flood time.

Mr. Cal Taylor, of Hamburg, Iowa, born November 7, 1878, testified by deposition that he was born on McKissock's Island (Nebraska) just south of Hamburg, Iowa. He testified that he recalled when the Missouri River was west of where Albert Propp lives today. He testified it wasn't too far west of Albert Propp's house and he was there with Mr. Willis Brown and Mr. Brown drove a stake on what the witness identified as the east bank of the Missouri River. He said it was a good body of flowing water and they called it the Missouri River. He saw it there when he was "just a good sized boy" but he couldn't remember exactly how old he was when the Missouri River was there. In those days, the Missouri River was there during normal water. The witness knew Mr. Cliff Cockerham and testified Mr. Cockerham lived on the north side of the road and not too far east of Propp. On redirect examination, Mr. Taylor testified that at the time he was a fair sized boy and the river was right there west of Propp and the bank was where Mr. Brown drove the stake, that was the main channel of the river at that time. This "Taylor re-bar" also appears on Exhibit P-2277 and is located right along the Iowa Chute just west of the Propp farm. The stake is on the east bank of the Iowa Chute.

Measuring straight west along the north line of Iowa Sections 13, 14 and 15, which is the road the Schemmels

take into their property, it is today approximately 10,200 feet to the east bank of the designed channel of the Missouri River from the Iowa Chute.

All of the maps previously referred to with reference to the Schemmel area have shown the river moving progressively eastward with a large bend developing. Then in 1905 a survey was made by the United States Department of the Interior Geological Survey which, for the first time since the original government survey shows the river back to the west (Ex. P-214). This map purportedly shows a dashed line which is identified as the state boundary line but, as in the 1920 soil survey with reference to Nettleman Island, the map was just offered to show the location of the river and not the location of any boundary as the Geological Survey was not competent to make this legal determination. This map does not extend far enough east to show where the Iowa Chute would be. The mylar overlay of the 1905 U. S. Department of the Interior Geological Survey Map (Ex. P-215), when placed upon the 1890 Corps of Engineer Map (Ex. P-212), shows the river running through what was a part of Frazier's Island on the 1890 map. The 1905 channel appears to be in the approximate location of the 1890 slough on the Nebraska side through the Frazier's Island Bend. The 1905 left bank is approximately 6,200 feet west of the Iowa Chute when measured along the section line between Sections 11 and 14, as shown by placing the overlay of the Alluvial Plain map (Ex. P-231) under the overlay of the 1905 map (Ex. P-215). This means that the left bank of the Missouri River in 1905 was more than a mile to the west of the location of the

Iowa Chute along the east-west road which the Schemmels take into their property. When the 1905 survey (Ex. P-215) is compared with the mylar copy of the 1895 Pierce Survey (Ex. P-213), the 1905 right bank runs through the center of Nebraska Section 30 and the eastern portion of Sections 31 and 6 as shown on the 1895 Pierce Survey, and in 1905 the right bank of the river is approximately a mile and a quarter west of the 1895 right bank measured east and west through the center of Section 32. Consequently, by 1905, the Missouri River had moved about one and one-quarter miles west of where it had been located in 1900 in the Iowa Chute.

Geological Analysis of the 1900-1905 Avulsion and Physical Evidence of 1895 Tree

Dr. William N. Gilliland, age 49, of Newark, New Jersey, testified as plaintiff's geology expert. Dr. Gilliland began the study of geology in 1937 and received his Bachelors Degree from Ohio State University in 1941. Following World War II, he received a Ph. D. in Geology in 1948 from Ohio State University. He studied the normal courses in geology including such subjects as physical geology, historical geology, mineralogy, petrology, sedimentation, paleogeology, geomorphology, and structural geology. For a year after 1948 he worked with the U. S. Geological Survey mapping alluvial and precrustacean sediments in western Nevada which involved mapping several streams. Following his work with the Geological Survey, he went to the University of Nebraska and was there until 1965. For fourteen or fifteen years during the time he was at the University

of Nebraska, he was Chairman of the Geology Department. At the University of Nebraska, he taught physical geology, historical geology, engineering geology, structural geology, and he did a great deal of research and a considerable amount of consulting work. In 1965 he left the University of Nebraska and went to Rutgers University as Dean of the College of Arts and Sciences and Professor of Geology.

Dr. Gilliland testified that the study of characteristics and the behavior of meandering streams is fundamental in the training of all geologists and he had extensive training in the behavior of rivers as a student. Also, while teaching geology, he taught the nature and characteristics of streams as a basic elementary part of any geologist's training. He is a fellow in the Geological Society of America, a member of the American Association of Petroleum Geologists and a certified professional geologist with the American Institute of Professional Geologists. To obtain the latter certificate involves a critical examination of the person's training, experience and ethics and, of the 40,000 or 50,000 practicing geologists, there are less than 2,000 certified professional geologists.

Dr. Gilliland testified that the Missouri River is a meandering stream and all meandering streams have certain common behavior patterns and certain principles apply in this behavior. He prepared exhibits to show successive stages in the development and behavior of meandering streams from an experimental standpoint, a numerical standpoint, and an historical standpoint. Dr. Gilliland illustrated by his testimony and photographs

and slides the development of a meander pattern of alluvial streams (Ex. P-1590 through P-1602). Some of these photographs were taken by the Corps of Engineers of the U. S. Army in connection with their experiments. They showed how meanders develop and enlarge and move downstream (Ex. P-1599, P-1591 and P-1596). Areas of deposition appear on the inside of the curve which are residues called point bars and are frequently characterized by elongated depressions called chutes. There is erosion on the outside of the curve and deposition on the inside of the meander.

Illustrations from elementary geology texts also showed the same development as was shown by the Corps of Engineer experiments (Ex. P-1593, P-1594, P-1595, P-1597 & P-1598). There is a concentration of maximum velocity on the deep outer part of the bend as well as maximum turbulence on the outside of the bend (Ex. P-1593). On the inner part of the bend the water is shallower and there is low velocity and turbulence. Dr. Gilliland testified that it is a widely held concept in basic geology that erosion occurs on the outside of bends and deposition occurs on the inside of bends because the velocity and greater turbulence is concentrated on the outside of the bends (Ex. P-1595). Also, across the point bars there are frequently and commonly depressions called chutes. He illustrated how material is eroded from the outside of the bend and transported to the inside of the next bend downstream and deposited there. At the outside of that downstream bend, erosion is caused by the concentration of the greater velocity and greater turbulence of the water and that sand will be deposited on the

inside of the next bend downstream (Ex. P-1597).

The process of the enlargement of the meander downstream and shifting of the meander is known to continue until a portion of the meander is abandoned. This happens in one of two ways. As the uppermost curve erodes on the outside of the curve, a portion of the river may approach and literally cut through the narrow restricted portion of what is called the point bar, diverting the stream from around the long path to a shorter path directly across the point bar or neck. A neck cut-off is where the streams actually approach and finally merge. A chute cut-off is where the stream cuts across a point bar suddenly.

The witness explained by way of an oblique aerial photograph taken from a geology text book *Basic Concepts of Physical Geology* that, in the point bar, you can see many ridges and intervening depressions (Ex. P-1592). During the time of high water, perhaps in a flood stage, the river will in many cases take a shorter path than the meander path and cut directly across the point bar because, since the distance is less, you have a steeper gradient and because of the steeper gradient, water will flow faster and thus be able to erode more readily across the point bar (Ex. P-1592). The Exhibit has the following caption: "*Chute cutoff*. A chute cutoff has formed at the left, cutting back of the bar deposits laid down on the inside of the meander. The cutoff has shortened the stream considerably."

The witness also used illustrations from *Fluvial Processes in Geomorphology* to show a steep bank on the

outside or eroding portion of the curve and a gently sloping point bar on the inside of the curve (Ex. P-1599 and P-1600). He used another historical record of a portion of the Mississippi River from a geology text entitled *Geology, Principles and Processes* showing successive positions of the river from maps of various dates and a cut-off of the point bar occupying the inside of the meander. The area shown is called "Moss Island" and shows a "Cutoff of 1821" (Ex. P-1602). This illustrates that from an historical standpoint it is possible to recognize progressive or successive positions of a river and its history.

The witness testified that these principles apply to the Missouri River. He made a study of the Missouri River in the vicinity of Otoe Bend referred to as Otoe Bend Island or Schemmel's Island. In making this study he visited the area on a number of occasions, observed the topography of the area adjacent to the river, noted the configuration of the river, and compared the area with current maps and older maps using existing maps and ancient maps. He did not take any soil samples because he felt that soil samples were irrelevant in tracing the successive positions of the river. He studied maps dated 1852, 1856, 1858, 1879, 1884, 1890, 1895, 1905, 1923, 1940, 1946 and 1947. In order to understand the historical development of the river in that area, he requested the Nebraska State Surveyor to extract from the several maps certain data, principally the several bank lines of both the right bank and left bank, in order to see the direction in which the river was shifting.

A map was presented showing successive positions of the left bank of the river in the vicinity of Otoe Bend in the years 1852, 1879, 1884 and 1890 and the witness checked these locations against the original maps and found them to be accurate (Ex. P-2423). This exhibit indicated that the bend existing in this portion of the river in 1852 behaved as meanders typically do by shifting eastward and downstream. In 1879 the left bank of the river, or the Iowa bank, had shifted towards the east. In 1884 the position was farther east, and in 1890 the left bank had shifted some more, consistent with the illustrations indicating the outward migration of a meander.

The witness also identified a map showing successive positions of the right or Nebraska bank in the years 1852, 1879, 1890, and 1895 (Ex. P-2422). When the Windenburg traverse of Schemmel Island (Ex. P-233) is placed upon Exhibit P-2422, it is almost entirely within the point bar as it existed in 1895. Dr. Gilliland, from his studies of the characteristics of a meandering river and from the principles which he described, and from the studies of the Otoe Bend area and his investigation of the topography, was able to form an opinion based upon reasonable geological certainty as to the manner in which the river moved from 1856 to 1890 in the areas shown on Exhibits P-2422 and P-2423; and his opinion is “. . . that the Missouri River in this particular area moved in the same fashion that typical meandering streams move, basically by erosion on the outer portion of the meander causing a shifting of the meander towards the outside with simultaneous deposition on the inside of the bend on the point bar.” (Vol. XI, p. 1554).

Dr. Gilliland then used a mylar overlay prepared by Mr. Willis Brown showing the various locations of the river from the 1852, 1895 and 1905 maps and the designed channel as it appears on the Alluvial Plain map (Ex. P-235 and P-235-A). The 1895 designation is of the right bank from the Pierce Survey and the left bank of 1895 was only a projected bank for purposes of the comparison. These exhibits show a large area between the right or Nebraska bank as shown by the 1895 Pierce Survey and the left bank of the Missouri River as shown by the 1905 Geological Survey. The river had moved considerably to the west. Dr. Gilliland also used a mylar Zip-a-Tone map prepared by Willis Brown showing the Missouri River in 1852, 1895, 1923 and 1940 from Corps maps and the 1895 right bank Pierce Survey (Ex. P-236 and P-236-A). The Missouri River in 1852 is shown to the west. The 1895 channel is considerably to the east in a pronounced bend. Then the 1923 map shows the river back to the west and then the 1940 designed channel is in some places back to about the location in the original government surveys.

In discussion of these exhibits, the testimony was as follows:

“The Court: Let’s look at the 1905. How did it get back to that area in 1905?

“The Witness: In view of all past known observations, the only possible way that that could have come back from its 1895 position to the position in 1905 is through an avulsive change either by means of a neck cut-off or a chute cut-off. Its location across the point bar which is well established renders it like many other streams that have shifted in this fash-

ion. * * *

Q. (By Mr. Moore) I take it, Dr. Gilliland, that there is no information that was available to you showing the location of the river between 1895 and 1905, is that correct?

A. No.

Q. Based on the opinion you previously stated as to the movement of the river up to 1895 and the location you found the river to be in 1905, is that sufficient information upon which to form an opinion as to how the river moved from its 1895 location to the 1905 location?

A. It is sufficient to say that sometime between 1895 and 1905 the river started flowing across the point bar. I think the only conceivable way of that occurring is through an avulsive change, as is the case in all known situations of cut-offs.

Q. Do you know of any manner by which the river could have moved from its indicated 1895 location to its indicated 1905 location other than by an avulsive change?

A. Except by man-made artificial channelling, I know of no way in which that could have happened.

Q. Why not?

A. Because, as illustrated, it is widely known that where a distinct meander exists the erosion does occur on the outside of the curve. The 1905 position of the river is well within the curve and not on the outside of the curve. Recall too that the maximum velocity is concentrated on the outside portion of the curve. Where you have maximum velocity you have maximum erosion. Conversely, where you have low velocity on the inside of the curves you have deposition.

That is the reason for the occurrence of the point bars on the inside of the curve. The velocity is lower there. The sediments being transported are deposited." (Vol. XI, pp. 1555-1558)

Although Dr. Gilliland did not have the testimony of Mr. Duncan and Mr. Cockerham available to him specifically locating the navigable channel of the Missouri River in the Iowa chute in 1899 and 1900, that testimony certainly supports and is entirely consistent with his findings.

Dr. Gilliland then pointed out on the 1890 Missouri River Commission map a low depression occupied by a slightly sinuous stream which he interpreted as a "natural chute" to the lower right of the words "Frazers Isl." which is on the point bar occupying the inner part of the meander. He was asked by the Court:

"The Court: Now, would that have a tendency—Would that develop into what we call an avulsion through there and cut the whole thing off or not?

The Witness: It certainly could because with any rising of the water level it is going to tend to flow through there, and you might note this, the distance between here and here (indicating) is shorter this way than that way (indicating). The elevation is the same so we essentially then would have a steeper path along this route than around this much longer route (indicating). Because of the steeper path, the water would flow naturally and obviously more rapidly. More rapidly flowing water, as you or as anyone well knows, can transport more material and thus erode more readily than slower flowing water. That is the reason why many times chutes are enlarged and cause abandonment of the meanders.

The Court: Of course, the testimony in this case

has been too that in the Engineer's canals, they are making them smaller than they expect the channel to be in a short while. In other words, the scouring of the river will deepen them and widen them. Will that be done naturally?

The Witness: I missed that, I'm sorry.

The Court: The Engineers say, as I understand this testimony, when they build a canal tending to transfer the channel from its present location into a canal and then into the river again, they build an 80-foot channel expecting it is going to widen and deepen and take the whole river. Does that happen naturally?

The Witness: If the canal provides a proper slot, it would be normal to have water flowing through there faster and with more erosive ability.

The Court: Getting the scouring effect, they call it.

The Witness: Yes.

The Court: You call it that too?

The Witness: Yes; that is a perfectly good word.

The Court: That happened naturally on Frazer's Island?

The Witness: Yes." (Vol. XI, pp. 1559-1560).

The witness also testified on cross-examination that he believed there was no kind of information in the way of scarps and soil tests that would really lead a geologist to say that the river had moved east or west in view particularly of the sequential positions of the river as shown on the maps. The whole area is a complex of soils and alluvial materials deposited by the river. The real

indication that the river consistently moved eastward is twofold (1) a succession of maps showing a succession of positions of the river and (2) this is confirmed by the experimental and other empirical data typifying this as a typical meander consistent with the movement of meanders in other areas. Study of the depressions that indicate abandoned channels or the movement of the river eastward would not necessarily have a solidifying effect on his opinion because in very soft alluvial material as underlies the entire area, you have easily eroded material. The rains have subdued and obscured many of what might be called marks. Furthermore, there has been extensive agriculture in the area. Plowing alone would obscure some things such as the size of the "marks" that are there. Perhaps even deliberate leveling might have obscured some of them so a study of these minute marks couldn't confirm his thesis which he would have been pleased to confirm in any way possible. In addition, a natural levee built on the outside of a curve of a river is going to be destroyed as the river moves in that direction by undercutting and shifting towards the outside of the bend. The cut bank, if it is eroded, no longer exists. As the river moved eastward, only elongated depressions or ridges as are left on point bars would have remained on the right bank, and typically it would have the gradual slope of a point bar. The witness reaffirmed his testimony as to the history of the river and that there was an avulsive change between 1895 and 1905. The avulsive change caused the river to flow in an area considerably west of the maximum eastward location of the river, leaving part of the land that had been built up on the point bar, or accreted to the point bar, exposed. In all subse-

quent maps, the river has not extended as far east as it did in the most easterly position prior to 1905. Schemmel Island is located in the area that was a point bar prior to the avulsive action.

Dr. Gilliland's conclusions are also substantiated by the study of tree number 230 which was a cottonwood tree. This tree was cut down and the rings were studied by the dendrochronologist, Mr. Harry Weakly. He testified that on May 1, 1965, they took a plug from tree number 230 which was located to the east of the Schemmel land. The plug was so unsatisfactory that the entire tree was cut down on December 17, 1965, and a slab was taken from the top of the stump comprising a complete cross section of the tree. The diameter of this tree measured 58 inches at the time of Mr. Weakly's testimony and he indicated that, since it is thoroughly dried now, it may have shrunk since cut. Mr. Weakly spent 40 hours working on that slab. It took him so much time because an area of the slab was injured by lightning which struck the tree and exploded the cells, and he had to cut thin sections with a razor blade and examine them under somewhat higher magnification. He counted along four radii of the tree to the outside and he used a power sander and in no place could he count a direct straight radius. He had to count until he came to a fault and then either go one way or the other to where he could count, until he could get back on the original radius. He counted 71 rings on the tree and determined that the growth started not later than 1895. At the time it was cut, this tree was standing by itself except for a little brush, and photographs of the tree, taken December 17,

1965, before and after it was cut down, are in evidence (Ex. P-381 & P-382). Mr. Brown testified that tree number 230 is approximately 2400 feet east of Schemmel Island.

Mr. Willis Brown prepared a mylar overlay locating the trees (Ex. P-234) and when this overlay is placed upon the 1895 Pierce right bank survey (Ex. P-213) and upon the 1905 Geological Survey (Ex. P-215), the 1895 tree is located on the point bar to the west of the 1895 right bank and is to the east of the 1905 left bank. Consequently, this is in the area to the west of where the river was in 1895, but to the east of the river as shown by the 1905 survey and the river had moved back to the west without destroying that tree. This is physical evidence of a sudden change or an avulsion. The river never thereafter washed away the area where the tree was located since that tree survived up until the time it was cut down in preparation for this trial. No reliable survey can be found following 1905 which placed the Missouri River east of that tree, although there may have been isolated instances of flooding which temporarily covered the valley.

The plaintiff contends that this movement of the river between 1900 and 1905 was sudden and met all the tests of an avulsion, leaving the boundary between Nebraska and Iowa in the abandoned main channel to the east of the Schemmel land. The boundary would appear to have been in the approximate location of the Iowa Chute and would have remained there up until the time of the Iowa-Nebraska Boundary Compact of 1943. However, plaintiff contends that determination of the exact

location is not necessary since the significant point is that there was a title "good in Nebraska" to the Schemmel land which Iowa agreed to recognize in the Iowa-Nebraska Boundary Compact of 1943.

That the Iowa Chute marked the abandoned main thread of the Missouri River, and that this was generally recognized by the old people in the vicinity, was indicated by the testimony of Iowa's witness, Mr. Otto Hinze, when questioned by the Court as follows:

"The Court: What did the old residents say what caused that, what built that chute? What did you understand when you were a kid about how it got there?

The Witness: At one time the Missouri River was over that far.

The Court: That is understood in that area?

The Witness: That is understood in that area, yes, and then it started going back again and went back to its present place. * * *

The Court: Going back to that chute a minute, what do the old people say was in that chute?

The Witness: At one time they claim that was the Missouri River, years and years ago.

The Court: It wasn't very wide?

The Witness: It was from there west.

The Court: There were two banks there?

The Witness: Yes, but that bank was throwed up there again later.

The Court: In other words, the left bank of the chute would be the left bank of the river, is that what you are saying?

The Witness: Yes, if you are facing south, that was the bank.

The Court: What about the inside bank, the west bank, when did that appear?

The Witness: Well, I think that eventually filled in there and the chute stayed open for a few years after the rest of it filled in. The river most generally fills next to the bank and leaves those blamed place like that.

The Court: Leaves the bar, does it?

The Witness: Leaves another ravine that way."

(Vol. XXI, pp. 3104-3106)

Hinze was born in 1900 and first became familiar with the Iowa Chute about 1915.

Iowa Records Indicating Eastward Movement of Missouri River and Abandoned Channel in the Iowa Chute

Investigation into other records in Fremont County substantiates the information concerning the easterly movement of the river up until just before 1905 and the fact that the Iowa chute marks the abandoned main channel of the Missouri River.

Book No. 1 in the Fremont County Court House in Sidney, Iowa, has a Delinquent Real Estate Tax List which shows areas as being "in river" (Ex. P-142). The years delinquent run from 1866 to 1874 and the index map prepared by Mr. Brown shows two areas in the river in the northeastern part of Section 15, above which is typed in red "called 18 acres". This area was the north half of the northeast quarter which would normally be 80

acres but appears as only 18 acres on the delinquent real estate tax list. There are also two areas at the top of the index map in Section 3 which are shown as in the river and there are several areas to the southwest which are also shown as in the river.

Exhibit P-143 from the Delinquent Real Estate Tax List shows a checkerboard pattern of areas in the east half of Section 10 and in Section 15 which are shown as being in the river. The dates on this page are from 1874 to 1880. Other pages from the Delinquent Real Estate Tax List Book No. 1 show the west half of the southwest quarter of Section 14 as being in the river and also, in Section 22, part of the northeast quarter, 55 acres are shown as in the river (Ex. P-144). These are dated 1883.

In the Journal of Board of Supervisors, Fremont County, Iowa, Book 7, which is on file in the County Auditor's Office, an entry appears under date of April 2, 1889, as follows: "... Resolved by the Board of Supervisors of Fremont County, Iowa, That the tax against the S2NE&N hf SE4 14-67-43 be reduced to \$5.90 for the year 1888, part of the same having gone into the river" (Ex. P-176). The plat attached to Exhibit P-176 shows this area in green on the index map as being between the Iowa chute and the Schemmel land. This area is in the east half of Section 14 and is about 700 or 800 feet west of the Iowa chute.

Another entry from the same book contains the following dated November 15, 1889:

"Resolved that the Treasur be authorized to recin'd the tax for year 1888 on the NE4 NE4 Sec 14 T67

R43 by reason the Same has been washed in the Mo River.” (Ex. P-177)

This is a 40-acre tract in the northeast corner of Section 14 and is approximately 800 feet west of the Iowa chute measured along the north section line of Section 13 which is the road which the Schemmels take to their property.

Page 127 of the Tax List of Washington Township, Fremont County, Iowa, for the year 1885 (Ex. P-165), shows two areas as being in the river. One is the west half of the southwest quarter of Section 14 which is on the present location of the Schemmel land and the description is: “All in River” “W2 SW4” Section 14-67-43 and “All in River” is also shown as applicable to the west half of the northeast quarter of Section 22. Page 14 “Record of Sales of Real Estate, Fremont County, Sold for Delinquent Taxes”, shows the north half of the northeast quarter of Section 14-67-43 as “in River” and shows this piece as being 40 acres. The records show that it was sold in 1894 for taxes. That 40 acre tract has been marked in red on the index map and the words “In River” written in that area by Mr. Brown and the Schemmel land has been identified in red (Ex. P-157). The tract is east of the Schemmel land and west of the Iowa Chute.

Page 16 of the Record of Sales of Real Estate, Fremont County, Sold for Delinquent Taxes, shows the east 77 acres of the west half of the northwest quarter of 13-67-43 as consisting of twenty acres, and the notation below this description is “57 a in River”. This piece is shown as sold for taxes for the year 1899 with the date

of sale December 3, 1900 (Ex. P-159). Mr. Brown, on the index map, has shown the piece as being just south of the road going into the Schemmel land and part of this tract is on both sides of the Iowa Chute. Mr. Brown has drawn a black line along the Iowa Chute and written to the inside of it "Iowa Chute". This line goes right through the area marked in red in which he has typed "57 Acres in River". He has also outlined the Schemmel land to the west and written "Schemmel" within it (Ex. P-159). The 20 acres are the amount of land to the east of the Iowa Chute and the "57 Acres in River" correspond to the area west of the Iowa Chute. This would seem to negate Iowa's witness Ruhe's conclusion that the river was moving back to the west after 1890 since the area just west of the Iowa Chute is shown as being in the river in the years 1899 and 1900.

The Record of Sales of Real Estate, Fremont County, Sold for Delinquent Taxes, in the office of the Fremont County Treasurer also shows the east 77 acres of the west half of the northwest quarter of Section 13-67-43 as consisting of 20 acres and the description "57 Acres in River" is referred to (Ex. P-160). The index map again shows this as being on both sides of the Iowa chute with the 20 acres corresponding to the land to the east. The entry is shown twice on the page and the records show this piece of land was sold to J. J. Cook on December 3, 1900, for taxes for the year 1899 and also shows it sold on December 6, 1901, for the taxes for the year 1900. This, again, indicates the land in the river in 1899 and 1900 and also substantiates the fact the Missouri River was in the Iowa chute in 1900 and had not started to

retreat to the west by 1890 as theorized by defendant's witness, Ruhe.

There are also in the Office of the County Treasurer of Fremont County, Iowa, pages from the ancient Treasurer's Plat Book which have certain notations of land being "In River". These pages were not dated and show various areas as being in the river with some of these locations east of the present location of the Schemmel land. On one of the index maps prepared by Mr. Brown from these descriptions, the river is shown as going through the "Jon Foster 80" which is in the west half of the northwest quarter of Iowa Section 13. At one point this shows the river within 500 feet of the present location of the Iowa chute. These maps show movements of the river with the river first to the west of the center of Section 10 and then to the east through Sections 11 and 14 and finally the notation showing the river through the Jon Foster 80 in Section 13 and near the Iowa chute (Ex. P-166 through P-177 & P-2389). The witness Cliff Cockerham testified he knew John Foster, who owned land just west of where Propp's farm is today and which was on both sides of the Iowa Chute, and that the part west of the Iowa Chute was cut into the Missouri River and the Fosters moved out.

A resolution by the Board of Supervisors of Fremont County, Iowa, dated August 1, 1905, stated:

"... the County Auditor be and is hereby instructed to redeem from tax sale for the years 1893 and 1894, the following described land, to-wit:

The North half of the Northeast Quarter of Section 14-67-43,

for the reason of wrongful assessment, and in name of one not the owner of said land, *and for the further reason that at that time said land had mostly washed into the Missouri River and should not have been assessed for taxation.*" (Ex. P-174) (Emphasis supplied.)

The attached index plat shows the land described as being "mostly washed into the Missouri River" as extending to within one-quarter mile of the Iowa Chute along the farm road from Propps into Schemmels. This document also refutes Ruhe's findings.

Even after the river had moved back to the west from the Iowa Chute, the Iowa records in the earlier days acknowledged that it had been there. Ditch Record 3, Page 286 of the Fremont County Records, contains a resolution establishing the Knox Drainage District and fixing the boundary and approving damage claims. It is dated June 11, 1909, and recorded June 12, 1909. The description of the Knox Drainage District goes ". . . to the levee *on the east bank of the Missouri River*, thence northerly up said levee about one mile to the west line of section 12-67-43, thence north $\frac{1}{2}$ mile to the C. B. & Q. Railroad. . . ." (Ex. P-196). (Emphasis supplied.) The index map shows this boundary to be at the location of the Payne levee along the Iowa Chute between the Propp and Givens farms. Mr. Brown has identified on the map "Levee on E. Bank Missouri River" and Schemmel Island is shown to the west. The resolution states that a report of the Commissioner was filed December 9, 1908, and subsequently amended and filed June 11, 1909. So at this time, the levee by the Iowa Chute was still

described as being on the east bank of the Missouri River. The witness, Willis L. Brown, testified that the description follows along the Iowa Chute and that the Iowa Chute looks like a natural ditch. It has banks on both sides and in wet weather it is full of water. However, it is not a drain coming from the hills. It starts out two or three miles below Nebraska City adjacent to the Missouri River and meanders around and at the Propp place is about as far east as it ever gets. It comes back to the Missouri River and is probably five or six miles in length. Mr. Brown also testified that this ditch is commonly known in the area as the Iowa Chute.

The Iowa State Highway Commission Official Map of Fremont County, Iowa, filed February 14, 1914, in the office of the Fremont County Auditor also shows the Missouri River covering the southwest half of Section 11 and it is just to the east of the section corner common to Sections 11, 12, 13 & 14, which is close to the location of the Iowa Chute. The right bank or Nebraska bank follows a configuration very similar to the Pierce Survey. Although the other records and testimony indicate that the river was not at this location in 1914, yet this map constitutes another recognition by Iowa officials that the river had been located there and that the east or left bank represented the limits of Fremont County, Iowa (Ex. P-1707).

There is also a plat in the office of the Auditor of Fremont County entitled Knox Drainage Ditch Outline of District and Location of Ditch, filed September 2, 1920, and signed by Ben B. Hurst, Engineer, in which the drainage ditch boundary runs along the east-west center line

of Section 13 as far west as the east line of Section 14 and then curves up to the east crossing the line common to Sections 12 and 13 and then northwesterly to the east line of Section 11 and then north. This again goes along the Iowa Chute and Mr. Brown has identified this on the Exhibit in red (Ex. P-1765).

In the Engineers' Report dated November 14, 1922, recorded in Ditch Record No. 5, Page 128, Fremont County, entitled KNOX-PLUM DRAINAGE DISTRICT, a description is contained of the boundaries of the proposed district which includes:

“ . . . thence west to the high bank of the Missouri river, thence north along said high bank to the point where it intersects the west line of section 12-67-43; thence north along said section line to the point where it intersects the east line of the C. B. & Q. Railroad right of way. . . .” (Ex. P-198) (Emphasis supplied.)

Mr. Brown's index maps outlined the area in red except where it ran along the Iowa Chute because the description just referred to “high bank of the Missouri river”, but he testified that the Iowa Chute configuration corresponds to the description.

Ditch Record Book No. 5, Page 129, concerning the proceedings of the Missouri Valley Drainage District No. 1, Election District No. 3, signed by Ben B. Hurst, Engineer, on preliminary surveys on November 24, 1922, which is on file with the County Auditor, Fremont County, shows described boundaries of the proposed district as:

“ . . . thence west to the high bank of the Missouri river thence north along said high bank to the point

where it intersects the west line of section 12, township 67, range 43; . . .” (Ex. P-1767)

No index map is attached to this exhibit but this is the slanted or curved line between Propps and Givens which runs along the Iowa Chute.

A map of Missouri Valley Drainage District 1, Fremont County, Iowa, was filed on February 5, 1923, in the County Auditor's Office. This map was by Ben B. Hurst, Engineer for the District, and was dated November, 1922. The boundaries of the District are shown and run around the curved area in Sections 13 and 12 along the Iowa Chute (Ex. P-1766). Along that line is a designation "Boundary Line of District".

Page 626 of Ditch Record Book No. 5, concerning proceedings of the Missouri Valley Drainage District No. 1, Election District No. 3, from the Fremont County Auditor's Office, also has the description:

“ . . . thence in a southeasterly direction following the meander of the *abandoned (sic) Missouri River bank* through the West half of the SW $\frac{1}{4}$ of Section 12 and the West half of the NW $\frac{1}{4}$ of Section 13 to the Southwest corner of the Northwest quarter of said Section 13, Township 67, Range 43. . . .” (Exhibit P-1768). (Emphasis supplied.)

The resolution in which this description was contained was passed on May 4, 1931. Even at that time the County Officials recognized the Iowa Chute as being the abandoned Missouri River bank. The Map of Election District No. 3 by H. Greenwood, County Engineer, dated 1931, which is a record in the office of the Fremont County

Auditor, shows the limits of the District ran west along the center line of Section 13 to where it touches the east line of Section 14 and then north on a line curved to the east to the $\frac{1}{4}$ corner of Sections 11 and 12 and then it goes directly north (Ex. P-1769). George Propp is shown as having the land in Section 13 through which the curve appears and M. M. Payne is shown as having the land in Section 12. This map also recognizes the limits of the District as running along the abandoned river bank between Propp and Givens.

Exercise of Jurisdiction Over, and Taxation of Schemmel Land by Nebraska

In 1895, the Otoe County Commissioners ordered lands added to the tax rolls of Otoe County, Nebraska, and this included the accretions surveyed within the Pierce Survey of 1895. The Commissioners Record of June, 1895, in the Otoe County Clerk's Office shows changes made by the Board of Equalization and the order that these accretions be added to the Tax Lists of Otoe County for the year 1895 (Exhibit P-133). Mr. Willis Brown testified concerning tax records of Otoe County taken from the Otoe County Treasurer's Office commencing with the year 1895 (Exhibits P-1 through P-125). Most of the land surveyed by Pierce was on the tax rolls in 1895 and all of it was taxed by 1896. The acreages shown on the 1895 Pierce Survey appear on the tax rolls with Nebraska Section 32 shown as 695 and a fraction acres (695.78) instead of the usual 640 acres, and this additional acreage was shown in the Pierce Survey as part of Section 33. The original Frazier's Island is shown as divided up into

timber lots with many small tracts of between two and ten acres. It can generally be said that all of the area within the Pierce Survey, which includes the Schemmel land, appeared on the Nebraska tax rolls continuously from 1896 through the date of the Iowa-Nebraska Boundary Compact of 1943. There were some discrepancies which were explained by the testimony, as some areas may have been described in different sections. For instance, Mr. Brown testified that the 1907 tax rolls showed Section 29 to be 395.08 acres and that same acreage designation appeared as Section 19 in 1908 and for some time thereafter. This was apparently a clerical error within the Otoe County Treasurer's Office. The index maps illustrate the tremendous amount of research required for this study. Mr. Brown testified that they only researched the tax information on Nebraska Sections 32 and 29 and did not look it up for Section 5-7-15. The information isn't void in that area, it just hasn't been shown.

In 1905, a tax suit was filed in the District Court of Otoe County, Nebraska, captioned "*State of Nebraska, Plaintiff v. The Several Parcels and Land Hereinafter Described, and all Persons and Corporations Having or Claiming Title to or any Interest, Right or Claim in and to Such Parcels of Real Estate or any Part Thereof, Defendants*" (Exhibit P-138), which included descriptions of land in the Schemmel area. This suit found that certain taxes were a valid lien against the real estate and directed that the parcels be sold.

On December 14, 1908, a Treasurer's Deed from F. M. Cook, County Treasurer of Otoe County, Nebraska, was filed for record in the office of the Register of Deeds of

Otoe County conveying 695.78 acres described as accretions to Sec. 32-8-15 and other land, a good portion of where the Schemmel Island is today, to H. H. Hanks. This deed was also recorded in Iowa with the Fremont County Recorder's Office on March 17, 1961. The land included is within the Pierce Survey. It extends over into what would have been Nebraska Section 33 east of the Schemmel land. The deed states:

“Whereas, At a public sale of real estate under a decree of the District Court, in the State tax suit for the year 1905, held in said County aforesaid, on the 8th and 13th days of November 1905, the following described Real Estate was sold . . .”

The real estate was not redeemed, and the Court confirmed the sale and ordered the execution of a deed of conveyance and the County Treasurer conveyed the real estate unto H. H. Hanks in fee simple, subject, however, to all unpaid taxes and assessments (Ex. P-141).

Henry Schemmel's title traces back to that first tax deed but Mr. Schemmel also testified that, when he and Dan Hill first took title to the property, it was under a tax sale certificate for part of it.

Portions of the area were also included within various Nebraska quiet title actions over the years. The quiet title action of *Yearsley v. Gipple*, filed in the District Court of Otoe County, Nebraska, on March 2, 1917, included land located where the western part of the Schemmel land is found (Ex. P-188). A decree was entered on November 25, 1925, quieting title to Nebraska land in Section 30 and part of Frazier Island and extending onto the northern part of Schemmel Island in the case of

Joy A. Larson, Plaintiff v. William Ivers, et al., Defendants, in the District Court of Otoe County, Nebraska (Ex. P-187). In addition, the quiet title decree in the case of *Yearsley v. Yearsley, et al.*, in the District Court of Otoe County, Nebraska, dated June 21, 1923, quieted title to the Yearsley land which is right across from what is presently the Schemmel land (Ex. P-2229). The Corps of Engineers moved the river over into some of this Yearsley land when it moved the river to the west to place it in the designed channel.

The Nebraska Courts were also exercising jurisdiction over the land immediately prior to the Compact as evidenced by two additional quiet title cases; the case of *Charles G. Zimmerer, Plaintiff v. Dan Hill, Mildred Hill, his wife; Henry Schemmel, Lucile Schemmel, his wife; George Ward; The County of Otoe, et al., Defendants*, quieted title to a large portion of the Schemmel land. The decree was entered on May 28, 1941, in the District Court of Otoe County, Nebraska. The quiet title case of *Martha Higgins, Plaintiff v. Dan Hill, Mildred Hill, his wife; Henry Schemmel, Lucile Schemmel, his wife; George Ward, the County of Otoe, et al., Defendants*, in the District Court of Otoe County, Nebraska, also included land on Schemmel Island and this decree was entered on May 28, 1941 (Ex. P-189, 194 and 190). These cases will be discussed in connection with the Schemmel title.

Consequently, at the time of the Iowa-Nebraska Boundary Compact, not only was the land being taxed in Nebraska but also the Nebraska courts had exercised jurisdiction over it.

Movement of the Missouri River Following 1905, Construction Work by the Corps of Engineers and the Otoe Bend Canal

It is plaintiff's position that the documentary evidence, Dr. Gilliland's testimony, and the physical evidence of tree No. 230 taken with the testimony of Mr. Weakly, all established that an avulsion occurred between 1900 and 1905 which fixed the boundary in the abandoned channel of the Missouri River which would correspond with the Iowa Chute. The continued exercise of jurisdiction over the land by Nebraska further confirms this conclusion. However, there were other avulsions in this area in which the river moved by itself or was moved by man-made acts farther to the west and into Nebraska. AT THE TIME OF THESE LATER AVULSIONS, AND AT ALL TIMES FOLLOWING 1905, THE RIVER WAS ENTIRELY WITHIN NEBRASKA AND THE LAND ON BOTH SIDES OF THE RIVER WAS NEBRASKA LAND UNTIL THE IOWA-NEBRASKA BOUNDARY COMPACT OF 1943.

Mr. Elmer (Buck) Garrison, age 79, of Hamburg, Iowa, testified that he first moved on the Albert Propp place in 1905 and lived there until 1908. He then moved to about a mile east and a quarter mile north where he lived until 1913. From there he moved about two miles north of Albert Propp and lived there two years and then moved three-quarters of a mile east of the Propp place and lived there for the following twenty-seven years. When he first moved to the Propp place in 1905, the Iowa Chute was a running stream located about the same place as it is today. The water came out of the Missouri River

up north and went back into the Missouri River south of Propp's about three-quarters of a mile. In 1905, it was all the way from knee deep to over his head and it was about 50 yards across. Water was still flowing in the Iowa Chute until 1911 or 1912. Mr. Garrison testified that the John Payne Levee started on the Mose Givens land about 300 yards up the field and came just west of the Propp barn and went straight south and then back to the river. There were no levees further north in the next mile or two.

In 1905, the witness was fifteen years old, and he said the Missouri River was pretty well to the east side of what is now the Schwake farm. He crossed the Iowa Chute "lots of times" during 1905 to get to the river. Between the Iowa Chute and the river by the Schwake farm, there were small willows and cottonwoods and brush. The east bank of the river ran through Schwake's and the depression is there yet. The river moved west in about 1911 or 1912. It just jumped over to another low place going through over on the bar in the spring. It jumped during high water in a week or so. Lost Lake was on the east bank of the river, on the east side of the Schwake place. There was water in the Iowa Chute and in Lost Lake and the Schwake Channel was the Missouri River up until 1911 or 1912 when it left there. The current left the Iowa Chute at about the same time although water remained. The witness was questioned about this movement by the Court as follows:

"The Court: You didn't, but when the river was there in front of the Propp place you have talked about, there wasn't any work done on it then to move it?

The Witness: No.

The Court: The Engineers didn't move it over?

The Witness: No, sir.

The Court: Build any dikes or anything?

The Witness: Nothing.

The Court: The river just moved itself?

The Witness: The river just moved back. Jumped back by going down a lower draw. It would get up and cut a new draw out.

The Court: What did it leave after it cut that draw? How much land did it leave?

The Witness: Sometimes it would leave a mile. The first time practically a mile wide between jumps.

The Court: Of dry land?

The Witness: Of dry land, yes.

The Court: How many times did it do that?

The Witness: I just seen it do it once.

The Court: That time it left a mile of land?

The Witness: It left a mile of land in there and maybe a little more.

The Court: How far north and south?

The Witness: I would say three miles.

The Court: Three miles north and south and a mile wide?

The Witness: Uh-huh.

The Court: All right."

(Vol. VIII, Pages 1062 and 1063.)

The witness saw steamboats in the Missouri River

when it was in the Schwake Channel. On cross-examination he stated that the Schwake Channel was about a mile west of Propps. Before the Corps of Engineers did their river work during the 1930's, the witness testified that the river was on the west side of Schwake's. It is a mile or so farther west of there now.

The maps available following 1905 up until the time when the Corps of Engineers started to move the river into the designed channel in the Otoe Bend area in 1934, show the river in about the same general location in the Schemmel area. The 1923 Corps of Engineers map (Ex. P-219 & P-220) shows four retards extending into the Missouri River on the left bank in the vicinity of Hamburg Landing. When the Windenburg traverse (Ex. P-233) is placed upon the 1923 map (Ex. P-220), one of these retards is within the lower tip of the traverse and another is just upstream above the lower tip of the traverse. The 1923 Corps map has the 1890 right and left banks shown.

The first Corps of Engineers aerial photographs discovered of the area were flown in 1926. These were originally found by Mr. Jauron in the vault in Kansas City at the Corps offices and were extremely difficult to locate. The Nebraska State Surveyor prepared an aerial mosaic from these photographs (Ex. P-1721) and identified the Iowa Chute along the Propp and Givens place. The photographs were taken during the winter and, because of the snow and ice, it is difficult, if not impossible, to identify certain features of the river. They do show bar or island area where Schemmel Island is located.

The Corps of Engineers also have 1926 maps (Ex. P-221, P-222 and P-223) which are revisions from these airplane photographs which show the 1890 thalweg or channel line as a dashed line with mile number 600 and 605 circled. This channel line can also be seen on the 1946-1947 tri-color map and Appendix B. Mr. Brown marked this line in red on the 1926 maps in the Schemmel area which shows the thalweg or 1890 channel line running to the east of present day Schemmel Island for the most part. Mr. Brown identified the Hamburg Landing Road which is about a quarter mile south of the southernmost point of the Windenburg traverse on Ex. P-221. When the overlay of the 1926 Corps map (Ex. P-223) is placed upon the 1923 Corps overlay (Ex. P-220), the Iowa Chute can be compared with the left bank of the 1890 survey which is shown on the 1923 Corps map. Mr. Brown, testifying for the Plaintiff in rebuttal, measured the distance from the 1890 left bank (Ex. P-212) to the Iowa Chute (Ex. P-2683) along the road from Propp's into Schemmel Island and testified that the Iowa Chute is 600 feet east of the 1890 left bank. A little bit to the north, on the section line between Iowa Sections 11 and 12, the Iowa Chute is approximately 1,100 feet northeast of the left bank as shown on the 1890 map. To the south, measured along the section line between Iowa Sections 14 and 23 and 13 and 14, the Iowa Chute is 1,600 feet east of the left bank of the 1890 Missouri River. This comparison shows the movement of the bend downstream and to the east following 1890. The retards around Hamburg Landing are also shown on the 1926 map. The Corps of Engineers also have maps of 1928 (Ex. P-224,

P-225 & P-226) and 1930 (Ex. P-227, P-228 & P-229). When the Windenburg traverse (Ex. P-233) is placed upon the 1930 overlay (Ex. P-229) and compared with the prints of the 1930 maps (Ex. P-227 & P-228), the extreme western portion of Schemmel Island above Dike 601.9 appears to be on Nebraska bar land immediately to the west side of the words "Otoe Bend" on the 1930 map.

The Corps of Engineers commenced to place the river in the designed channel in the Otoe Bend area in 1934. The construction work by the Corps of Engineers along the Missouri River between the States of Nebraska and Iowa was discussed by Major General Herbert B. Loper, one of the first District Engineers in the Omaha District. General Loper is 72 years old and presently resides in Bozman, Maryland. He retired as a Major General in the United States Army in 1953. For the next seven years, he had a Civil Service position as Assistant to the Secretary of Defense for Atomic Energy and Chairman of the Military Liaison Committee to the Atomic Energy Commission under the Atomic Energy Act of 1946 and 1954. He resigned from that position in 1961 and was in private practice as a consultant until January 1, 1969, at which time he retired. In the military, he was in the Corps of Engineers. He graduated from Washburn College in Topeka, Kansas, in 1916 and from the United States Military Academy in 1919. He graduated from the Massachusetts Institute of Technology in 1921. In addition, he attended several military schools including the Engineer's School at Ft. Belvoir, Virginia, and the Command Staff School at Fort Leavenworth, Kansas. At West Point, he had a broad education but his

major course of study at MIT was strictly civil engineering.

The witness was assigned to the Corps of Engineer's District Office at Omaha, Nebraska, arriving in early January, 1934. He had been at the Engineer School as an instructor for about four years and was due for re-assignment. It happened that the Omaha District Office had been created in the summer or fall of 1933 and the new District Engineer was Captain James M. Young, who knew the witness and who asked the Chief of Engineers if he would assign the witness to Omaha. General Loper arrived in Omaha on January 14, 1934, the date of his youngest son's birthday. His first duty was Assistant and Operations Officer to the District Engineer which continued until the 1st of August, 1935, when Captain Young was transferred and the witness became District Engineer. At the time, the primary function of the Omaha District Office was to install the regulating works on the Missouri River from Sioux City to Rulo. The general condition of the Missouri River at that time was its normal or wild and natural state except at a few localities where some regulating works had been installed as early as 1932. He described the general nature of the river as ". . . in its uncontrolled and natural state as a meandering river in an alluvial bed." (Vol. XIV, p. 1887).

In those days, by far the major part of the work was done by civilian employees. As Assistant to the District Engineer and Operations Officer, the witness' duties were to assume direct, overall supervision of the actual construction operations in the district and throughout the first year the witness spent perhaps an equal amount of

time in the field as in the office until he got to know the river quite well.

When he arrived in Omaha all the work was under contract. Sometime in late 1934 they obtained a government fleet, a government plant and personnel from the Kansas City District, and started on one job with hired labor. The district was divided into four areas with an Area Engineer in charge of each of these four areas, and a staff of accountants, inspectors, normal office staff and field staff, to both lay out the work and inspect it, supervise it day by day. At the time of the witness' arrival on the scene, the area offices were at Auburn, Nebraska City, Plattsmouth and Florence. They had an Area Engineer at each of these offices.

The project from Sioux City to Rulo was part of the overall project from Sioux City to Kansas City. The basic design of the channel was to be a 700 foot controlled width and to follow the method described in the report of the Chief of Engineers to the Congress back in 1927, and was to follow the same construction as had been done before on the Missouri River below Kansas City. The design work from Sioux City to Rulo had been done by the Kansas City District and was not complete. The trace of the 700 foot channel had been drafted from Omaha to Kansas City, and the planned structures which were intended to be built between 1932 and 1934 under the contracts in existence at the time of the arrival of the witness had been completed and designed and shown on the construction maps by the Kansas City District.

Above Omaha, in the vicinity of Sioux City and perhaps in Decatur Bend, the design work had been done because there were two jobs going on. The remainder of that part of the river from Sioux City to Omaha hadn't been done in final form because it was done in the Omaha District after the witness arrived. The general theory behind the design work was based upon actual construction operations which had been carried on in the lower Missouri River dating back as far as the 1880's and 1890's when, through both model work and experimentation, it was determined conclusively that permeable dikes built in certain ways along the river banks would cause deposit of the sediment carried by the river behind the dike and thus build a new bank for the river, and that the river could be held to sinuous curves by diking the convex banks and revetting the concave banks. This procedure will only work on a river that carries a heavy burden of sediment. The method was tried on the upper Mississippi River and had failed. This method will work with some success on any river that carries a heavy sediment load and has a sufficiently wide bottom that one can get in a type of curve that will hold. This method will probably not work above Yankton, South Dakota, because the distance between the bluffs up there is too narrow to get in the sinuous curves that are necessary for the river to hold its shape. The ideal curve, as determined by observation and experiment for a river of the capacity of the Missouri River, would be about 3 miles long and have a radius of perhaps 6,000 to 9,000 feet. In actual practice, they accepted well defined curves as they existed and tried to hold the river in these curves even

though they were not ideal. Many curves are too flat, too long, or too short. The river won't stay in a straight reach for any length of time simply because of the fact that the changes of velocity of the river will cause it to drop its bed and then it attempts to pass by that bed and in so doing creates a curve.

General Loper testified that, to start a system to create a bend, it is necessary to start from a point which has very little likelihood of being eroded away so that the river will not get behind the system, so they attempted to start at a bluff contact or very high bank contact and then proceed downstream from each of these. There were reasons why some systems were started with a little risk because 1933 was a depression year and the funds were allocated for this work based upon the expectation that it would create employment. They tried to spread it out a bit, so some of the jobs were put in locations which were not ideal to begin work in recognition of the fact that there were people to be employed in those areas. When they started this work, they did not give consideration to solid dikes or solid structures. This matter had been studied in great detail in connection with many surveys of the river, and it was recognized it would not be feasible to attempt to control the river by solid dikes as a general method of control, which did not preclude the use of solid dikes for certain specific purposes.

In driving the dike system, it is necessary to select where there is sufficient water. The dike system for a bend starts on the concave side and directs the current across the river to the opposite side, creating a concave bend there. Therefore, at the point of beginning you

must have deep water; otherwise your river will scour the bank out from under you. The take-off dikes at the beginning of a system are driven by floating pile drivers. However, as one moved downstream on that same system you run into sand bars between the high bank and the place where you are going to put the river, and across those sand bars you frequently use a skid rig, a pile driver which you drag along. If it is a low sand bar, you may wash or dredge or cut through that bar deep enough to float a driver through. This is just a matter of cost, which way is the most economical to build that dike which necessarily goes over one or more sandbars before it reaches the designed channel location.

It didn't always turn out that the deep water was on the outside of the dike system. The basic policy was to attempt to keep about 150 feet of navigable water from the end of the dike to the opposite bank and they tried to do that. Unfortunately, from time to time, the river didn't cooperate and would change direction from up above and fill in ahead of the dike and the main part of the water passed through the dike. There had been numerous occasions where it was impossible to navigate for a short time until you either washed a channel around the end of the dike or pulled a few piles and went through the dike. This was done a good many places.

In the early days, the use of dredges was not looked upon with favor by the division office. The first case of their use of dredges was here in the vicinity of Omaha, around the lower end of Florence Bend, ahead of the Narrows. This was approximately opposite the present air field. In the fall of 1936, they were experiencing diffi-

culty where the river had been diverted from the Nebraska bank by the lead-off dikes and was striking abruptly against the opposite bars and cutting back towards the Nebraska bank to the root of the dikes that had been built down below. It threatened to take out the root of the dike and it actually did bridge it and started eroding some fairly valuable property. The contractor, at his own expense and with General Loper's approval, dredged a pilot channel following approximately the location of the designed channel as it went along the Iowa shore. This was just before the freeze-up in the winter and when the ice went out in the spring, the river took to the pilot channel and broadened it out and saved the dike below. General Loper was responsible for the approval of the dredging on his own and was taken to task by his superiors until they saw how it worked out and then they were proud of him.

Basically, the proposition behind this whole river regulation was for the river to do its own work, and below Kansas City, where they had a much larger river, they found it worked very well. Up here it might possibly work eventually, but it took too much time and cost too much money and the proposal here was that quite extensive dredging would be economical. The witness believes there is no record of that first dredging because it was "kind of illegal" but he had studied the date and tied it in with other events and was certain it occurred in 1936.

As District Engineer, the witness was the direct superior of the four Area Engineers who were practical

men of long experience, and their advice was invaluable. The work of the contractors was laid out by the terms of the contract, and it was the Area Engineer's direct responsibility to see that they performed the contract. The Area Engineers had no authority to change the location, length or strength of any structure. They did have authority to direct the work to proceed or to halt if the local conditions indicated, and if they wanted to change the specifications they could make recommendations and the changes could be made in the District Office. The witness had complete authority to do this as long as it did not violate the basic design. It was fairly common for him to make such decisions which would change the structures.

The witness discussed reconnaissance maps which were made periodically through the District from one end to the other for the general purpose of seeing how the river was behaving, if there were any particular problems showing up which could be detected by a quick path down the river. It wasn't expected that these would be highly accurate and that they would show very accurately the relationship of the depth of the water with respect to any of the given features like the dikes because they were on too small a scale and the men operated from small boats with small outboard motors and, operating at that level above the water, you couldn't see too much of where you were or where the location of bars might be.

Beginning in 1935, they had a District inspection boat, the *Sergeant Pryor*, which was a twin-screw cabin-type boat operated by Captain Ed Hickman. Captain Hick-

man never used the reconnaissance maps that the witness knew of. Captain Hickman considered himself far too superior a pilot to depend upon the reconnaissance maps, and of course, when he piloted the inspection boat, he was at the altitude of some 25 feet above the water, which put him in a far better position to see where the best water was than a man sitting near the water level.

The report which led to the Congressional authorization for the 6 foot channel from Sioux City to Kansas City (1927) was based upon an expectation that the assured minimum flow during the navigation season would be around 12,000 second feet. By 1934, it had been concluded that a 6 foot channel would require a 20,000 second foot discharge. During the years 1934, 1935 and 1936 that discharge was not achieved. 1934 and 1936 were extremely dry years. 1935 was rather fair and in 1937 they had fairly good water.

The witness had an independent recollection of the work which the Corps of Engineers did immediately south of Nebraska City in the Frazier Bend area because it represented another time when he got into trouble with the higher office. Frazier Bend follows the Iowa or eastern shore below Nebraska Bend which is right in front of Nebraska City and passes under the bridge. The problem which existed there was that the river was badly split into two channels, one on either side of Frazier Island. It was a long bend in the first place, and being split in two channels of about equal capacity made it very difficult to hold in the channel they wanted to. The slope was about the same on both sides of the channel and the river entering into it came almost out of a reach,

the river was very flat, so that the river had no natural tendency to take off and shoot toward the Iowa side. The result was that they had two channels carrying approximately the same amount of water coming together at the lower end of Frazier Island and creating a lot of turbulence at that point which made the control of the river below Frazier Island extremely difficult. Below the spot where the two channels from Frazier Island came together, the river was pretty wild. *The tendency was to follow the east bank through that area.*

This channel around the west side of Frazier Island does not appear as water area on Appendix B, but it came down through the north half of Nebraska Section 25 and joined the east channel at about where the designation for Section 30 appears on Appendix B.

Otoe and Hamburg Bends at that time were essentially a single bend in the time of 1934 to 1936, approximately 6 miles long and very unstable. At the time the work started there in 1934, below Frazier Island *the principal water was going down the Iowa side* although there were some subsidiary channels through bars fairly well out into the river bottom.

They solved the problem created by the two channels around Frazier Island by building a solid dam at the head of Frazier Island which was quite unorthodox, but they had started work there in 1934 and had gotten very little improvement of the river below Nebraska City through their normal procedure so they decided to cut that chute off entirely by a solid dam. This was done in the fall of 1936 and was finished before the freeze-up

that year and was the first solid dam structure in the district. In contemplation of the building of this dam, the witness visited Fort Peck in September, 1936, and discussed with the engineers there the problem of closing a chute or channel in the Missouri River, knowing that they were facing the same problem in dealing with the closure at Fort Peck. He recalled that they told him later that when Fort Peck was closed they had to stop a discharge of 9,000 second feet. It was calculated that when the closure was made at Frazier Island, the total river was carrying about 18,000 second feet, of which at least 50% was going through the Nebraska side so that closure was about the same size as Fort Peck. The closure didn't have as good an effect as rapidly as they had hoped. The situation persisted where, as they got the first part of the dike system in place in Otoe Bend, the river kept bouncing off the bank on the other side and coming back to the Iowa side of the river.

They had given a try at canal dredging somewhat farther up the river where a situation similar to the Frazier Island and Otoe Bend situation existed. This was below Nottleman Island and Goose Island in Bartlett Bend where they had dredged a channel through and it worked quite well. The river took to the channel there in pretty good shape. While they hadn't undertaken dredging of a similar channel at Otoe Bend, it was something which he discussed with his successor, Lt. Col. William H. Hoge, in early 1938.

The witness discussed the first part of the dike system in Otoe Bend which was constructed on the Iowa bank just at the head of the bend below Frazier Island.

The lead-off dike was driven in good water and the several dikes below it started off in good water. Some of the lower dikes in the system led across the water and onto land and then perhaps back into the water again. Some of those dikes didn't wash away everything in front of them, and if they could avoid washing away the high ground in the middle of the river, they always avoided it. The system was designed always in complete hope you could cause the water to more or less push its way through the chutes as they existed on the bank where you wanted. If there was no defined chute, or if the bars in front of the dike system melted away easily, then they had no problem.

The only case the witness knows of where they bought right-of-way in those days was at St. Mary's Cutoff which was constructed after he departed, but he had laid out the plans and designed the structures.

General Loper was asked:

“Q. (By Mr. Moldenhauer) Gen. Loper, what then was the general effect of the Corps of Engineers' design and work on that one broad bend which you described which had constituted the Otoe Bend-Upper Hamburg-Lower Hamburg Bend?

A. As I stated, the bend in its natural shape was far too long to expect to maintain. So the design called for making three bends out of the one, the Otoe Bend being fairly short, the other two, the Upper and Lower Hamburg, conforming quite well to our normal requirements or normal idea of something on the order of three-mile bends on the radii of six to nine thousand feet.

Having diverted the water of course from the

Iowa to the Nebraska side by Otoe Bend, it was necessary to get back to the Iowa side in the first Hamburg Bend and then back to the Nebraska side again in the Lower Hamburg Bend." (Vol. XIV, pp. 1907-1908)

In the 1930's, the authorized goal was a six foot deep river, not necessarily for the full 700 foot width but the navigable width to be maintained at six feet was specified to be 200 feet wide. In the bends this meant that you had 200 feet of 6-foot water or greater and the minimum of 6 feet between the bends. Normally the depth within the bend would far exceed 6 feet. The critical points were the crossings between the bends where the river loses its cutting capacity by crossing in the straight line between the two bends. That goal has since been changed. The upper river dams having been constructed, it has been found that you can maintain a guaranteed flow of 30,000 second feet during the navigation season, and thus maintain a 9 foot channel of 300 feet. About 1945 the Congressional authorization called for a 9 foot channel of 300 foot width.

In response to questioning by the Court, General Loper testified that the Missouri River was divided into 3 main sections because there is some difference in characteristics. The lower is considered that section between Kansas City and the mouth. It is a broader, wider stream because of the influence of the Kaw River and several rivers in Missouri which add to the flow. Between Yankton and Kansas City there is no great influx of additional tributaries. That section of the river has the same general characteristics of the lower river, but because of the

much lower volume of water, it wasn't quite the same and was referred to as the middle river. Above Yankton is always referred to as the Upper River because the characteristics change rather markedly up there. The bluffs are in close to the river.

The witness testified there was no substantial navigation until the project was essentially completed, but to get a navigable channel which could be commercially attractive to industry and to induce industry to use river navigation, it required a minimum of 6 feet in depth. To get that six feet they had to have some control of the water to get a certain amount of flow throughout the navigation season from Sioux City on down and this was found to be about 20,000 second feet. This required the conservation of water and release from the upper dams so that during the normal low water season they could let water come down which had been stored.

Upon cross-examination, the witness stated that he remembered the events to which he has testified but has had to refresh his recollection from certain records in order to recall the dates on which they occurred. The events in a number of cases remained with him rather permanently because of the situations which created them and certain problems which he ran into.

The points from which the work was planned had to be stable points of the bank where they would not expect a bank erosion to cut behind the system. Bluff contacts were the best places where the river couldn't cut back immediately above the system, and the river had to be designed under the Nebraska City Bridge and against

the bluffs at that point. The design down through Frazier Bend and Otoe Bend and Upper and Lower Hamburg Bend was all more or less dictated by the fact that the river had to be a certain place up at Nebraska City. Some variation below Frazier Island was available. Otoe Bend might have been made longer, but it couldn't have been made much shorter because it is a rather short bend as it is. The decision to go east of Frazier Island had been made at Kansas City and his job was to construct what Kansas City had planned, but Kansas City had no part in planning the dam across the west channel at the upper end of Frazier Island. Permeable dikes were built above Frazier Island in the fall of 1933 and were in place when the witness first saw the area in 1934, but they didn't work satisfactorily and they were not causing the channel to fill. Water was running through the permeable dikes and also around the east side of Frazier Island and then coming together again at the lower end of the Island.

The Court then asked the witness:

“The Court: Might I interrupt, Mr. Murray. What did the map show at that time about where the channel was going to be, where it was designed to be.

The Witness: What are known as AP maps I'm sure we didn't have at that time. The construction maps, the design maps.

The Court: You had no maps showing one channel in that area at that time, ahead of time?

The Witness: We had a map showing where we were going to put the channel and also a map showing where the major water was going.

The Court: You had a map showing two channels?

The Witness: Yes.

The Court: And no design map had been made of the final channel?

The Witness: Yes; we had the design map to show where the final channel was to go; yes.

* * *

The Witness: There was no change from the design passed to us from the Kansas City District Office along with the contract that had been awarded to do the work.

The Court: Does that show the elimination of the east channel, so to speak?

The Witness: Yes; that map shows the east channel was to be eliminated in the Otoe Bend area." (Vol. XIV, pp. 1914-1915)

After the river came together at the lower end of Frazier Island it was wild for about six miles. It was straighter than they wanted and was a long, flat bend. It also appeared to be about a mile and a half or a mile wide. There was no well-defined single channel in the river below. There were several channels there, *with the major thrust of these being on the east*. Between these channels were low bars that were not as substantial as Frazier's Island. The witness would not state the maximum height of the land between the Iowa side and the designed channel but said it was certainly what they would call a high bar. It had vegetation on it. It was quite a substantial piece of land in there.

The witness was asked about 1931 hydrographic maps (Ex. D-291 and D-292), but he stated he couldn't confirm in any way at all what was there in 1931. He didn't see the river until 1934.

General Loper testified that to get the proper curvature, there was some encroachment on what is called the high bank on the Nebraska side in order to get the curvature of the bend and the correct width. The lead-off structure was on the left bank of the designed channel upstream from the upper end of dike 602.9, a distance of about 800 feet. Upstream from the upper end of the lead-off structure, a revetment was designed and the witness believed that the revetment came after the lead-off structure, although parts of that revetment may have been constructed. The witness did not recall the exact order of construction of the dikes on the left bank after the construction of the lead-off structures. Dike 602.9 was commenced on the Iowa shore and built westerly, 602.7 was commenced on the Iowa shore and built westerly, and the trail dike 602.9-A and 602.7-A were built generally downstream from each of the main dikes. At the time the witness left the area, the river was working on the bank about opposite 602.7 or in that general area. From there on down, it had the tendency to cut back in an opposite direction or easterly. The witness took exception to the conditions shown on the maps of 1931 as depicting the situation as it existed in 1934 and 1936. From 1934 to 1936 there was a great run of water through the slough around the west side of Frazer Island and particularly in 1936 which resulted in building an impermeable dam to prevent the water from doing this. This

dam was built in the fall and completed before the winter of 1936 so these maps do not in any way represent the conditions in 1934.

After building these dikes, they expected the depositions of sand, silt and so forth to occur downstream from them but unfortunately this did not happen after dikes 602.9 and 602.7 were built. The flow of water out of the channel was scouring in through these dikes and therefore they were not getting the deposit behind the dikes which they expected, and for a considerable length of time there was a very well-defined channel along the Iowa shore, and the fact that the water was coming through there and attacking those dikes is the reason they built the dam on the west side of Frazer's Island just upstream. There was some deposition downstream from the dikes, but it all depended upon the stage of the water and what the division of the water was. They might get a deposition one week and a scour the next, which is typical of that type of situation. It is probable that they got a deposition below the outer ends of the dike and could not get any deposition back toward the root ends. Whether that deposition got there and stayed or whether it got there and washed away again would depend upon whether you have a cross current. By the time the witness left, the situation with regard to closing of the channel had not entirely cleared up even though they had built the dam.

General Loper testified that standard procedure was to keep the main channel of the river out in front of the work, in this case to the west, but it wasn't done in

that manner completely in the entire bend. There were places in the bend where at times they had no channel in front of the dikes or no navigable, good channel as it was supposed to be.

The witness recalled the Tobacco-Rock Bluff Bend area to a less extent because the problem there, though somewhat similar, wasn't in any way as serious as it was in Otoe Bend. Below the lower end of the Bartlett Bend they had a problem somewhat similar to this which may have been created by conditions of a split flow above. In that case, in the fall of 1936 they dredged a channel through the bars which were causing the river to retreat or try to hold to the Iowa bank. His first recollection of Tobacco Bend was when there was a split channel there and the design had already been made at Kansas City to go left around Tobacco Island and to swing back close to Queen Hill and King Hill in a curve which would be reversed from the curve that went around Tobacco Island. There was no prolonged trouble that the witness can recall getting the river into the design at Rock Bluff Bend. Apparently, the river reacted well to the construction and went where it was supposed to go. When he first became acquainted with Rock Bluff Bend, there was an island in the bend generally referred to as Nottleman's Island and the design of the channel went on the Nebraska side where it is today. Before beginning the work, he did not know which of the two channels was the main channel, and in general in those cases, it was rather difficult to tell which was the main channel for any great length of time. One might be for awhile and the other might be for awhile, which was the situa-

tion at Frazer's Island later on. The witness was referred to Exhibits D-371, D-372, D-373, and D-374 which were sheets of the 1931 hydrographic survey covering the Nottleman Island, Rock Bluff Bend and Tobacco Bend area. These maps show the area as the witness remembers it only to the extent that they show two channels. There were channels on both sides of approximately the same characteristics in the Rock Bluff Bend area and it was his job to put the designed channel west of the island and that is what he did without too much difficulty. The fixed point above Nottleman Island which dictated the design downstream would be the Plattsmouth Bridge and the river's contact with the hills at Plattsmouth. The river had to be in that location and then somebody in Kansas City made a choice whether to go left or right of Tobacco Island and then that choice dictated to go right at Nottleman Island.

On redirect examination, General Loper pointed out that Exhibit D-428-A, which was a map of the Otoe Bend area, shows that the designed channel at one point encroached upon the Nebraska bank. The revetment line as shown on Exhibit D-428-A is landward of the Nebraska high bank. Also, Exhibit D-428-A had a line labeled "Bank line, September 22-23, 1931" and to the east of that a "Bank line, July 3, 1933". The bank line of July 3, 1933, is about 800 feet east of the line of September 22-23, 1931, as shown on Exhibit D-428-A. On that same exhibit, on the long dike, 601.9, General Loper testified that there was an area indicating a hole in that dike approximately 200 feet from the Iowa shore. These maps referred to by defendant on cross-examination do not show when the work

was done, so you cannot look at the map and determine what happened as of any particular date. There is no relationship between the hydrographic soundings and the bars on the maps as they were when the work was in progress.

The witness also testified that it wasn't abnormal procedure to do some of the driving of dikes across a bar before it was tied to the root of the dike or where it hit the main bank.

The area where the water was going through the dike and removing the sand, or where the sand was not depositing with the rapidity and certainty they needed, was opposite the exit of the water from the right channel around Frazer Island.

The witness was then examined by the Court as follows:

“The Court: As I understand it, those maps of the proposed stabilized channel were prepared by the Engineers without any reference to the boundary line between the two states?

The Witness: Correct.

The Court: They sought to check the river and in such a direction geographically that would be permanent and within a certain channel?

The Witness: That is right; yes.

The Court: So engineers, surveyors have trouble finding from the maps, they would have trouble finding the center line of the channel, wouldn't they?

The Witness: Well, you mean at the present time?

The Court: Yes.

The Witness: To find the center line of the channel with respect to—

The Court: Where it was in 1943 when they adopted the Compact.

The Witness: I would suspect that would be quite difficult.

The Court: Those plans were made for the purpose of forever fixing a line like you survey a section.

The Witness: No. It really wasn't a Federal problem here, this problem between the states as to what they should do about their own boundary. I don't think—

The Court: I want to separate this dispute here for the time being. It wasn't any intention of the Federal Government, the Army Engineers, to change the boundary line, to set it or anything else?

The Witness: No, sir; it was not.

The Court: They adopted afterwards, the states adopted the center line of that channel as the boundary. When do you think now, as to your recollection, that these plans were completed? What can I say that in the report that your plans were complete?

The Witness: Well, you mean the design was completed?

The Court: Yes; the design was completed.

The Witness: Actually constructed?

The Court: Completed first. When was the design permanent?

The Witness: The design of the channel from Omaha—that is, the layout of where we wanted it and what it would take to do it—were completed in the Kansas City District some time in 1933 or 1934—

1933 and 1934. I would judge probably by the end of 1934 in preparation for our contract work for the next year.

Above Omaha I don't know. We had not completed them by the time I left here in 1938 although we had the channel itself laid out where we wanted it, but we had not completed designing all of the structures and placing of the structures, and we did that only for those jobs which were to go on during the period, during the work year." (Vol. XIV, pp. 1938-1940).

The witness also testified that a number of changes from the original design had to be made after the war because the river from Sioux City to Omaha prior to 1940 was still not very well stabilized, especially the latter part of the regulation work. No funds were made available for maintenance during the war, which resulted in that section of the river getting in pretty bad shape again. In putting it back into shape, a number of changes were made in the original design because the river had changed and it made it desirable and more economical to re-design some of the locations, so even the original design would not be a good guide as to where the center line of the channel is. The witness thought there were changes made after the Compact but would not venture how significant they may have been because he was only aware of them from what he had been told.

Medford "Toots" James, born August 4, 1910, a resident of Nebraska City for approximately fifty years, testified that he has been a commercial fisherman from 1927 until about nine years ago. He has fished in the Missouri River from Niobrara, Nebraska, in the northeast corner

of the state to the Kansas state line. The main stretch of the river which he has fished is between Rock Bluff and Hamburg, once or twice a week each way since the 1930's. This was the main strip that he fished. The witness was very familiar with Hamburg Landing and testified he had fished down there a lot of times and had walked back from there, also. He was familiar with the area Henry Schemmel is farming in Otoe Bend and his familiarity with that area commenced in 1927 or 1928 when he first started fishing down there with oars. They had to row down and haul the boat back with a trailer. He is also familiar with the land where Lawrence Yearsley used to live which is directly west of the land Henry Schemmel is presently farming along the Missouri River. Back in 1930, there was an island directly north of the Yearsley land which used to be called Martin and Bates and Gude's Island and they have called it Frazer's Island.

The Corps of Engineers started working on the Missouri River below Nebraska City in the early 1930's. He thought it was about 1932 or 1934. Before the Corps of Engineers started that river work, he fished many times down at Hamburg Landing, which is probably a quarter or half a mile south of the Schemmel land. You can see the south end of the Schemmel land from Hamburg Landing. The deepest water at Hamburg Landing before the Corps of Engineers started to do their river work was right against the Iowa bank; that whole side of the river in there was the deepest. The witness testified that, as he went north from Hambury Landing in the early part of his fishing days, they followed the Iowa side of the river because that is where the water was and that is

where the fishing was. He usually fished hoop nets in six or ten feet of water for big yellow cat.

There were two channels that came around Gude's Island, one to the east, and one to the west. Where the two channels came together at the lower end and headed east or in a southeasterly direction, the water would be approximately a foot higher than the rest of the river.

The witness testified that up until 1930, there were just some pleasure boats on the river and nobody was hauling freight on the river. Any traffic was related to work on the river and a pleasure boat or two. Woods Brothers did some work at the bridge at Nebraska City and took barges up to haul rock and material.

The witness quit fishing on the river about the past nine years but, from 1927 up until that time, he was fishing down in the Otoe Bend area several times a week. He was then asked:

“Q. Can you tell us what the Corps of Engineers did in that Otoe Bend area?

A. Well, they first started driving pile on the Iowa side, shutting that channel off, or trying to shut that channel off.

Q. Was there a channel along the Iowa side when they started driving the pile?

A. Well, there should be. That is where all the boats went through. I don't know whether there was a channel or not, but all the boats had to go through there.

Q. Did you see the Corps of Engineers' boats go through there?

A. Yes, sir; I sure did.

Q. On that east side?

A. Sure did.

Q. Were they work boats, paddle boats? What kind of boats were they?

A. They were work boats and paddle boats, pile drivers, skid rigs, what-have-you.

Q. And then did you observe the progression of this work as they drove the dikes toward the west from the east bank?

A. I was going through there two or three times a week.

Q. Immediately west of this channel along the east bank in that Otoe Bend area, Mr. James, what was the river like?

A. Oh, just an island out there, water going down the east side of it, chutes going down the west side of it, trees, brush.

Q. Did you know Mr. John Grooms?

A. Yes.

Q. Did you ever see him take a boat up the east side?

A. Many a time.

Q. Mr. Grooms just died a week or two ago, didn't he?

A. Just about a week or so ago." (Vol. VIII, pp. 1075 and 1076).

(An error in transcription was made and the individual referred to was named Joe Crumes. Mr. Crumes was listed as a witness in plaintiff's pre-trial statement.)

Mr. James testified that the contractors drove the piling out from the east bank. They started out with a

floating rig until they got over to the island and then they used skid rigs across the island, going west. Mr. James was then asked:

“Q. Was that channel on the east side navigable until those dikes closed it off?

A. It was navigable after the dikes closed it off.

Q. How could that have been? What happened?

A. Well, they had to pull the dikes to get through there.

Q. What do you mean by that?

A. They couldn't get the boat through there.

Q. Couldn't they get the boat through to the west on the western side of the dikes?

A. There wasn't enough water through there.” (Vol. VIII, p. 1077).

The witness did not recall the year they pulled the piling but he did know that it was 60 and 65 foot piling which they drove in there. The piling was pulled until they got the channel cut over to the other side.

Mr. James testified concerning dredging in that vicinity. He was oiler on the dragline when they dug the canal. The canal was about a mile long and ran from a little northwest of Hamburg Landing to a point northwest where they wanted the channel to come through from the Nebraska chute.

The canal was dredged on the west side of the river. There were trees where the canal was to be located and they cut the trees off before they went in with the dragline. They cut the strip off and cut the dirt out with the

dragline and roots and stumps and then the floating dredge came through behind the dragline. They cut it down to water and then the dragline pumped it out and pumped it over the dike for more discharge. The witness worked about all summer on that canal. He testified there were trees on both sides of that canal after it was dug. The canal was on the Nebraska bank. It was on the west side of the river.

The witness saw lots of canals dug during his years on the river. Every place they wanted to make a cut, they dug a canal. The witness has also seen the Corps of Engineers dredge along a dike line so they could use a floating driver. They did that so they could get in without using a skid rig. They used a jet pump to pump the sand out to get the driver in. They would use the floating driver across what otherwise would be a dry bar when they didn't have too far to go, but if they had too far to go, they used a skid rig which was a dry land pile driver.

The witness then testified:

“The Court: From the time you started fishing in 1927 until the next twelve years or so, was there anybody on the river more often than you were that you knew of?

The Witness: I tried to beat them out there to get them before they got there.

The Court: Get the fish before anybody else got there?

The Witness: I had to.

The Court: Did you make your living doing that?

The Witness: Well, between that and what I

worked on the river I managed to make a living and raise eight children.

The Court: I wasn't asking you that. I said that is what you did for a living; you made a living fishing. You had reason to be there.

The Witness: That is right.

The Court: You knew the water?

The Witness: Yes, and still do.

The Court: Still do?

The Witness: Yes, sir.

The Court: When you started, where was what you considered the main channel when you started in in 1927?

The Witness: At what particular point?

The Court: Do you know where Schemmel Island is?

The Witness: Yes.

The Court: Where was the water then?

The Witness: The main channel was right down along the Iowa bank.

The Court: The Iowa bank?

The Witness: Yes, sir.'' (Vol. VIII, pp. 1080 and 1081).

The river was narrow, there were places with ten or twelve feet of water in there and the narrower the river the deeper the water. There was a chute over on the Nebraska bank; there wasn't much water in it and the main channel was on the Iowa side of the island. If it hadn't been for dikes and roots and stuff, this river right today would be in Hamburg, right against the Hamburg bank on

the east. Where the river is running today, it is ten or twelve feet higher than Hamburg. The channel today was put where it is by the Corps of Engineers on the Nebraska side. Schemmel Island was originally west of this channel as the witness knew it and learned it when he started to fish there.

On cross-examination, the witness testified he was not on the river prior to 1927. There was just a boat occasionally such as a steamboat or snagboat on the river, but nothing like later years. The witness went through the dikes east of Schemmel Island. In 1928 there was a shack on Schemmel Island and there were trees on the island. The island was on the west side of the main river. It wasn't on the Nebraska shore; it was on the island but there was this small chute that ran down between there and you could wade over there and they had this tent there and they had a duck hunting camp there. At high water, there would be several channels.

The witness testified that Schemmel Island has been there as long as he can remember, but not always as one great big solid island. There have been various water ways through all that land for years as long as he can remember, but the deepest water was always along the Iowa shore. He was certain of that. There were other channels at high water. He always tried to fish the main river when he was fishing and he always hung where the deep water was. This is where there was a current and high, cutting banks where the water was deep and swift.

The fact that the main channel of the Missouri River was on the east side of Schemmel Island immediately prior

to the Corps of Engineers work was also confirmed by Mr. Fred Walker, age 53. Mr. Walker is a farmer residing at Nebraska City since December, 1968, but before that he lived in Hamburg, Iowa, where he had lived since boyhood. In 1930, Mr. Walker lived within a half mile of the Missouri River just above the state line and about a mile south of Hamburg Landing. Mr. Walker testified the Schemmel land is about a mile north of the Hamburg Landing and you can see the south end of the Schemmel land from Hamburg Landing. The area where he lived was known as the Missouri River bottom. He lived there from 1930 to about 1941 when the Missouri River "went to flooding quite a bit out there and we got away from it a ways."

The witness testified that he was familiar with the river in the area before the Corps of Engineers started doing their river work. He first saw boats on the river when the Corps of Engineers started moving material in about 1933, and when the boats came up past Hamburg Landing they would go along the east bank. These boats would be pushing barges, moving pile drivers, and were work boats of all types. Some of them had paddle wheels. They were good-sized boats. Sometimes he rowed out to some of these boats such as those with paddle wheels and had one of the men on deck throw him a line and pull him up the river as far as he wanted to and then they would shove off and he would drift back down the river. He came back down the east bank which was the fastest water. The river today is quite a distance west of where it was in those days. What placed the river over to the west was the changing of the channel by the Engineers.

On cross-examination, the witness testified that Schemmel Island was there in 1930. The river went between the Schemmel Island and the east bank because he traveled up through there; and as of today, the river is clear across the Schemmel Island at the west side of it. There was only one channel at that time that amounted to anything and that is the one that ran along the Iowa side. The river in there could have been as much as a mile wide and “. . . there would be little streams running, bars, and little streams running, and bars, but there was just one channel.” Right there at Schemmels’ it wasn’t that wide because there was another island over on the other side. The west chute, if you wanted to call it a chute, was on the west side of the Schemmel Island and the main river was on the east side of it. There was a chute in 1930 over where the river is today. They closed off the channel so the river now is on the west side of the Schemmel Island. The witness reiterated that the river in 1930 was at the east side of Schemmel Island and it is on the west side now. He was then questioned by the Court as follows:

“The Court: The Iowa shore was visible, there was no question about that, in 1930?

The Witness: That is right.

The Court: You know where the Iowa shore was?

The Witness: And a good, high bank.

The Court: A good high bank?

The Witness: Yes.

The Court: And the main channel, you say, was over there?

The Witness: Yes.

The Court: Running water was over there. Now, where is the deepest channel and the running water?

The Witness: Down at the west side of the Schemmel Island because this has been closed off.

The Court: The Iowa side has been closed off?

The Witness: Right.

The Court: So the main channel is now on the Nebraska side?

The Witness: That is right." (Vol. VIII, p. 1119).

The work by the Corps of Engineers in the Schemmel area was described by Glenn Doyle, age 65, a farmer residing at Percival, Iowa. He has lived at Percival since 1919 and worked on the Missouri River from 1933 to 1936. In 1933, he started to work for Ross Construction Company weaving mat. He started to work one-half mile below the (Nebraska City) river bridge in the fall of 1933 and they worked their way down the river on the Iowa side in 1934. He worked on mat the whole summer of 1934. The witness testified he was familiar with the Lawrence Yearsley farm in those days and that Yearsley was pretty well known to the Ross Construction Company workers. The witness worked on almost all of the dikes that came out from the east bank or the Iowa shore near the Yearsley place. There was much water running along that Iowa shore and it was approximately 12 feet deep or somewhere between 10 or 12 feet. He had particular occasion to remember the depth of the water in that area because a man drowned there in about 12 feet of water where the Corps found him on the east side of the river.

This was just about straight across from the Yearsley farm. At that time, two pile drivers were tied up to the east bank about a hundred yards below where he drowned.

The witness worked on a long dike that came out across toward the Yearsley farm from the east in the area where Henry Schemmel is farming today or just below there. They used a floating driver out for probably a hundred and fifty yards and then they had to use the skid rigs from there on out and then hit water again. Right at the Iowa bank the water was ten or twelve feet deep and tapered off onto the bar. They unloaded the skid rig off the barge and used the skid rig on the bar. When they hit water again, the water was 3 to 4 to 5 feet deep, just enough to float the barge driver.

The witness explained how they drove piling and laid mat. They wove the mat and then put their header on it and drove the pile right through it on the bar. They would sink it with rock and then drive the dike through it. The mat was made out of 1 by 4 boards. After they got the mat laid on the water, they rocked it and sunk it. The mat was supposed to keep the river from washing the bottom out or washing the piling out from the bottom. It would accumulate material on the bottom.

The witness testified that before they started the work, opposite the Yearsley land, the boats went up and down along the east bank until they got it shut off and then they had to go around. In those days all they had there were tow boats pushing barges and drivers. Once a barge load of rock got away from them in that area and went through the dike to the north and made a hole

and they just left it that way until fall. The witness testified he only saw a little bit of dredging and that they did most of the dredging after he quit there. He worked three days on a little dredge but most of it was done after he left. Most of the time they laid the mat and drove the piling through, but some places they had to weave the mat under the pilings after they drove them. Most of it was pretty rugged, rough work.

When they got farther west from the Iowa bank opposite Yearsley, they used a land driver because there was lots of bar across there. Sometimes they had to wait until the water would get up high enough so they could use the floating drivers. Sometimes they drove the piling on bare bars with no water at all. It was easier to drive pile with a floating driver. There was not always water right ahead of the dikes as they drove them and they drove across islands with trees on them. At different times they cleared off places so they could dig out to put their dikes across. They had one place down there where they worked a month getting the brush cleaned off for a place to put a dike across. The Yearsley land was on the Nebraska side of the river and when they came out from the east or Iowa bank they drove toward the Yearsley land.

On cross-examination, Mr. Doyle testified that most of his work was done on the Iowa side. In the Schemmel area, lots of times they would have to dig out to put their dike line across the bar. It would be too high and they would have to dig out a place 20 feet wide and 4 feet deep to get the mat down so that they could get a dike across. The dike was tied to the stringers and they had

to get down to a certain depth. The stringer was the same as a piling 60 or 50 feet long tied with cable. The piling would be three to a clump and they would drive them and pull them together with a cable and tie them. Now there are some 5-pile clumps but in those days they mostly put in three. The mats were woven on a mat boat and then they slid right off in the river where there was water to float. Where there wasn't, they had to wade and weave the mat, move them off the boat as you wove them. He reiterated that he worked on the river from 1933 through 1936 weaving mat all the way through except for a week off once in a while to do something else.

The long dike in the center of Schemmel Island was built in 1934. There were some built north of that before. They started north of Schemmel Island and worked down and built the dikes down the river as they went. The dike north of this long one had a hole in it. This was evidently when they were working on the long one. While they were working on the long center dike, they floated the piling down.

When they were going across the islands and bars, they had to excavate. The deepest the witness remembers they ever had to go was about five feet. There were lots of willows on it and they had a lot of work getting it cleaned off and getting across there.

On redirect examination, Mr. Doyle stated that when they were laying mat and driving piling across the bar with a land driver or skid rig, they would weave the mat right on the bar and walk across there. They then

carried the rock. That was "quite a deal hauling and carrying." He remembered carrying them very well.

Lewis Martin, age 59, testified that he farms on Frazer's Island Bend. He has been familiar with the land that Henry Schemmel is farming on the eastern side of the Missouri River for about 46 years. He worked for W. A. Ross doing construction work on the river in 1935 and worked in the area of the Schemmel land on the second dike above Hamburg Landing.

In the spring of 1938 in May, he worked on a dredge in that area for the U. S. Engineers. The witness identified a photograph from the Corps of Engineers (Ex. P-2636) which showed the dredge *Billy Peters* in the Otoe Bend Canal. He was a deck hand on the dredge. The drag line first took the cut out and then they dredged on the lower side. Looking at the picture (Ex. P-2636), the dredge was coming up the canal and this was on the right bank of the proposed channel of the Missouri River. The canal was approximately a mile long and started across from Hamburg Landing. It was very nearly across west from Hamburg Landing and they worked in there until about June and then they came up and took the *General Chittenden* out and they continued on up and finished the canal. The canal started down by Hamburg Landing and went mostly northwest. There were small willows on both sides of that canal as they dredged. They had been chopped off and the drag line had cleaned the right-of-way. There was another little dredge hole they had started and quit. The '38 cut was north of the earlier cut and on the right bank and was cutting through Nebraska accretion land and would be approximately

straight southwest of the Schemmel land where the proposed new channel was going to be. The river is there now.

In 1936 the witness worked on the driver on the channel on the east bank and they left a hole in the dike for the traffic to go through. They used to be able to go down between Schemmel Island and the Nebraska right bank, but they couldn't come back. The launch would drag on the sand bar. The water was too shallow. Otherwise, you could wade it. They came back up the left bank.

The canal was dug in the proposed channel as it is today. The witness estimated it was approximately 100 feet wide when they dug it. It is approximately northwest from Hamburg Landing and was dug in 1938.

In response to questioning by the Court, the witness testified that he lived for 46 years in Frazer Bend. He could look down and see Schemmel Island. Forty-six years ago, the island was approximately 600 feet wide and a mile or a little better long. It is bigger now as they drove the dikes and they have got accretions to it. The island was there in 1923. There was nobody living on the island. There were a couple of shacks on it a half a mile above Hamburg Landing for duck hunters and somebody growing a little something there. There was a little corn and there was an old harrow and a plow there. The witness had the first outboard ever on the river around Nebraska City so he knew about this. He knew where the water was. The boat traffic was on the east side of Schemmel. There were boats going north to

do these river jobs and they were traveling the left bank. They couldn't get up the other bank, too shallow water. What commercial traffic there was used the left or Iowa bank. The switch was made to the other side when they dug the canal in 1938. The Court then asked:

“The Court: The Engineers changed the river so that it changed the channel, stabilized it?

The Witness: Changed the channel from one side of Schemmel's Island over to the other.

The Court: Over to the Nebraska side?

The Witness: Yes, sir.” (Vol. VIII, p. 1151).

Mr. Stewart H. Smith, age 51, of Blair, Washington County, Nebraska, testified that he has been Washington County Surveyor since 1955. He is a registered land surveyor in Nebraska and Iowa. Before becoming County Surveyor of Washington County, Nebraska, he worked about a year for an engineering firm and before that he worked for the U. S. Army Corps of Engineers, having started with them in 1936.

He started out with the Corps as a rod man, chain man, and then advanced to instrument man, and then to party chief, and then later on to field engineer in charge of two or more survey parties. He became a party chief in 1939. A party chief coordinates the work of the party and is in charge of the actual survey being performed and a chief of parties is a field engineer in charge of two or more survey parties. He was chief of parties from 1940 until August, 1943, when he entered the military service and then he returned to the Corps of Engineers in October of 1945. Between 1945 and 1947, he

was in charge of survey crews along the Missouri River in the construction of the preliminary and layout surveys for agricultural levees along the Missouri River. In 1947 and 1948 he was assistant section head of the field hydraulic section in charge of hydraulic crews engaged in making studies of the Missouri River and its tributaries in regard to silt deposits, configuration of stream beds, volumes and velocities of water of the Missouri River and its tributaries. In late 1948, he went to the Onawa Area Office as assistant chief of surveys where he stayed until December of 1952 when he returned to the Omaha District Office where he worked on military plans and specifications until he went with a private engineering firm.

He first worked along the Missouri River in 1937 and was assigned to the Plattsmouth area for approximately four months and then he was transferred to the Auburn, Nebraska, area. The Auburn area covered from Nebraska City bridge to Rulo, Nebraska and in 1937 the witness worked in the Otoe Bend area. He would have been twenty years old and this was about a year after he went to work for the Corps of Engineers. Prior to going with the Corps in 1936, he had been in Oregon working for the Forest Service for about 18 months on surveys, laying out fire trails in the mountains.

In late 1937 when he first went to work on the Otoe Bend area, he was a rod man and chain man and instrument man on a survey crew. When he first arrived, there had been some preliminary surveys completed with survey control lines in the area. There had been some trees cleared and just the general preparation for the staking

of a canal, but the canal itself had not been staked. They were working at that time on the Nebraska side of the river and would drive to the area in a truck and then walk from the vehicle to the site of the work. They staked the canal on dry land and did not have to cross any water to get to it. Their work consisted of staking the pilot canal which at that time was a strip of land of about 75 feet wide. They set stakes on either side of the proposed canal on offset lines so that the drag-lines could go between the stakes and not interfere with them. Trees had been cut right in the location of the canal. They cut the trees right down through where the canal was going to go and there were trees on both sides of the proposed canal. The canal, as he recalled it, was about a mile long.

The witness was referred to the pages in the 1937 Project & Index Maps (Ex. P-412) and the 1938 Project & Index Maps (Ex. P-413) and testified that the 1938 maps show where this canal was staked and dug. He also located the canal on the 1947 Corps of Engineers tri-color map (Ex. P-1036 and Appendix B) and identified the "Top" and "Bottom". The witness did not have a scale when he first marked this canal and with a scale, he extended the marks downstream, because he recalled that the upper end of the pilot canal was near dike No. 601.9. As he recalled the actual pilot canal, at the upper end it was near the right bank of the designed channel and at the lower end it was near the left bank of the designed channel.

With reference to the Otoe Canal, as the witness marked it on the 1947 Corps of Engineers map (Ex. P-1036 and Appendix B), the witness was asked:

“The Court: Are you saying that was dry land at that time?

The Witness: Yes.

The Court: In between those marks you put there?

The Witness: Yes.

The Court: It was all dry land?

The Witness: Yes. At the time we worked on the canal, it was dry land. It was subject to overflow.

The Court: No current in there?

The Witness: No.

The Court: No river current. No water.”
(Vol. IX, pp. 1165-1166)

The witness testified that he did many surveys for the laying out of dike lines. They took to the field Missouri River construction maps, which were maps on a scale of 1" equals 400', and on these maps were located traverse lines or control lines and the dike structures were tied directly to these control lines. From the control lines, they could get the zero points of the structures and then the alignment of the structures had a bearing or an azimuth and distances, and they would stake the actual structures on the ground. He was also present during the construction of dikes. They would establish a line of three targets and then the pile drivers would proceed to drive the piling on line with these targets, and then periodically, as they were in the process of driving the dikes, they would need additional stakes and the surveyors would move up onto the actual structure itself and place more targets so that the drivers could see to continue

their structure. Many times the stakes were driven on bars, and there would be times they would cross a chute and go from the chute onto a bar, and there were times that the bars would have quite a bit of vegetation and they would actually clear lines in order to stake the structures. They did not always wash away everything or all vegetation that was on the bars. They used floating drivers that would actually float on the water and then they used skid rigs that would drive piling across exposed bars. These skid rigs were quite common in the period of the 30's while he was working on the river and they would bring them out to the bar by barge. The witness has seen the Corps dredging a channel ahead of the driver so that they could use a floating driver. In many cases it would be more feasible to dredge ahead of the driver so that they could use the floating driver rather than to bring in a land driver because it was easier to use the floating driver. The skid rigs were often moved by winches on the driver itself and they would anchor cables to piling and pull themselves and they sometimes were moved by Caterpillar tractors. It was fairly common to see dikes driven out and then the water cut back in behind the root end of the dike. This was especially so in high water stage.

The witness worked many times on reconnaissance crews during the nine years he was on the river. A reconnaissance survey is a sounding survey and it is more or less a survey to determine the effect that the pilot structures have on the configuration of the stream bed. They were made with a small boat powered by an outboard motor. There were three men in the crew, a

leadsman or sounder, recorder, and an outboard operator. The soundings were made going downstream at usually a speed of about 12 to 15 miles an hour. The soundings varied in distance between soundings due to the different depths of water and, of course, the speed of the boat. The boat operated downstream under power and was probably a 16' boat. He was a leadsman in many cases and recorder in many cases. The leadsman would sound the actual depth of the river with a sounding pole or, in deep water, a lead line. He would cast that lead line ahead of the boat as they were going downstream and let the rope slide through his hand, and then as the boat moved forward the lead would sink to the bottom and he would call out the depth as he read it on the lead line, which was graduated in feet and marked with red and black stripes. The recorder was in the center of the boat and he would record soundings on a roll of maps that covered the area upon which the reconnaissance was taken; and as the boat moved down the river, he would roll the maps so that he could be marking the soundings in the general area where the boat actually was at the time. In addition to that, he would sketch bars and in some cases, sketch a bank line. As the boat proceeded down the river he would periodically check himself as to the location by some known feature along the bank of the river, whether it be a dike structure, the mouth of a creek or any identifying object. Depending upon the depth of the water, the distance between soundings could range from 100 to 500 feet. In recently dug canals, the soundings could be spread out pretty far because usually the water is pretty fast and the boat would be moving pretty fast.

As far as locating the soundings on the map, if you were in an area that you could not easily identify anything on either bank, it would be possible to be off as high as 1,000 to 1,500 feet longitudinally with the river and, not having any instruments to gauge where you were in relation to either bank, it would be possible to be off 500 to 600 feet laterally. The witness recalled one particular time when he was in a stretch of river where there was no identifying object on either bank, and he was attempting to sketch a few bars, and by the time he got to a place where he could identify his location, he was off over 2,000 feet.

In the 1930's, they made these reconnaissance trips once a month. The witness has made a trip from Nebraska City to Rulo, which is approximately 80 miles, in one day. They did not always have time to sketch in the bars and islands. They used a base map which was on a scale of 1" equals 2,640' and the physical features on the maps that they used probably dated back to 1930 or 1931. Sometimes they would sound across areas which were sounded as deep water but which were shown as bar on their underlying map. Sometimes they would make an "X" on their map which would indicate the bar was gone, but it wouldn't necessarily get taken off the map. They attempted to sketch in the bank lines in some locations, but only where the bank would be cutting heavily. In sketching the bank lines, the accuracy was probably within 300 to 500 feet laterally or perpendicular to the flow of the river.

The witness was referred to the book of ground-level photographs in the Otoe Bend area (Ex. P-2637)

and explained that picture No. 317 depicts the starting off of a dike at the bank head which is dike 602.9, left bank. The picture, dated 7-25-34, shows the dike driven out into the water and beyond the water is a bar. This dike is at the upper part of Schemmel Island.

Picture No. 316 shows the same dike 602.9 on 7-13-34 and shows a woven mattress floating on water. In many cases, they placed the mat first and then drove piling through the mat and then there were other cases where they drove the piling first and would weave the mat along the piling. The mat would be built and anchored to the piling, then after the floating mat was constructed they would ballast the mattress with rock and sink it, and it would lay down against the piling so that it would act as a retard so water would not flow freely through the dike structure. It would be perpendicular and act as a screen in front of the dike. Immediately below a structure and depending upon how fast the waters were moving through the dike, it would start forming a bar directly below the dike structure. The witness has seen some cases, where, in comparatively fast water, a bar would start to form within a week and would build into quite a bar within a period of a month. That could happen where the water had been relatively deep.

Picture No. 300 is dike 602.7 dated 8-9-34 showing the dike which has been built across water and then across a bar. Picture No. 301 is the same dike dated 8-17-34 and No. 301 shows the bank head and the dike across open water and then across a bar and then water beyond that. To the witness, a bar is any land or alluvium or silt that is above the water surface. It could be sand or mud or it may

be a mixture and it could have vegetation growing on it, so the distinction between "bar" and "island" isn't always observed. The witness also has seen bars or chutes or depressions scoured out later on behind dikes and this happens usually by over-bank flow or when the river is at flood stage or near flood stage.

Upon examination by the Court, the witness testified that in 1937 in the Otoe Bend area when he came there to work, preliminary surveys had been done, willows had been cleared to facilitate the actual layout of the pilot canal, and in other areas, there had been dike structures or dike systems put in above and below all the way from Plattsmouth down to Rulo. Cutting was taking place on both sides of the river depending upon the bends of the river. The main plan of the Engineers was initially to construct a 900 foot navigable channel and it was felt that a series of curves would be needed in order to slow down the flow of the water but not to the point where it would deposit all of its silt but to strike a happy medium where there could be a navigable channel and protection to the adjacent landowners on both sides by having the dike structure, rock revetment and pile revetment; but the main thing was to establish a navigable channel. The river was navigable to small craft and there would be many places where, if you would attempt to get through with a larger boat, you could run into trouble and there were places where the Missouri River was spread out to the extent you could sound across the whole river and never find over 5 to 6 feet of water in depth. There was commercial traffic on the river in the 50's and probably late 40's depending on the location.

The idea was to build a navigable channel from the mouth of the river upstream, and they would build a stretch and use that stretch and then they would attempt to go further and build another stretch of river that would be navigable and they just kept doing that and now, supposedly, the river is navigable from the mouth to Sioux City, Iowa, and above.

On cross-examination, the witness testified that the Otoe Bend Canal was actually dug something less than a hundred feet and more than fifty feet wide. The plug was pulled on this canal sometime in 1938. The Corps expected it would immediately scour out the bottom and widen it and eventually reach somewhere near the designed channel, which at that point the witness thought was 700 feet. As the witness recalled, the Otoe Bend Canal was dug about 4700 feet long with drag lines and then after the drag line work they moved in dredges to dredge the canal. Exhibit P-2630 is a photograph of a dredge in operation which was casting spoil over the spoil that was placed by the drag lines. Exhibits P-2629 and P-2630 are both photographs of the Otoe Bend Canal and the big machine pictured in both of them is a floating dredge. In Exhibit P-2630, it would appear that you are looking downstream because there is a tow boat tied up immediately below the dredge and it appears there is open water beyond the tow boat which would indicate it would be downstream from the dredge. In the other picture, it appears that the canal is to the left of the barge and they are in the process of widening the canal. In Exhibit P-2630 to the right of the dredge is a bank of the canal, which would be the right bank. The pile of dirt

on the right bank would not be the right bank of the designed channel because the Corps of Engineers always proposed that you would cast the spoil out to make the pilot canal and when you took the plug out, then the river or part of the river would start through the pilot canal and as it went through it would cut on both banks and do away with the spoil or carry the spoil down the river, so the right bank of the designed channel would be far beyond the spoil bank that is shown.

On redirect examination, the witness testified that on Exhibit P-2635 you can tell that the spoil bank was cast by a drag line because it is in rough condition, whereas, if it were put up there by a dredge, it would be completely smooth. A dredge only works with water, and as the discharge from the dredge goes out, the water runs with the discharge and smooths it out. A drag line dumps a bucket.

Picture No. 341, dated May 15, 1938, in Exhibit P-2637 shows Otoe Bend Canal with a barge and on the barge is a drag line.

While making a reconnaissance trip in the area of Nettleman Island, if King Hill and Queen Hill, which are about a mile and a quarter apart, were the only identifying objects in the area, you couldn't get very close in recording the soundings. Because of the scale of the reconnaissance maps (1" equals 2,640') a quarter inch would be equal to 660 feet. If you were to write a number with two digits such as 15 or 16, conceivably that number could take up space on the map that would be equivalent to 300 or 400 feet.

The witness testified upon examination by the Court that there definitely was a complete design layout on maps as early as 1940. During the time that it was being planned, there were periodic changes because a certain area would not lend itself to the plan, but it actually took field work and field construction to find out whether or not it would work; so in cases where they found that it absolutely would not work, then they would make changes in their design and this is still going on. The witness testified on re-cross examination that the canal was dug in 1938 and that at the end of 1938, the river was in its designed channel at Otoe Bend all the way. In July of 1943, the main body of water of the river was entirely within its designed channel south of Omaha.

Upon further questioning by the Court, the witness testified that when they dug the canal, they could walk to the site from land on the right bank or west bank side. They walked down to the river from the Nebraska side and there wasn't any question about that.

The witness further testified that, in designing the river, the Corps of Engineers would change it wherever necessary to slow it down to the speed that they would want it to fit in with their curves, but wherever it could be used in its present position, they did strive to use it there but they also had to maintain the constant. In this particular case it fit in with their design to put the river through the canal or in the location of the canal. His experience was mostly out in the field watching the river and not sitting in an office working with theory.

The progress of the work of the Corps was illustrated

in the Project & Index Maps of the Omaha, Nebraska, District prepared by the United States Engineer Office which were referred to in Mr. Brown's testimony. This series of maps showed the status of the work as of September 30 of each year commencing in 1934. These exhibits were obtained from the Chief of Stabilization Section in the Corps of Engineer Omaha Office. Mr. Brown testified that the function of this set of maps is to indicate the progress of the work as they go along through the different years. They indicate areas where there were contracts. Structures are shown and those that are completed appear as a solid line and structures or portions of structures which are designed but not built appear as dotted lines. These sets of maps cover everything within the Omaha office which would be from Rulo to Sioux City.

The book of maps for 1934 (Ex. P-410) indicates that, in the Otoe Bend area, the dikes at the upper end of the Schemmel land, 603.1, 602.9 and 602.7 are complete with the exception of the trail dike, 602.7-A. The dikes on the Nebraska side of the river in the Otoe Bend area are not indicated as having been built at this time. Proposed trial dike 602.7-A extends down across the right bank and proposed dike 601.9, which is the long dike through the center of the island, extends onto the right bank. The function of the dikes from the Iowa side is to force the river into a pre-determined alignment. The ones at the head of the island would force the water to the west or toward Nebraska. The 1934 map also shows revetment opposite dike 601.9 on the Nebraska shore which is identified as 602.3. This revetment appears on

dry land west of the right bank.

The 1935 maps (Ex. P-411) show trail dike 602.7-A near the top of the Schemmel land as completed and dike 601.9 which goes through the central portion of the island has been extended. Dike 601.9 as planned extends into the Nebraska shore. The revetment on the opposite or right bank which is identified as 602.3 can again be seen running well inside the Nebraska shore. Mr. Brown testified that the map indicates they planned to put the dike all the way across to the Nebraska side and they did. The 1936 maps (Ex. P-1699) show dike 601.9 as completely a solid line which would indicate it is completed but Mr. Brown testified that this dike appears longer in later Corps plans. In the 1937 set of maps, Ex. P-412, the designed channel is shown by parallel lines and from approximately the riverward end of dike 601.9 downstream to the riverward end of proposed dike 600.6, the designed channel appears to be completely on the right bank or bar land. A small portion of trail dike 601.9-A is completed and the end of this proposed trail dike is on an area appearing as trees or willows on the west side of the river. The trail dikes have the same numbers as, and are attached and extend downstream from, the dikes extending from the bank but they have letters appended.

The 1938 Project & Index Maps (Ex. P-413) show the designed channel with the words "OTOE BEND CANAL" in the designed channel between the end of trail dike 601.9-A and dike 600.6. The legend states:

"OTOE BEND CANAL MILE 601.3. Work Order

No. 122-8-7, Removal of 107,263 Cu. Yds. of earth by leased dredge started May 6, 1938 and completed June 10, 1938; W. O. No. 122-8-15,229,507 cu. yds. by leased dredge started July 28, 1938 of which 96% (211,292 cu. yds.) had been completed on Sept. 30, 1938."

The cost figures show \$13,538.78 expended for the leased dredge. In the 1938 Corps of Engineer Official Reports (Ex. P-2687) reference is made to Otoe Bend, "Improve existing canal" and the amount shown there was \$21,600 to improve the existing canal.

It should be pointed out that the 1938 Project & Index Map shows a tree area at the downstream end of dike 601.9-A which was cut off from the right bank by the Otoe Bend Canal. This same tree area appears on the Alluvial Plain Maps which were used as the basis for the Iowa-Nebraska Boundary Compact (Ex. P-1770).

The Plaintiff offered into evidence the following interrogatories to Defendant and Defendant State of Iowa's answers:

"Interrogatory 233, 'Was a canal dug by the United States Army Corps of Engineers in the year 1938 in the vicinity of Otoe Bend and the land involved in the case of Iowa versus Schemmel?

'Answer. Yes.'

Interrogatory 235, 'If the answer to Interrogatory No. 233 was 'yes', state in which state the canal was dug.

'Answer. Nebraska.' " (Vol. VII, p. 927).

The 1939 maps (Ex. P-414), the 1940 maps (Ex. P-415), and 1941 maps (Ex. P-416) show the river generally to be confined to its designed channel and each shows

the tree area at the end of trail dike 601.9 which was cut off by the Otoe Bend Canal. Sheet No. 10 of the Alluvial Plain Maps with date of March 29, 1940 (Ex. P-230) and the mylar transparency (Ex. P-231) also show this tree area and, when the Windenburg traverse (Ex. P-233) is placed upon the A. P. Map, that tree area is within the area encompassed by the traverse and is on the so-called island property.

By placing together the overlays of the Alluvial Plain Map (Ex. P-231), the Windenburg traverse (Ex. P-233), and the diagram locating the trees (Ex. P-234), Mr. Brown was able to locate the Otoe Bend Canal with relation to the features shown on those exhibits. The canal would be near the center of the designed channel starting somewhere between the letters "e" and "o" in "Otoe" on the A. P. Map (Ex. P-231) and running in a southeasterly direction to within a half inch of the letter "B" in "Bend" on the A. P. Map. Tree numbers 1210 and 1220 appear on the tree area shown as having been cut off the right bank by the Otoe Canal. Mr. Weakly testified that tree number 1220 was cut down on May 1, 1965, and he determined that it first started to grow in 1932. Tree number 1210 was a tree which had been cut down some time before and Mr. Weakly took a slab from the stump about a foot from the ground and he compared the rings with those of a living tree cut down that day and determined that tree 1210 commenced its growth in 1932. Mr. Weakly testified that it was tedious but not too difficult to compare a live tree with a tree on the ground. If you chart the rings of the tree according to width on cross-section paper, you can compare

those charts and arrive at a date for the outside ring or in some cases an inside ring, and from there on it is a very simple matter. If the work is done carefully, they will correlate with a correlation or co-efficient almost as high as 80.

Tree slabs taken from trees numbered 1140 and 1150 which were located below 601.9 and just to the east of trail dike 601.9-A also show that all of the land was not washed away by the Corps of Engineers as it moved the river into the designed channel in Otoe Bend. These had been pushed over the bank and Mr. Weakly testified tree 1140 still had dirt on the roots. It was his opinion that the first year of growth of tree 1140 was 1932 and of tree 1150 was 1933. Tree numbers 1115 and 1130 north of dike 601.9 commenced to grow in 1930. Tree number 11 north of dike 601.9 on the Schemmel land, commenced to grow in 1936 according to Mr. Weakly. Photographs of all of these trees are in evidence (Ex. P-373, Ex. P-375 through P-380). Six of the trees commenced to grow on the area prior to commencement of the river work by the Corps of Engineers in 1934 when the channel was to the east. They were not washed away by the later movement of the river to the west by the Corps of Engineers.

Further evidence that, when the river was moved from east to west in the Otoe Bend area, it was done without washing away the land and vegetation, can be found in the Corps of Engineer ground-level photographs offered by plaintiff in a book (Ex. P-2637). Mr. Brown testified that he prepared the index maps in the front of Ex. P-2637 which identify the structure numbers and tell

where the pictures were taken. These ground-level photographs show dikes being driven out from the Iowa side, and in some instances, they show land drivers or skid rigs being used on bars with water between those bars or islands and the bank. Some of them show areas of vegetation on both sides of the dike structures as they are being built. One of these pictures (No. 323) shows the commencement of dike 603.1 at the upper end of the area on 7-14-34 with a work boat, barges and a floating pile driver along the left bank of the Missouri River. This shows a considerable amount of water right along the left bank at the north end of the area. Another picture (No. 320) shows the root end of dike 602.9 which is just below dike 603.1 at the north end of the Schemmel area and there is open water between the dike and a bar or land area; and on this land area the mat has been laid, rocked and there is a land driver in operation. Water can also be seen on the opposite side of that land area. This illustrates that the river was not pushed ahead of the piling and that they did not drive the piling from the bank washing away everything in front of it. In this case they left an open channel along the east bank.

Several pictures appear in Exhibit P-2637 of the Otoe Bend Canal and enlargements of some of these photographs are also in evidence. Exhibit P-2636 is a ground-level photograph dated 5/21/38 showing Otoe Bend Canal at mile 601.4 with a dredge. The photograph is facing downstream and the dredge is working up the cut in the canal. Some vegetation can be seen on the left bank of the canal. Exhibit P-2635 shows the canal on 5/23/38 and is looking upstream. The spoil bank is on

the left of the picture or the right bank and a drag line can be seen in the background with the canal headed directly toward an area of large trees. Exhibit P-2630 is also a photograph dated 5/23/38 showing the Otoe Bend Canal and a dredge in the canal with a work boat behind it. This picture is looking downstream with the spoil on the right bank. Exhibit P-2633 shows the canal on 6/17/38 with vegetation on both sides and there is now water in it.

Exhibits P-2628 and P-2629 are photographs taken on 8/17/38 showing the canal and again show vegetation on both sides. The canal appears to have widened and has high banks on both sides. Exhibit P-2632 was taken on 9/30/38 and shows the Otoe Bend Canal with a high bank and vegetation on both sides and a dredge in the canal. Exhibit P-2631 is a view of the canal from the upstream entrance taken on 9/30/38 and shows a much wider body of water and a very substantial area of large trees on the left or east bank of the canal. Exhibit P-2634, dated 5/15/39 taken at structure 601.4 on the right bank at the upstream end of the canal shows the area cut off the right bank and now lying on the left or east bank of the designed channel as a very substantial area of vegetation and high trees.

The book of ground-level photographs (Ex. P-2637) also shows the Frazer Dam mentioned by General Loper which shut off the water around the west side of Frazer Island just upstream from the Schemmel property. Picture No. 334, dated 11/16/36, shows most of the dam in place with a channel closure about to be made. This is

an earth fill dam. Picture No. 336, dated 12/4/36 shows the channel closure as complete.

The Nebraska State Surveyor located the Otoe Canal on an aerial photograph of the lower and eastern part of Schemmel Island obtained from The National Archives and dated 10/16/38. He placed in red the words "Upper Otoe Canal" in the upper end of the canal as it showed on the picture, but he thought possibly the beginning of the canal might not appear on the picture. He also identified the "Lower Otoe Canal" and indicated trail dike 601.9 by an arrow and drew a large arrow pointing downstream. He labeled the "Iowa Chute", the Propp farm and the Givens place. There are areas of vegetation appearing in the location of the Schemmel land.

From 1940 until the present date, the river has been maintained in the designed channel except for times of extreme flooding.

The Plaintiff contends the evidence shows the main channel of the Missouri River was east of the Schemmel land immediately prior to the commencement of the construction work by the Corps of Engineers in 1934, and the Corps moved the river to the west of present day Schemmel Island without washing away all of the vegetation. They accomplished this by the construction of the dikes and the Otoe Bend Canal, creating another avulsion. Plaintiff contends that all of this river work was done within the State of Nebraska because of the 1900 to 1905 avulsion but, if it would be assumed that the Missouri River constituted the boundary between the states at the time the Corps was doing its work, then certainly the

Corps work constituted an avulsion which moved the river to the west without moving the boundary and the Schemmel land would have remained in Nebraska although on the east or left bank of the river.

Ownership and Possession of the Schemmel Land

The island surveyed in Nebraska in the original government survey and later referred to as Frazer Island was patented in Nebraska (Ex. P-1614 through P-1617). In 1895, the Otoe County Commissioners ordered the accretions surveyed in the Pierce Survey added to the tax rolls of Otoe County. Reference has already been made to this fact and to the 1905 tax suit by the State of Nebraska (Ex. P-138) and the Treasurer's Deed from the County Treasurer of Otoe County, Nebraska to H. H. Hanks dated December 14, 1908 (Ex. P-141). The area included within this deed includes a considerable portion of Schemmel Island and is all within the boundaries of the Pierce Survey and west of the Pierce Survey. It extends into what would be Nebraska Section 33 which is to the east of the present Schemmel land. The deed states:

“Whereas, at a public sale of real estate under a Decree of the District Court in the State Tax suit for the year 1905, held in said County aforesaid, on the 8th & 13th days of November, 1905. . . .”

the described real estate was sold. It further stated that the real estate had not been redeemed and the Court confirmed the sale and ordered the execution of a deed of conveyance; and the County Treasurer conveyed the real estate to H. H. Hanks “in fee simple, subject, however, to all unpaid taxes and assessments thereon.” On

October 21, 1918, Howard Huston Hanks and his wife conveyed the land to George Ward by Special Warranty Deed filed for record with the Register of Deeds of Otoe County, Nebraska on October 29, 1918 (Ex. P-1529).

Then on January 11, 1938 George Ward, widower, conveyed by quit claim deed to Dan Hill and Henry E. Schemmel by three deeds (Exhibits P-2644, P-192 and P-193). These deeds were recorded with the Register of Deeds of Otoe County, Nebraska on January 29, 1938 and were filed of record with the Recorder of Fremont County, Iowa on August 22, 1939. Thus, record notice was given in both states prior to the Compact of the conveyance of this land as Nebraska land.

Henry E. Schemmel, age 76, testified that he presently resides southeast of Nebraska City at Minersville. Minersville at one time was called Bennett's Ferry and then Otoe City. The witness is a retired farmer and first moved to the Nebraska City area in the spring of 1934. From 1911 until 1916, he was in the United States Marine Corps and he re-enlisted in the Corps of Engineers during World War I and served from 1917 until 1919. He was with the United States Seabees during World War II from June 16, 1943 to July 28, 1945.

In the years following 1934, the witness hunted and fished on the Missouri River and became familiar with the area now called Schemmel Island. He first saw the area in 1934 when it was a long island with willows on it. In partnership with Dan Hill, the witness testified that he first took title to this property under a tax sale certificate in Otoe County, Nebraska. About a year later, the witness

and Dan Hill obtained deeds to the property from George Ward. These deeds were recorded in Otoe County, Nebraska and also in Fremont County, Iowa. The reason for recording in Iowa was that after the Otoe Bend Canal had been cut, some of the land had been cut over so they recorded the deeds to show ownership in Iowa.

The tax records from the Otoe County Treasurer's Office list Dan Hill, et al., as owners of all of Nebraska Section 29 or 640 acres and Section 32, which is listed as 695.78 acres, commencing in 1937 until the Schemmels started paying taxes on the land in Iowa after the Compact (Ex. P-108 through P-125).

After receiving the deeds from George Ward, the witness went to look at the land and, to get to the land on the other side of the main channel, they crossed the bridge at Nebraska City and went down a winding road south of what is called Payne Junction and to the dike line at the head of the island, and walked the dikes down and onto the island. The island was what is called bar land. There was no water running over the island but there was water running in a channel to the east. That is why they had to cross the dike line. The island had willows and some small trees on some of it. They walked out there in the spring of 1939 and while his boys were putting "No Trespassing" signs on the dike line, the witness seeded some Reed's Canary Grass on an open space where he thought it would grow. At that time none of the land on the Iowa side was under cultivation. In the years before, someone had been farming the land on the Nebraska side of the Otoe Bend Canal. They later found out it was Almon Engleman who had some

corn there. The Iowa people called it Engleman Bar. The witness explained that the engineers cut this Engleman Island into three pieces by canals, and the farming was south of the Otoe Bend Canal.

At about the same time the witness filed his deeds in Iowa, he wrote a letter in 1939 to the Fremont County, Iowa officials advising them that some of his land was now on the Iowa side of the canal. This letter was recorded with the Fremont County, Iowa Recorder on August 22, 1939 which was the same date the deeds from George Ward were filed in Iowa, and the letter stated that the Federal Government Improvement Program from 1933 to 1939 had changed the Missouri River by levees and dikes so that this land would be on the Iowa side of the river but was Otoe County land (Ex. P-1613). This letter constituted additional public notice of record prior to the Compact of Mr. Schemmel's claim to the property.

Having learned that Mr. Engleman was farming some of the land that later became south and west of the Otoe Bend Canal, Mr. Schemmel and Mr. Hill decided to obtain a release or deed from Mr. Engleman who might have a claim by adverse possession. They went to his home place which was just below the Missouri line and made arrangements for him and his wife to come to Nebraska City and a warranty deed was obtained from Mr. & Mrs. Engleman which was filed September 13, 1939 with the Register of Deeds of Otoe County, Nebraska which conveyed:

“The Missouri River Island and accretions of land thereto within and including the south half of Sec-

tion Thirty-Two (32), Township Eight (8), Range Fifteen (15), All of Section Five (5), Township Seven (7), Range Fifteen (15), and the North Half Section Eight (8), Township Seven (7), Range Fifteen (15), Otoe County, Nebraska." (Ex. P-1603)

A considerable amount of the south half of Section 32 is on the present Schemmel Island and the southern part of the traverse is included within Section 5. Part of Nebraska Section 32 can be identified on Appendix B just south of the Otoe Canal which was also included within the land conveyed.

The witness identified dike 602.9 on Exhibit P-230, the A. P. map, as the dike he used to take across to the island in 1939. On that occasion, he was accompanied by his sons, Robert and Douglas. The boys nailed metal signs on the dike line which said "No Trespassing, Hill and Schemmel".

Mr. Schemmel had a controversy with Dr. Zimmerer and Martha Higgins over some of this land which was Section 32 in Township 8, Range 15 and Sections 5 and 8 in Township 7. There were law suits in Otoe County District Court which disposed of the controversy and the Court awarded Section 32-8-15 and the north half of Section 5-7-15 to Dan Hill and Henry Schemmel. These were Nebraska descriptions. The transcript of pleadings and decree in the case of *Charles G. Zimmerer, plaintiff, vs. Dan Hill, Mildred Hill, his wife; Henry Schemmel, Lucile Schemmel, his wife; George Ward, the County of Otoe, et al.* from the District Court of Otoe County, Nebraska are in evidence. After the decree was entered, the witness notified the Iowa county officials of that fact by letter

(Ex. P-1612) which was originally sent on June 5 or 6, 1941 and was returned without recording. The witness later recorded the letter on March 1, 1956 in the Fremont County Recorder's Office. The letter stated that it was to certify that the District Court of Otoe County decreed on May 28, 1941, that Dan Hill and Henry Schemmel were the owners in fee simple of Missouri River Island land, including a good portion of what was presently called Schemmel Island, and that the land and accretions had been assessed on the Otoe County, Nebraska Tax Books since 1895. It further stated that, due to the changing of the Missouri River by the construction of pile dikes, dredging and revetment works by the United States Government Corps of Engineers, a large part of this island would be on the Iowa side of the main channel of the Missouri River. The decree in *Zimmerer v. Hill* of May 28, 1941 was filed by Henry Schemmel with the Office of the County Recorder of Fremont County, Iowa in Book 46 at Page 283 on August 25, 1941 (Ex. P-195). These actions by Mr. Schemmel show notice to all the world in Iowa of the Nebraska quiet title action of *Zimmerer v. Hill* and that Mr. Schemmel did what he could to give notice and make his Nebraska title of record in both states.

The other law suit which Dan Hill and Henry Schemmel were involved in to quiet title to the land was captioned *Martha Higgins, Plaintiff, v. Dan Hill, Mildred Hill, his wife; Henry Schemmel, Lucile Schemmel, his wife; George Ward, the County of Otoe, et al.* This case quieted title in Nebraska to a portion of the Schemmel Island land in Dan Hill and Henry Schemmel (Ex. P-190).

AT THE TIME OF THE IOWA-NEBRASKA BOUNDARY COMPACT, HENRY SCHEMMEL AND DAN HILL HAD A TITLE WHICH WAS "GOOD IN NEBRASKA" AS RECOGNIZED BY THE NEBRASKA COURT DECREES AND NOTICE OF THIS WAS ON RECORD IN FREMONT COUNTY, IOWA. Mr. Schemmel's title to the land which remained on the right bank of the Missouri River and in Nebraska following the Compact was recognized in Nebraska by private individuals and the Nebraska Courts. This is part of the original land where the canal was cut through.

Further evidence that this title of Mr. Schemmel and Mr. Hill was good in Nebraska is shown by the fact that Dan Hill and Henry Schemmel conveyed property which was obtained through the same deeds and conveyances as were recognized in the *Zimmerer* and *Higgins* cases to Charles Tyson and David Tyson by warranty deed dated May 29, 1943 and filed in June of 1943 in the Office of the Register of Deeds of Otoe County (Ex. P-1743). This deed conveyed a little strip in the northeast quarter of Section 5 which was on the west or right bank of the present stabilized main channel and is presently owned or occupied by Forrest Binder who purchased the land from Minersville Farms. Mr. Schemmel testified that the State of Iowa has never made any claim to that land.

Mr. Schemmel testified that when the property west of the designed channel was transferred by the Schemmels, they reserved hunting rights on the land. Those hunting and fishing rights have been recognized and preserved in a decree in the District Court of Otoe County in a recent quiet title action.

Defendant offered several Nebraska quiet title decrees and, included in Exhibit D-708 is a copy of a Decree in the District Court of Otoe County, Nebraska in the case of *Forest D. Binder, et al. v. Karl H. Schminke, et al.*, dated January 15, 1965. That Decree states:

“9. Defendants Henry E. Schemmel, Douglas Schemmel and Robert Schemmel, his sons, and the families of said named defendants and their guests accompanying them, by reservation in a deed made, executed and delivered by defendant Henry E. Schemmel and Lucile E. Schemmel, husband and wife, and Douglas Schemmel, single, to Karl H. Schminke, on October 13, 1955, and duly recorded on October 26, 1957, in Book of Deeds 104, at page 507, reserved the right and license to hunt and fish on said lands in Section 32, Township 8 North, Range 15 East of the 6th P. M., Otoe County, Nebraska, in the manner provided by law. That said right and license granted to defendants Henry E. Schemmel, Douglas Schemmel and Robert Schemmel, their families and guests accompanying them, is valid and subsisting and said defendants Schemmel are entitled to enjoy same pursuant to said conveyance as described herein.” (Ex. D-708)

This action recognized the rights of Mr. Schemmel which he reserved to that portion of Section 32 not cut off by the Otoe Canal which remained in Nebraska following the Compact.

From 1939 until 1943, the witness seeded the island property to Reed's Canary Grass and then south of that put down a well and put in a tent which washed away in the first flood. In 1943, Mr. Schemmel went to the service and Dan Hill took care of the real estate. After the witness returned from the Philippines and found out that the land on the left side of the present channel was

in the State of Iowa by virtue of the 1943 Boundary Compact, he realized that he would have to pay taxes in Iowa so he went over and asked the Auditor of Fremont County to place the property on the tax records so that they could pay taxes in Iowa. In January of 1947 the witness became the Otoe County Treasurer and at some time after that, officials of Fremont County, Iowa, Mr. Cowden, the County Auditor, and Mr. VanSyoc, County Treasurer, came over to talk about the transfer of the land. They told the witness that there had been a court case in Mills County, Iowa and they were required to put the land on the tax books and the witness was busy at that time and asked them to go over to the Clerk's Office and check the plats to verify the location of the land. After that, the land was put on the Iowa tax records and Mr. Schemmel and Mr. Hill started paying taxes in Iowa in 1949. It was placed on the Iowa tax rolls under Iowa description.

Mr. Schemmel testified that the land is taxed in Iowa under the Iowa descriptions as all of Section 15, Township 67 North, Range 43 West of the 5th Principal Meridian and the fractional west half of the northwest quarter of Section 23, Township 67, Range 43 West of the 5th Principal Meridian. Some of their land also is in Iowa Section 22, Township 67 North, Range 43 West and part is in Iowa Section 14 which is covered by the Nebraska description of Section 32-8-15. Tax receipts in evidence show the Schemmels also are paying taxes on land in Iowa Section 10 (Ex. P-2643).

The Schemmel corn cribs and buildings are in the northeast corner of Section 15 and the witness testified

that the State of Iowa has never tried to get that land. The Nebraska State Surveyor prepared a mylar map showing Schemmel Island and showing an area which is dotted in the northeast corner of Iowa Section 15, Township 67 North, Range 43 West, which extends outside of the traverse of Schemmel Island and the map shows the area claimed and occupied by the Schemmel family and presently assessed in Fremont County, Iowa and the Windenburg traverse. This dotted area is identified as Schemmel property in Section 15 not included in the Windenburg traverse (Ex. P-2224). Plaintiff would point out here that, should Iowa prevail in its claim to the Windenburg traverse area, the Schemmels would still hold land to the east which is now in Iowa as a result of the Compact, and they would be in the incongruous situation whereby they had obtained title to property and their title to the western part which stayed in Nebraska as a result of the Compact was good, their title to the eastern part which was in Iowa as a result of the Compact is good, but they would have lost the middle of their property to the State of Iowa. Their claim to all the area is based upon the same acts and instruments and if their title is "good" on the Nebraska side and is "good" or not subject to attack by the State of Iowa on the eastern side in Iowa, then certainly their title to all the rest of the land should be free from attack by the State of Iowa.

The witness made an agreement with Schwake as to the property line and the witness told Schwake he would give them from the west of their Section 14 down to the half section corner.

Mr. Schemmel testified that Dan Hill is presently deceased and he obtained deeds from the heirs of Dan Hill and from the owners of Nebraska land to the west of his property and to the north of his property to dispense with any dispute as to whether or not there were any riparian claims to his land.

On advice of counsel, the witness let the property go for taxes one year because the Auditor in Fremont County, Iowa gave the land a different description from the Nebraska surveys and he wanted to get title from an Iowa description for the same land in order to clarify and establish his rightful ownership in case of sale or if mortgaged or something like that. He then bought it in at tax sale and assigned the tax sale certificate to his daughter, Mary Leah Persons, and tax deeds were issued to her. Three tax deeds are in evidence dated November 2, 1955 from the Fremont County Treasurer to Mary Leah Persons conveying the greater portion of Schemmel Island. These deeds recite that the land "was subject to taxation for the year A. D. 1950;" and the Treasurer on December 3, 1951, by virtue of the authority in him vested by law, at regular sale sold the land at public sale to Henry Schemmel who, on October 27, assigned the certificates to Mary Leah Persons. The deeds state that the time of redemption allowed by law had expired and three years had passed since the date of said sale and the property had not been redeemed (Ex. P-1553, P-185, and P-186). Mary Leah Persons lives in Albuquerque, New Mexico, and through various deeds and transactions title to the larger portion of the land is in the name of Mary Leah Persons. She has delegated power of at-

torney to Douglas Schemmel. The witness and his wife conveyed any interest they had to Mary Leah Persons, also.

Mr. Schemmel testified that after the 1952 flood, they tried to burn the timber off the land with no success. Then they started girdling the trees in order to kill them so they could be removed. If you girdle a ring around a live tree, leaving the body of the tree without any bark connection, the tree will die. Some of them will die the first summer, some will possibly come back with leaves and then die during the second summer. The witness said they had a garden but deer spoiled most of it and he thought this was in 1954. He also thought the first crop of corn they got off the land was in 1955 and they built the first corn crib in 1957 or 1958. The buildings were built in the northeast corner of Section 15 which was on the Iowa side of the agricultural levee.

Since putting up the first No Trespassing signs in 1939, the witness and his family have continuously excluded trespassers and no one other than the Schemmels or their tenants have ever been in possession. The Iowa Conservation Commission has never put up signs around the land. The Windenburg survey was done with permission of Mr. Redd, attorney for the Schemmels. The Conservation Commission did not ask permission to survey but his sons, Robert and Douglas, were over there when they started to survey and his sons told them they couldn't do it and to go over and see the Schemmel attorney at Sidney. The first indication they had that the Iowa Officials were trying to take their land was when a newspaper reporter called at their house in Minersville just

before the 1961 Missouri River Planning Report was published.

The witness identified a 1960 aerial photograph of the island which shows approximately 500 acres of cleared land used for agriculture (Ex. P-256). He testified there has been some land cleared since 1960 which is in the area of the trees to the west on the photograph.

The witness identified a picture showing water in the Iowa Chute immediately west of the Propp farmstead taken in September of 1965 (Ex. P-2646). He stated that this shows water in the abandoned channel to the east which the Iowa people call the Iowa Chute.

Mr. Schemmel testified that it cost a tremendous amount to clear the land and it took 8 or 9 years. He supposed they had paid out over \$60,000 and that broke down to a little over \$100 per acre.

In order to defend the law suit brought by the State of Iowa in Fremont County, the witness had to have an abstract made at a cost of about \$500 and retained a lawyer to whom he has paid \$3,750 and the case is still pending. No one from the State of Iowa or the Iowa State Conservation Commission ever came down and asked the witness what his claim to the land was and the State Conservation Commission never offered to pay any damages for taking the land.

Mr. Douglas Schemmel, age 42, of Minersville, Nebraska testified that he is a farmer by occupation and is the brother of Robert Schemmel and Mary Leah Persons. He first saw Schemmel Island from the east

side of the river in Otoe Bend in the early spring of 1939 when he and his father and brother walked the upper dikes over onto the island. The water was 200 to 300 feet wide through the dike line and it was very swift water, some of the swiftest in that area. The land was fairly flat with some willows on it. The boys nailed up metal No Trespassing signs and the father seeded grass. The witness went all the way around the island and over to the west and north the willows were heavier. He walked down the east side of the island and wherever he found a piling he put a sign on it. The area next to the water was exposed from 20 to 40 feet and otherwise it was willows. It was hard to walk through the willows.

The next time the witness was on the island was when he got back from service in 1946 and he hunted there in 1947 and later years. At that time they came in from the river side with a boat, leaving from the Nebraska bank. The island had grown up quite a bit and, on the east side where the old channel was, it was a fairly deep ditch with water running through it. There were some pot holes on the island where ducks came in. They still had periodic floods at that time which would deposit silt on the island. The big flood was in 1952 and it pretty well leveled and built up the island. In 1953 and 1954 they were over there seeding grass and experimenting with girdling. They were seeding with Reed's Canary Grass which is good on flood land and also makes hay and pasture. In 1947 or 1948 they tried to get Paul Womack to start clearing and in the 50's they had a preliminary survey and had Charles Shannon make an official survey. After they tried to burn unsuccessfully

in 1954, they got a real fire through there in 1955 which killed a lot of willows and some cottonwoods. In the winter of 1955 and 1956 they started to doze on the east side of the island along the old channel and paid Harvey Wilke about \$500 for the work at \$9.00 an hour and he cleared about 20 or 25 acres. They cleared about 5 acres immediately on the west side of the agricultural levee also. Further to the east of them, the Schwakes were clearing their timber. The witness identified dead trees on the Schemmel land on photographs taken by the Corps of Engineers in September of 1957 (Ex. P-2639 and P-2640). These trees appear near the river and they had cleared quite a bit on the east by that time.

The first crop was planted in 1956, being about 25 or 30 acres of corn. In those days, there were holes in the upper dike and the long dike in the east channel and there was water flowing through there in 1956.

To get their dozers over to the island, they pushed dirt ahead and got over that way. They had a bridge to get across with their daily work but the dozer had to push its way back and forth. By the end of 1958 they would have had better than a hundred acres cleared. They hired Cecil McAlexander to run the Cat and they got a contractor to furnish the Cat and, just for clearing, it cost \$20,000 for hired machines. By about 1960, they had all but a little strip on the west side of the high part of the island cleared. In 1958 they had a little over a 100 acres in cultivation, mostly to corn and a little milo, and in 1959 they had another 160 acres cleared. All the family helped with this clearing in picking up sticks.

Cecil McAlexander was the dozer operator. The family also had a little Ford tractor over there.

In 1957, they rented the land to Thurman Hukill so they could devote more time to clearing and they collected rent from him until 1961. They then leased to Roger Mattes and LeRoy McAlexander for about four years. They have not leased it since that time but have farmed it themselves. On the main island, they have under cultivation today around 400 or 450 acres. Crops have also been taken during the years from 1960 including 1967 when they were flooded out but replanted. In 1967, they had a short season corn and soybean crop and got about 3,000 bushels of corn and 1,000 bushels of beans. In 1968 their corn yield averaged 105 bushels to the acre and beans averaged 40 bushels to the acre. They have been in the government farm program since 1957 with the exception of one year and their present crop base in that program is 93 bushels of corn.

The witness testified that they started building corn cribs in 1957 on the protected side of the levee in Section 15. Every year up until 1962 they were either building on a crib, quonset, or round bin. The material for these buildings cost about \$10,000 and they did their own labor. The Schemmels have stored and sealed grain in those cribs starting in 1957.

The Schemmels have paid real estate taxes on the land since 1949 in Iowa. Iowa has also taxed and assessed the Schemmel buildings.

The witness testified that the trees on the west side of the land which show along the red mark on the 1960

aerial photograph (Exhibit P-256) were cleared in 1961 and 1962 by pushing the trees over the bank. They did not push them more than 200 feet.

On the 1966 aerial photograph of the Schemmel land (Ex. P-2647) there is on the upper left hand portion of the island a white area in the same general position as the trees which appeared on the 1960 aerial. The witness testified that this is where alfalfa had just been cut and he circled that area in red. To the riverward side of that alfalfa was low ground which has since been built up. The land is now cleared all the way to the river except a little strip of trees which was left along the river down below next to the high bank. Exhibit P-2648 is another agricultural photo dated 9-7-66 showing the southern part of Schemmel Island and the witness circled a cabin on the land and identified Hamburg Landing with an "H". He also marked a line indicating the southernmost part of the land which has been cleared.

On the 1966 aerial photographs (Ex. P-2647, P-2648) there is a little standing water in some places along the east side of Schemmel Island but there is no running stream through where the old channel had been. A road leads to the land and it is no longer an island.

Robert E. Schemmel, age 46, of Lincoln, Nebraska testified that he has been a school teacher for 19 years. He is presently a teacher in the Lincoln Public Schools and is the son of Henry Schemmel and the brother of Douglas Schemmel and Mary Leah Persons. He is in farm partnership with his brother, Douglas, and presently Schemmel Island is being farmed by Douglas, the witness,

and his son Gary.

The witness first saw the island land shortly after his father and Dan Hill bought it in the late 30's. His first recollection was of the land that is now on the southwest side of the river and the thing that stood out in his mind was the spoil that was deposited near the river bank. On the west side, there were some cottonwoods, willows, and a lot of sand. The following year, 1939, they went over to the land on the east side of the river and he remembers that there was a lot of open land with some willows and some cottonwoods. The witness and his brother nailed No Trespassing signs on the dike lines as they went down the east channel. Their father was seeding grass seed. The witness did not go all the way around the island but went down the east channel part way and then went over to the west. The trees along the west side were quite thick and higher than they were along the east side.

After military service from 1942 until 1945, he hunted ducks on the southwest side of the island. The first year he hunted would have been 1946 and he hunted all through the latter part of the 40's. By this time the trees were grown up and quite dense. They went to the island by boat from the west bank. The witness walked over to the east side of the island to the old channel where there was still flowing water. There were dike lines visible in the east channel and also on the west side where they stuck out into the main channel. He saw no dikes extending across the island. It was all solid land in there. In the late 40's, the land was quite uneven and the vegetation

was quite thick. As a matter of fact, it was easy to get lost.

During the 40's, they had maintained the No Trespassing signs. They had a little difficulty with some duck hunters before then, and after they posted the signs they had no more trouble. After the 1952 flood they were on the land to look it over and there had been a lot of fill as a result of the flooding; and they decided at this time they would try to clear it. They tried to burn and then they experimented with girdling of trees. At that time, they went into the land from the Albert Propp farm on the road. Immediately to the east of the Schemmel land some of the land on the Schwake place had not been cleared at that time. The witness testified that they never had any trouble with where their east line was between them and Schwakes.

The witness testified that they started girdling in 1953 and his father continued to seed grass and had a garden plot for two or three years, commencing in 1953 or 1954. The first clearing of the trees which had been girdled was in 1955 to 1956. The witness didn't operate the dozer but he helped pick up sticks and so forth. In 1956 they purchased a small tractor and did their first farming. Then, starting with the 1957 season, they rented the land out so they could devote more time to the girdling and picking up. There were windrows and stumps which had to be cleaned up. This was very hard work clearing the island. They hired a contractor and Cecil McAlexander was the operator after the first year. Then in 1963, they bought their own D-7 machine and Mr. McAlexander continued to operate the dozer; and then as

time progressed, his brother Douglas began taking over more and more of the operating. Estimating the amount of work done with their own D-7 and the amount paid to outside contractors, the witness estimated the amount spent clearing was approximately \$50,000. There are about 450 to 500 acres under cultivation today, primarily in corn and soybeans. They have set aside some land over there for a sort of game preserve, especially in the abandoned east channel which is in grass and pasture and they have planted a considerable amount of sorghum-sudan with that in mind.

To get to the island today, they cross the Nebraska City bridge, coming down the east side to the Albert Propp farm, and then go straight west to where the buildings are located. They have an easement agreement with the Schwake Estate on the part of the land where the road crosses the Schwake property and the road is privately maintained. After you cross the levee, the road goes along the old bank and the east channel a little way south, and then it crosses the rock dike to get across to the island. The rock dike was put in by the Corps of Engineers in the early 60's.

The witness testified that the 1968 taxes were something over \$1200 and the total taxes paid since 1949 would be approximately \$7,000 paid in Iowa. On the island there is a hay shed and a windmill tower and the Schemmels' No Trespassing signs have been maintained in the 50's and 60's. There have never been any signs put up by the State of Iowa.

Paul Womack, age 52, of Nebraska City, whose occu-

pation was construction work and clearing using Caterpillar tractors, testified that in April of 1948 Henry Schemmel and his boy came to the house and told Womack they wanted to show him a job. The witness went with the Schemmels over across the river. The river was running along where the Schemmels wanted to put a road across to get to the island and he "wasn't about ready to stick a 20-ton Cat in there." There was a 35 or 40 foot swath of water running down there between the east bank and the island fast enough so that he didn't want to undertake it.

In 1966, the witness worked 2 or 3 weeks on the island clearing and leveling on the east end, clearing big cottonwood trees and willows at a cost of about \$170 or \$200 an acre. In 1968 he cleared and did a little land leveling on Schemmel Island, working about three weeks. At that time it was a little bit cheaper, running from about \$135 to about \$150. With the prices as of the time of trial, the cost would have been about \$200 or over to clear land like that. In 1966, the witness crossed from the mainland to the island on a rock fill. The place where Schemmels have the crossing now to go over to their place was the chute where the channel was which Mr. Schemmel wanted the witness to doze in to get across to the island in 1948.

Cecil McAlexander, age 50, a truck driver now living in Nebraska City, testified that he has lived in Iowa all his life except the last three years. For about twenty-seven years he lived $3\frac{1}{2}$ or 4 miles north of Henry Schemmel's Iowa farm which is right straight west of Propp's. To get to the Schemmel land you cross up over

a levee and go over what you call an old river bed where there is a rock dam across there, which has been there since about 1961.

This witness has done most of the clearing and leveling on the Schemmel land, having started in 1956 or 1957. In order to get to the island in 1956 or 1957, he had to build a road out of anything he could find to get ahead of his Cat such as trees, dirt and everything. When he first went on the island, it was a mass of trees which had been girdled or sprayed by airplane and most of them were dead. When he first went on the land, probably fifteen acres or so had been cleared just after you went over the levee. The land was cleared in spots and this had been done by a contractor, Harvey Wilke. The land that had previously been cleared was in crops and the whole timber area was covered with Reed's Canary Grass. When he first went on the land, they didn't have a rock dam. They built a road across it and this was in the winter time and they went over there and the ground was frozen but he almost didn't make it because it wasn't frozen that hard. He had difficulty operating because of the Reed's Canary Grass which would get in his radiators and plug them up. The land was posted with "No Trespassing" signs with "Henry Schemmel" at the bottom of them. He never saw any State of Iowa Conservation Commission signs.

The witness testified how he cleared the land. He tried to break the trees off, shear them off right at the bottom at the ground. They were rotten. Most of the island was cleared that way. Some of the trees were too large to take out that way and they let them sit until

later on. They started out where it was easy to clear and where they could make time because they wanted to get the land into production. On the island proper they would clear in the spots that were easiest. After the trees were knocked down, they were piled and meanwhile two of the Schemmels were picking up tree limbs and carrying them over and piling them. They also had a Caterpillar helping.

The witness started working in 1956 or 1957 and worked clear up until 1968 off and on. He worked every winter except 1961 when they ran into trouble with trees which he couldn't dig out along over next to the river. They had been girdled, but there was just too much tree there. They finally used three Cats to take the stumps out and it was all they could do to get them out. The other two Cats were operated by people hired by the Schemmels. The witness was referred to the 1960 aerial photograph of the Schemmel area (Ex. P-256) and testified that he cleared some of the trees shown in the picture on the west side of the Schemmel land and pushed them over the river bank. That tree area on the west side of the island has been cleared and leveled. The witness placed a line just to the east of the long area of trees which gave him trouble and marked it with an "A" at the north end and a "B" at the south end. The big trees were pushed over the bank but were not pushed into the river. There is a high bank along there.

Henry Schemmel rented the farm to the witness, his son, and his son-in-law in 1961 until 1965 on a share-crop arrangement. A man named Hukill had been renting it from Henry Schemmel and had planted corn, beans, milo,

and wheat. The Schemmels bought their Cat in 1963 and the witness continued to clear and level to get more land into production. The last time he worked on Schemmel Island was in 1968. He testified the Schemmels had done a lot of work over there by themselves and it is hard work. The clearing, the picking up of sticks, the girdling and everything would cost about \$200 an acre by the time they Rome Disc it and get it ready for production. The Schemmels have a hay shed on the island and off the island they have other buildings. One of the buildings was built in 1957 and a quonset in 1958 and in 1961 they built a big 8,000 bushel crib. The cribs are on the east side of the levee.

The witness testified that the Schemmel land is the best ground in the country. The witnesses' son raised one crop of 40-acres of corn and averaged 187 bushels to the acre. The Schemmels have built this ground up with fertilizer and alfalfa and they have really tried to get it built up into good land and the witness has tried to help them with the knowledge the witness had of farming and dozing. There are about 500 acres cleared now.

Conduct of State of Iowa with Reference to Schemmel's Island

As discussed in a previous section, the Iowa records indicated that the land west of the Iowa Chute was washed into the Missouri River. Testimony of the Schemmels established that the land was placed on the tax rolls in Fremont County, Iowa and taxes have been paid continuously upon it since 1949.

Miss Winifred Rhodes, age 47, testified that she has been Fremont County Treasurer since 1956. She is a lifetime resident of Sidney, Iowa and was Deputy Treasurer from 1945 to 1956. Miss Rhoades testified that in 1948 or 1949 there was some discussion between the Treasurer and Auditor about Nebraska land being put on the Fremont County, Iowa tax rolls. It is the function of the County Treasurer's Office in Iowa to collect taxes.

At the request of Mr. Schemmel, the witness examined her records to see whether Section 15-67-43 has appeared on the tax rolls in Fremont County and taxes collected on it. She found that in Section 15, in 1880 the east part of the northeast quarter and the east part of the southeast quarter were listed on the records. In 1881 and 1882 there was no listing. In 1883 she found no book. In 1884 and 1885 she found no listing of Section 15. In 1886 she found no book. In 1887 this Section was not listed. In 1888 through 1933 there were no books. In 1934, 1935 and 1936 there was no listing. In 1937 through 1942 there were no books to be found. Then in 1943 to 1948, the only description which she found was the north half of the northeast of 15-67-43 listed to Frank Schwake. In 1949 she found the northeast of the northeast, the northwest of the northeast, the southeast of the northeast, and the northeast of the northwest of Government Lot 1 of 15-67-43. In the years which she stated there was no listing, there were books found but no listing of this particular land.

In 1949, additional land went on the rolls in Section 15-67-43 which was the southwest of the northeast, the southeast of the northwest of Government Lot 1, the

northeast of the southwest, Government Lot 1, part of the southeast southwest, the northeast southeast, the northwest southeast, the southwest southeast fraction, and the southeast of southeast, all in 15-67-43, which were listed to Dan Hill and Henry Schemmel.

From 1949 up to the current date, Section 15-67-43 has been taxed. There have been some tax sales during that period and the names have changed on different ones. There was a tax sale on the northeast northeast, northwest northeast, southeast northeast and the northeast northwest part of Government Lot 1 which was sold to Mark Sheldon on December 4, 1950. These were later redeemed by Henry Schemmel.

There was a tax sale on the southwest northeast, southeast northwest part of Government Lot 1, the northeast of southwest Government Lot 1, part of the southeast southwest, the northeast of the southeast, northwest of the southeast, southwest of the southeast, and southeast of southeast, 15-67-43, and those were sold at tax sale to Henry Schemmel on December 3, 1951. The witness said there were tax deeds issued by the County Treasurer's Office of Fremont County, but she didn't have the exact name of whom they were issued to.

The witness also looked at the tax history of Section 23-67-43. In 1880 it listed the north half of the northwest of 23-67-43 and also the south half of the northwest of Section 23-67-43. They were also listed in 1881 and 1882. In 1883 she found no book. In 1884, lot 1 of the northwest northwest and lot 2 of the southwest northwest, 23-67-43 are listed. This was also listed in 1885. In 1884

there were 43 acres and in 1885 43½ acres. In 1886 no book found. In 1887 the property was listed and in 1888 to 1933 no books were to be found. In 1934, 1935, and 1936 there was no listing. In 1937 to 1942 no books were found and in 1943 to 1948, inclusive, the description wasn't listed. In 1949 the northwest of the northwest and the southwest of the northwest fraction of 23-67-43 were listed to Dan Hill and Henry Schemmel and they have been on the rolls ever since.

On Section 23, taxes were delinquent for 1949 and 1950 and sold to Henry E. Schemmel on December 3, 1951. In 1951 it was the same listing as Dan Hill and Henry Schemmel and taxes were paid on a subsequent tax sale certificate by Henry Schemmel and then in 1952 the taxes were paid subsequent to tax sale certificate by Henry Schemmel. These certificates were assigned to Mary Leah Persons on October 27, 1953. Then in 1953 taxes were paid subsequent to tax sale certificate by Mary Leah Persons; in 1954 they were also paid by Mary Leah Persons; and then a deed was issued to Mary Leah Persons on November 2, 1955. Taxes have been paid ever since then including the current year.

The witness testified that she collects all real estate taxes in the county assessed by any municipality, school board and including the state on soldier's bonus. She collects all taxes, all personal and real estate. The witness identified 1968 tax receipts, payable in 1969, on all the property, paid by Henry Schemmel including the Mary Leah Persons land. The total amount shown on these tax receipts is \$1,183.06 (Exhibit P-2643) for real estate taxes in 1968.

Iowa's Traverse of the Schemmel Land

The land claimed by the State of Iowa in the case of *State of Iowa v. Henry E. Schemmel, et al.* was described by metes and bounds in Iowa's Petition (Ex. "L" attached to Complaint, Ex. P-1691). This has also been described as the Windenburg Survey (Ex. P-237). The description runs

" . . . to the ordinary high water line on the east bank of the abandoned channel of the Missouri River, which is the point of beginning, thence along said ordinary high water line. . . "

It also runs

" . . . to the Iowa-Nebraska boundary as established by States of Iowa and Nebraska and approved by the 78th Congress in 1943, thence along said boundary. . . . "

Plaintiff's Interrogatory No. 250 was offered:

"What is the physical feature, if any, which was followed by the State of Iowa in determining the easterly boundary of the tract as described in the petition in equity case of Iowa versus Schemmel?"

The Answer by the State of Iowa is:

"The same as answer to Interrogatory No. 249."

The Answer to Interrogatory No. 249 is:

"The left bank ordinary high water mark of the former channel which separated the island from the east bank of the Missouri River." (Vol. VIII, p. 945).

The Nebraska State Surveyor retraced the Windenburg traverse along a portion of the easterly boundary

and, when asked if it followed the east high bank, he stated it did not. He couldn't find that it followed any particular feature. A reduction of the Windenburg survey by photographic process was offered showing the location of the hubs along the traverse where the witness took pictures (Ex. P-383). These photographs show the traverse going through an alfalfa field, across flat open ground, crossing a high bank at right angles, and across land with no depressions or banks (Ex. P-385, P-388, P-391, P-393, P-396, & P-397). Just as in the *Babbitt* case, the eastern line is apparently an arbitrary determination by the surveyor without justification in fact.

The Plat prepared by Mr. Windenburg (Ex. P-237) indicates the Schemmel land was surveyed in July and August, 1961. It shows the "Gov. meander line of east bank, 1846," which runs through the northwest portion of the island. Then it shows the "Approximate location of west bank as surveyed by C. W. Pierce, County Surveyor, Otoe County, Nebraska in 1895." This line runs considerably to the east of Schemmel Island except at the very lower portion. In the middle of the Schemmel land, Mr. Windenburg has shown the designation of the Section Corner common to Nebraska Sections 30, 29, 31 and 32 but has indicated that the corner was not set. It also shows in the southern part the section corner of Iowa Sections 15, 14, 23 and 22 with an indication the corner was not set. In the middle of the island below the section corner common to Sections 30, 31, 29 and 32, or in Iowa Section 15, are the words "*Mary Leah Persons*". On Iowa Section 14 in the west half of the southwest quarter, are the names "*Douglas Henry Schemmel & Robert*

Edgar Schemmel'''. He has other property names to the east of the Schemmel land. He has some elevations on the map which show an area on the western half of the island as being higher than some of the land along the eastern side.

The traverse of the Schemmel area was made with the same lack of precision or justification as the traverse of Nottleman Island. It does, however, apparently recognize there are individual claimants to the land.

GENERAL TREATMENT OF OTHER AREAS ALONG THE MISSOURI RIVER

Plaintiff has introduced into evidence facts concerning several specific areas along the Missouri River which point up problems created by Iowa's conduct following the Iowa-Nebraska Boundary Compact of 1943. In some instances they establish conduct by Iowa prior to the Compact significant to its meaning. The Nebraska State Surveyor testified that he has not had an opportunity to study the areas which Iowa claims to own in the detail which the Schemmel and Nottleman Island areas have been studied. There would be no comparison. Most of the information found in these other areas is a by-product of the study. They haven't really been concentrated upon as have the Nottleman and Schemmel areas. However, it is Plaintiff's position that this evidence is significant in order to determine the meaning and effect of the Iowa-Nebraska Boundary Compact of 1943. These facts are also essential in order to give the Court a better overall picture of the conduct of the river and of the State of Iowa authorities both before and after the Iowa-Nebraska

Boundary Compact of 1943. They point up some of the problems which existed prior to the Compact and some of the problems that now exist as a result of Iowa's conduct. These situations are not isolated instances but must all be considered in determining what the meaning of the Compact is. They do not necessarily include all the problems that exist but do point up many of them, and a determination of applicable law with regard to these situations is essential if the Iowa-Nebraska Boundary problems are ever to be resolved.

Plaintiff offered a filing by the State of Iowa in this case of a list of areas which the state claims to own captioned LIST OF AREAS OWNED BY STATE OF IOWA ALONG THE MISSOURI RIVER AND DISCLAIMER (Ex. P-2651). Plaintiff also offered a series of Corps of Engineers 1946-1947 tri-color maps for the length of the Missouri River along the Iowa-Nebraska border and Mr. Brown testified that he had placed on these maps dashed red lines which represent where the river was in 1965. The solid parallel red lines on these maps represents the 1943 designed channel (Ex. P-2652 through P-2654, P-2662 through P-2667, P-2673 through P-2676, and P-2679 through P-2683).

These maps were kept in the State Surveyor's Office primarily for a quick index as to whether the river was in the designed channel. The dashed lines are placed merely for reference. The witness made a study to determine whether the Missouri River was in the designed channel at the time of the Iowa-Nebraska Boundary Compact of 1943 and he testified the river was within the

designed channel with the exception of something in excess of 2,000 feet.

The witness has outlined on this series of maps the tracts of land which the State of Iowa claims to own. These penciled outlines of the tracts are placed more accurately than the dashed line designating the present channel because he was able to place the area drawn by Iowa in their list of areas claimed (Ex. P-2651) underneath the tri-color sheet on a light box and trace it. The scale of the plats of areas Iowa claims attached to Exhibit p-2651 are the same scale as the tri-color maps with some small differences, but they fit very well and by using the light table he was able to trace them so they would be accurate. However, to go out on the ground and identify the tracts is a different story.

These tracts were numbered by Mr. Brown on the various maps and many of them extended across the 1943 Compact line and into the State of Nebraska. The numbers assigned to these various areas are not necessarily the same numbers as those shown on Iowa's list of claimed areas since Iowa's list identified some areas numbered differently from the photographic maps attached.

Evidence was presented by Plaintiff with regard to several specific areas along the Iowa-Nebraska border. These areas are treated individually commencing upstream and working downstream toward the Missouri border.

Winnebago Bend and Flowers Island

An action was filed by the *United States of America, Trustee and Guardian for the Winnebago Tribe of In-*

dians, *Plaintiff v. Wilbur Flower, et al.*, in the United States District Court, District of Nebraska, Omaha Division on December 4, 1934, to quiet title to certain land in Thurston County, Nebraska, which was on the left bank of the Missouri River. The Petition alleged that the Winnebago Indian Reservation was riparian to the Missouri River on the right bank and the river moved gradually and imperceptibly in an easterly direction until in the spring of 1911, or about such date, the Missouri River, by avulsion, abandoned its channel and suddenly and perceptibly formed a channel further west. The pleadings were offered as Exhibit P-2661. On September 14, 1937, the State of Iowa, on the relation of John H. Mitchell, Attorney General of the State of Iowa, filed a Petition for leave to intervene. Iowa alleged that the land included in the plaintiff's bill of complaint existed on the east side of the Missouri River and: "Par. 6. That in order to protect its rights as a sovereign in and over a territory belonging to it, and to save and protect its rights to assess and collect taxes on said lands as aforesaid, this intervener desires to intervene in this cause on the side of the defendants and to adopt paragraphs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 of the Answers of the Defendants, Wilbur Flower, State Bank of Winnebago, and Ernest J. Smith, Receiver of the State Bank of Winnebago, heretofore filed herein." The Answers of those defendants, in general, denied that the lands were in any way accretions to the lands of the Winnebago Indian Reservation and alleged that the land built up by accretion to land in the State of Iowa. The Answers also stated:

"Par. 11. Answering paragraph ten of the bill of

complaints, these answering defendants admit that the Missouri River has by avulsion abandoned its channel and formed a new channel at numerous places throughout its course, which is a common characteristic of said river, that these answering defendants specifically deny that at the time alleged in said paragraph of said bill, the said river, by an avulsion, formed a channel which now constitutes the western boundary of the land here in controversy, as described in paragraph one of the bill of complaints.”

These Answers further alleged that the lands were wholly within the State of Iowa and were either originally surveyed or platted as being within the State of Iowa or were lands that have accreted to said lands within the State of Iowa.

On October 8, 1937, the Court file shows a Memorandum Concerning Intervention of State of Iowa entered by J. W. Woodrough, U. S. Circuit Court Judge, which states that, when the case was called for trial, the State of Iowa appeared and asked leave to intervene on the side of defendants and such leave was granted. On further consideration, the Court concluded that the pleading of the state was insufficient in law to justify the intervention. The Court stated in the memorandum:

“As I view the testimony there is proof that part of the river bed was abandoned by the river and it has been shown that a least some part thereof belongs to the State of Iowa and the state would be entitled to contest the apportionment of such abandoned river bed. Accordingly, unless the state shall elect to amend within twenty-days (sic) its intervention will stand dismissed.

Final decision of the case will be deferred until

indication is made whether the state of Iowa desires to amend."

On October 29, 1937, the State of Iowa filed a Withdrawal of Petition of Intervention signed by the Attorney General of Iowa and an Assistant Attorney General in which they withdrew their petition of intervention "without prejudice to said intervener" and Judge Woodrough entered an order granting Iowa leave to withdraw without prejudice. On that same date, Special Findings of Fact and Conclusions of Law were entered by the Court. The Court found that there were two avulsions in the area. One occurred between 1870 and 1879 leaving some Iowa land on the right bank of the Missouri River immediately following the avulsion but which presently is again on the left bank of the Missouri River. The Court also found that the evidence showed the channel upstream from or above the aforementioned avulsion made substantial movement to the eastward and there was then an avulsion in 1916 which left Nebraska land on the left bank of the Missouri River.

There was a final judgment entered and the case was appealed to the Circuit Court of Appeals, 8th Circuit, which entered an opinion in the case of *United States v. Flower, et al.*, 108 Fed. 2d 298 (Dec. 27, 1939). The Circuit Court of Appeals affirmed the District Court and recognized the 1916 avulsion leaving land belonging to the Winnebago Indian Tribe on the left bank of the Missouri River. The Nebraska State Surveyor placed the description contained in the Judgment on Mandate in the case of *U. S. A. v. Flower* on the 1946-47 tri-color map (Ex. P-2661-A) showing the tribe's Nebraska land on the east

side of the Missouri River with an exception of a small tract which was not in issue and which everyone admitted belonged to a private owner.

Mr. Leo M. Peterson, age 70, of Silverton, Idaho, testified by deposition taken February 8, 1969 in Wallace, Idaho. He has been a retired surveyor since January of 1962 and prior to retirement was in Alaska two and one-half years as Chief Cadastral Engineer for the Division of Lands, Department of Natural Resources. His duties were to advise on the selection of the 103,000,000 acres granted to the State of Alaska by the Federal Government on Statehood and after obtaining those acres to advise and consult on the Federal Government portion of it in order to give the State title to the lands. He was also to advise and direct the state surveys for disposal of the lands. Prior to this employment he worked practically all his life with the Federal Department of Interior, starting in 1916. He was associated with surveying and surveying work all the time he was with the Department and in 1959 was presented by the Secretary of the Interior with the Department's highest honor, a distinguished service medal, and his name appears on a plaque in the Department of Interior Building in Washington.

Mr. Peterson testified that some time in the 1920's he had occasion to survey lands along the Missouri River in connection with the investigation of lands which might belong to the Winnebago Indian Tribe (Pl. Ex. 1 Peterson). He commenced the survey in 1927 and copies of some of the maps which he obtained are in evidence (Pl. Ex. 2 Peterson, through Pl. Ex. 6 Peterson).

Mr. Peterson's field notes obtained from the United States Department of Interior Bureau of Land Management were offered in evidence (Pl. Ex. 12 Peterson and Ex. 13 Peterson). Mr. Peterson circled an entry on page 15 of his field notes (Pl. Ex. 13 Peterson) which indicated that he identified two bearing trees which Surveyor Beaman had marked in 1875 in the original government survey of Nebraska. One of these was a standing and live cottonwood, 34 inches in diameter and the other was found to be the outer rim of an old tree, partially decayed and burned, visible in a stump hole indicating the tree was over 30 inches in diameter. Mr. Peterson circled the location of these trees in green on a copy of the plat of his 1927 survey (Pl. Ex. 9 Peterson). These trees appear on the east or left bank side of the Missouri River as it was flowing at the time of the survey in 1927. Mr. Peterson also testified that in Beaman's survey of 1875, Beaman meandered the ordinary high water line of the right bank of the Missouri River through this area and Mr. Peterson made a recovery of that line with his survey and placed it on Plaintiff's Ex. 9 Peterson. He retraced that bank on Plaintiff's Ex. 9 Peterson which is all on the left bank side of the Missouri River. Part of this recovered line generally followed the foot of a sloping bank several feet high. The Nebraska State Surveyor testified that this bank is still visible today.

Mr. Peterson also testified that, in connection with the bearing tree which he found standing and circled in green on Exhibit 9 Peterson, he chopped into the scar with right angle blows at the bottom of the cut and found that this was a deeply embedded scar and the sur-

face area had been squared off with an axe cut; and in counting the rings outward on the lower right angle cut to the axis of the tree, he found the number of rings approximating the number of rings back to 1875. This was the date of the Beaman survey.

From the study of the area and the result of this survey, the witness concluded that there was a small area in fractional Sections 17, 18 and 19 of Township 26 North, Range 10 East that had never been washed away by the river since either 1852 or 1875. He outlined in yellow the area that was Nebraska land which appeared in 1875 in the Beaman survey and never washed away (Pl. Ex. 10 Peterson). This is a crescent shaped area between one-quarter and one-half mile east or southeast of the Missouri River on the left bank side as the river flowed in 1927.

Mr. Peterson also obtained affidavits at the time he did his survey and these accompanied his report of March 21, 1928 concerning investigation of the status of the Winnebago Indian Lands (Pl. Ex. 15 Peterson and Pl. Ex. 14 Peterson). One of these affidavits by D. D. Whitcomb dated January 19, 1928 states:

“ . . . During the first night we were on the land I heard loud roars and noises such as the river would make when cutting heavily. The next morning I discovered that the river had broken through along the Nebraska bluffs and that the main channel of the Missouri River was between our camp and the Nebraska bluffs and was flowing in a southerly direction. Later I found that the river broke through because of an ice gorge. About two days after we came to this place some indians (sic) came and took my brother and one

of the Londrosh boys back to the Nebraska side. Myself and the other boy stayed on the land which was now an island. We had our camp on land that was somewhere in the vicinity of where Flower's house now stands. We were on high land covered with big timber. The indians (sic) assured us that we were safe, that the island had never overflowed and probably never would. I do not know who the indians (sic) were that came to us on the island. Myself and Londrosh were on the island for about 7 or 8 days before the indians (sic) came the second time and took us off."

The witness testified he only used the affidavits as supporting evidence in preparing his report and probably to a lesser extent than what he actually found on the ground.

Mr. Peterson's plat which was prepared in 1927 and entitled Plat No. 2 Investigation of Winnebago Indian Lands Group No. 56, Nebraska, also shows a cut bank 12 to 15 feet high just to the left of what he called on his survey an "Outside Chute". This Outside Chute appears on the A. P. maps and other Corps of Engineer maps and aerial photographs of recent years.

It also shows up clearly on defendant's Exhibit D-1152 and on the Alluvial Plain maps (A. P. 2).

Willis Brown testified that on April 21, 1969 he retraced a portion of the Peterson Retracement of the Beaman survey of 1875 on the Iowa side of the river in the Flower Island area. He found at least 6 or 7 of the brass caps placed by Mr. Peterson in his 1927 survey. Mr. Brown testified that it was his opinion that these caps were undisturbed because they were all facing south and,

when he was working with the General Land Office it was the instruction of that office that the date on all brass caps set be placed on the south. Photographs were offered showing these caps (Ex. P-2656 through P-2660) and they were located on a copy of the Peterson survey (Ex. P-2655). Mr. Brown testified that he didn't hunt for all corners and where the bearing tree was which Mr. Peterson referred to there was about 10 feet of sand.

Mr. Brown also testified that these corners were found along the geographical feature testified to by Mr. Peterson. Around the eastern area it followed, as he described in his notes, at the toe of a bank, and these banks compare favorably with the height he gave the banks on his survey. Some areas had filled in with sand. To the west of this area is a sizeable lake and then beyond the lake is an area covered with high sand dunes.

The fact that Mr. Peterson's corners are still in existence and undisturbed conclusively proves that this land has not been washed away by the Missouri River since 1927 or the date of the Peterson Survey. Therefore, this is still original Nebraska land and the Missouri River flowed entirely through Nebraska at that point at all times following the 1916 avulsion recognized by the Court in the *Flowers Island* case until the Iowa-Nebraska Compact of 1943, at which time the land was ceded to Iowa with the supposed safeguard the title would remain good in Iowa.

The Alluvial Plain map upon which the Compact was based for this area, A. P.-2 shows the designed channel in the Flowers Island area or Winnebago Bend as being

through Nebraska bank with willows between the designed channel and the Missouri River. This is also shown on the 1939 Project & Index Maps (Ex. P-414). In 1939, the Corps of Engineers dug a canal through the right bank to place the Missouri River in the designed channel in the Glovers Point-Winnebago Bend area and this canal is clearly shown on the right bank on the 1939 Corps of Engineer aerial photograph (Ex. P-1878). Mr. Brown marked this canal in red. It is shown going through the Nebraska mainland and some of the crescent shaped area which Mr. Peterson testified was original Nebraska land is visible on the left bank side of the river. Consequently, there was an additional man-made avulsion in the Winnebago Bend area created by the Corps of Engineers by the canal. However, at the time the Corps of Engineers dug the canal in 1939, the river was already completely in Nebraska because of the avulsion described in the case of *U. S. v. Flower* and what the Corps did was just move it further over into Nebraska. At the time of the Iowa-Nebraska Boundary Compact of 1943, the entire title to the river was in Nebraska claimants since they owned both banks of the Missouri River and their title extended to the middle of the main channel from each side.

After the Iowa-Nebraska Boundary Compact, the Missouri River then moved again south and east in the Winnebago area where the 1939 canal had been dredged and worked its way back into what was then Iowa shore. In 1961, the United States of America filed an action to condemn an easement to construct and maintain channel improvements in the same location as the 1939 canal

and the designed channel of 1943. The pleadings in the Nebraska case were offered as Exhibits P-2684 and contained a map which shows the designed channel and the 1959 Missouri River bank line. The Corps of Engineers dredged another canal through the location of the 1943 designed channel and placed the river by an avulsion back in that designed channel. The witness, Larry Hart, on a copy of the A. P. maps (Pl. Ex. Hart 1) outlined Flowers Island in black and circled in red the original Nebraska land and put an "N" within it. He also showed where the river was running in 1939 and 1940 and marked in red where the canal was dug. The witness Huber also shows two canals in Winnebago Bend, one before and one after the 1943 Compact (Pl. Ex. Huber 1). Iowa is apparently claiming the area from the Iowa-Nebraska boundary as established in the middle of the designed channel of 1943 to the extreme easterly portion of where the river had moved following the Compact. However, the movements of the river following 1943 never washed away the original Nebraska land as surveyed by Mr. Peterson and as further evidenced by the corners which are still in place and undisturbed today. Consequently, the entire river since 1927 has been in Nebraska or in land ceded by Nebraska to Iowa. Iowa is required by the Compact to recognize the Nebraska titles which include title to the bed of river.

The case of *U. S. A. v. Flower* found that the boundary line between the States of Nebraska and Iowa was along the east and west center line of what would be Iowa Section 28 and the land south of this line was awarded to the Indian tribe as Nebraska land. On July 20, 1956,

an action was filed in the District Court of Iowa in and for Woodbury County captioned *Clyde Kirk and Maxine Kirk, Plaintiffs, v. Douglas Wilcox, et al.*, which joined the State of Iowa and Woodbury County, Iowa, as defendants. This action described land immediately adjacent to and north of the east-west center line of Iowa Section 21 and the Petition alleged:

“6. That the defendant, State of Iowa, has an interest in this action in that the East and West center line of said section twenty-eight (28) herein referred to is the boundary line between the State of Iowa and State of Nebraska and the location and establishment of said center line affects the jurisdiction of the State of Iowa and that the State of Iowa may also be interested in a determination of the western boundary line of the accretions herein claimed by the plaintiffs.

7. That the defendant, Woodbury County, claims, or may claim, some interest in the said premises by reason of unpaid personal taxes of parties other than the plaintiffs herein.” (Ex. P-2339).

The State of Iowa filed an Answer admitting some of the allegations in the Petition but denying others because it “. . . has neither knowledge or information sufficient to form a belief as to the truth of the allegations. . . ” The Answer was filed by George West, Assistant Attorney General, Attorney for Defendant, State of Iowa. The Court entered a Decree on November 20, 1956 which recited:

“ . . . and the defendant, State of Iowa, appearing by its Assistant Attorney General, George West. The plaintiffs and the defendant, State of Iowa, being ready for trial, it is ordered that hearing on the

issues joined between the said plaintiffs and the said defendant be now had. The said defendant having filed Answer herein denying the plaintiffs' petition because of lack of knowledge and information, now admits that for reason of information since obtained that the plaintiffs are the owners of the real estate described in the plaintiffs' petition as accretion land"

The Court then found that the plaintiffs were owners in fee simple of the property described and that the defendant, State of Iowa, had no right, title or interest therein. The Decree also recited that, by agreement of the parties, it was further adjudged and decreed that the plaintiffs "... shall protect any interest which the State of Iowa may have in the matter of its jurisdiction along the center line of said Sections Twenty-Eight (28) and Twenty-Nine (29) extended westward to the Missouri River at the plaintiffs' own cost." (Ex. P-2339). The decree is shown as approved by George West, Assistant Attorney General of the State of Iowa. The index map prepared by Mr. Brown describes this land and he has placed the description of the land as shown in the decree on the 1946-1947 tri-color map (Ex. P-2661-A). He has also shown on the tri-color the land included within the decree in *U. S. A. v. Flower*, and the *Kirk v. Wilcox* land abuts the *U. S. A. v. Flower* land on the north. Consequently, although there would have necessarily been abandoned channel along the boundary of the land decreed to be in Nebraska by virtue of the avulsion recognized in the *U. S. A. v. Flower* case, Iowa made no claim to this abandoned channel in the case of *Kirk v. Wilcox* and the decree indicates that Iowa was only interested in pro-

tecting its jurisdiction and was making no ownership claims to abandoned channel in that area.

The land adjacent to and immediately north of the *Kirk v. Wilcox* area was also the subject of a quiet title action in the District Court of Iowa in and for Woodbury County in the case of *Douglas Wilcox, Plaintiff v. Adah L. Pinney, et al.* The Petition was dated October 30, 1956 and joined as defendants Woodbury County, Iowa and the County Auditor of Woodbury County, Clyde Kirk, and Sybil Jaaron, an aunt of the witness Jerry Jaaron. There were other individual defendants but the State of Iowa was not a party (Ex. P-2338). The Court quieted title to the land described and Mr. Brown has shown it on the index maps attached to Ex. P-2338 and on the tri-color map (Ex. P-2661-A). This area is adjacent to and immediately north of *Kirk v. Wilcox*. The area to which title was quieted includes a considerable amount of land between a topographical feature shown as a bank line and the Missouri River.

The case of *Wilcox v. Pinney* was appealed to the Iowa Supreme Court and an opinion rendered by the Court on October 20, 1959 found at 98 N. W. 2d 720 (Ex. P-2338). The opinion includes a drawing which shows the land described as extending from a "chute" on the east over to the Missouri River. This feature is also visible on the 1946-47 tri-color map (Ex. P-2661-A).

The Winnebago Bend situation is significant for several reasons. It points up an inconsistency in Iowa's conduct concerning abandoned river beds. The State was aware of the fact that there was abandoned bed in the

Winnebago Bend vicinity as shown by their participation in the *Flower's Island* case. Yet they were making no claim to such beds prior to the adoption of the Compact. They made no claim to the abandoned bed in the *Kirk v. Wilcox* case and are not claiming it today. However, the State is presently claiming lands in Winnebago Bend which were ceded to Iowa by Nebraska by the Compact.

Blackbird Bend or Kirk Bar

Iowa's discriminatory treatment against Nebraska landowners is further illustrated by their actions in Harrison County, Iowa, in the area known as Blackbird Bend. This land is shown on sheet number 72 of the 1946-1947 Corps of Engineers tri-color map and is between river miles 725 and 720 north of Decatur, Nebraska, and just to the west and a little north of Onawa, Iowa, and Blue Lake. The tri-color map (Myrland Exhibit 1) shows what appears to be a large bend which had developed to the east with substantial water area and marsh along the eastern side of the bend, but the river today is at one point about three miles west in the designed channel. The testimony of Mr. L. C. Myrland of Onawa, Iowa, was offered by deposition taken on December 19, 1967. Mr. Myrland, age 69, was the Monona County Assessor appointed by the Monona County Board of Supervisors and the Monona Board of Education and the Mayors of the ten existing towns in the County. He was first appointed Monona County Assessor on November 1, 1949, and has held the position continuously since that date. His duties were to assess properties, real and personal, and included

the duty of locating and placing upon tax rolls real estate which has not previously appeared on the tax rolls. He testified that Monona County is bordered on the west by the Missouri River and some of the land on the western edge might disappear and some new land might re-appear after river changes. It was necessary for his office to make some kind of adjustment in the records when this happened to the land on the western border. The supervisors had hired an engineer or surveyor to survey land along the river about six years ago but none of the land thus surveyed had been placed on the tax rolls as yet because the Monona County Board of Review, who was his governing body, asked that the entire survey all be placed on at once.

Mr. Myrland was referred to the 1946-1947 tri-color (Myrland Exhibit 1) and drew in red the high bank of the old Missouri River which would be the east high bank prior to 1952. This line which he has outlined in red goes around the apparent former easterly bend of the river to the left bank side of the water and marsh area and shows, riverward and to the west of that line, approximately eight sections of land (5,120 acres). Mr. Myrland testified there had been a survey of the land between his red line or high bank and the river done by Mr. Virtue, a surveyor, for Mr. Lakin who claimed to be the owner of some of this land. He thought Mr. Lakin claimed approximately 2,000 acres. He didn't know the acreage embraced between his red line and the river but testified the Lakin survey included parts of Sections 19, 20, 24, 25, 28, 29, 30, 31, 32, 33 & 36, Township 84 North, Ranges 46 and 47 West. Mr. Myrland testified that this

land was not on the Iowa tax rolls at present but the land east of that high bank is presently on the tax rolls. He testified that they called this land accretion land and they don't call it bar land. They called it accretion land without any particular technical reference to how it actually formed.

The witness testified that after the land descriptions and acreages are entered on the tax rolls for the purposes of assessment, the County Auditor is the one who finds out, if he can, the owners and the Auditor will place it on the tax books. However, the witness makes a determination of land that is exempt from taxation either by state ownership or for some other reason. He testified that there was some land within the area defined by his red line which lies against the river which the State Conservation has title to. As he remembered, this was about 200 acres and was along the west edge of sections 24 and 36 along the river. He had no information as to how the state obtained the title for that land. There was a deed filed and he thought this deed specified them purchasing it from Lakin sometime within the last year.

The witness testified that the County Board had hired two surveyors to conduct this survey of these bottom lands, Jack Virtue and Larry Hart. He estimated that the first part of October (1967) the engineers estimated that 8,500 acres of land in four townships would be placed on the tax rolls when the surveys were completed.

Mr. Myrland testified that the area enclosed within the red line which he has drawn on Myrland Exhibit 1

and the Missouri River had not been on the tax rolls during his tenure of office.

Mr. Jack Virtue of Onawa, Iowa, age 37, testified by deposition taken December 16, 1967, that he is a registered engineer and a land surveyor licensed to practice in the State of Iowa. He had been a licensed land surveyor since 1956 and had been engaged by the Monona County Board to make some surveys for Monona County along with Larry Hart, another land surveyor from Onawa. They had been asked by the Board of Supervisors to extend congressional land lines (from the existing records available) to the ordinary high water mark or the 1943 Compact line to allow Monona County to tax various tracts of land that are now being farmed and utilized and not on the tax rolls presently. They had been engaged in that endeavor about four years, although doing other work in addition. He and Mr. Hart worked together and the survey was about 95% complete.

His best guess as to the amount of acreage that might be added to the tax rolls was in the neighborhood of 7,500 to 8,000 acres although they probably had to survey 70,000 acres in order to pick up lines as they exist and extend them from both the north, south, east, and west directions. The witness had done surveys in the vicinity of the so-called Lakin-Peterson land in Monona County which was the area probably more well-known locally as Kirk Bar. Mr. Virtue identified on the 1946-47 tri-color map, Myrland Exhibit 1, the area generally bounded approximately by the red line as the Lakin-Peterson land or Kirk Bar. In this area, the witness had extended congressional land lines and did some

surveying for the partition agreement between Mr. Lakin and Mr. Peterson. He also did some surveying in that area on behalf of the State of Iowa Conservation Commission. His instructions from the State Conservation Commission, by letter dated October 15, 1963, stated:

“Dear Mr. Virtue,

This letter is to confirm our conversation on October 10, 1963.

Please survey the agreed-upon boundary between Lakin and the State of Iowa in Sections 25 and 36 of T84N, R47W and Section 1 of T83N, R47W.

This line is to follow the ordinary high water line from Lakin's north boundary to the intersection of said O. H. W. line and a projection northwesterly of the chord between the two corner posts at the northern end of the proposed fence line. Then follow the fence line—marked by steel posts set in concrete—to the Iowa-Nebraska compromise boundary line which appears to be just a short distance south of the recently surveyed line between Townships 83 north and 84 north.

From the intersection of the fence line and the State boundary please determine the State boundary and left bank of the abandoned channel to connect with Larry Hart's survey at the north line of Section 8, T83N, R46W.

When determining the abandoned channel tie the left bank to the Iowa-Nebraska boundary line at a point 20 feet southeasterly from the southernmost extremity of the slough in the abandoned channel. This location is approximately 2,150 feet southeasterly from the northwest corner of Section 6, T83N, R46W.

The survey should be platted showing ties to recently established civil corners and property lines

and the notes indexed and in legible condition'' (Vol. X, p. 1312).

The letter was signed by Lloyd Bailey. Virtue proceeded to make the survey in part by traversing the area from Mr. Lakin's north line down through and on the fence that had at that time been erected and to the southern end of said fence and then waited until Mr. Hart had extended the 1943 State Line to the intersection mentioned in the letter and then they made the actual intersection in the field. A representative of the State Conservation Commission accompanied him or gave him instructions when he did this work. He had conversations with Jerald Jauron about running this line but they were not official instructions. The witness was present at a meeting on the bank of the river when this stated agreed-upon boundary line was more or less established. He wasn't actually with Mr. Jauron or Mr. Lakin when they agreed upon the boundary as he was checking some hubs along the ordinary high-water line at that time. But as a result of that agreement, Mr. Jauron told the witness as soon as Mr. Jauron got his fence built, to run along it. The witness didn't remember any conversation to the effect that that was supposed to be the high bank line.

He was asked if there were any visible signs of a bank line east of the high water mark which he surveyed for the State of Iowa and he said there were several. The number would depend upon which course you decided to start on and which direction you went. He would say on an average there were about probably three, but in some cases there are less than that and some more than that. Referring to Myrland Exhibit 1,

the witness sketched in a rough approximation in green and placed three irregular lines indicating old visible high bank lines. Mr. Virtue agreed with Mr. Myrland for a portion of the high bank line indicated in red but he went further easterly about a half a mile on the eastern side of the area. This is outlined in green and includes land in Sections 28 and almost an additional one-half section in Section 33. There is some water or marsh area shown along a portion of the outside of this bend. Then Mr. Virtue placed two green lines closer to the river within the bend, both of which represented old visible high bank lines. The one to the farthest west or closest to the river represented within 500 feet the line he surveyed for the State of Iowa. The topography along that line was sand dunes with heavy timber and some small brush. There was no water there. There is another green line representing an old visible high bank line to the east of this line but to the west of the Myrland high bank line.

Mr. Virtue testified that, during the period which he had been active in this area, there has been clearing of timber going on. In the last seven or eight years he estimated there has probably been 1200 to 1500 acres cleared on the Kirk Bar. The witness was reasonably sure that the Lakin-Peterson agreement was filed of record. The agreement between Mr. Lakin and the State of Iowa was part of an equity action to quiet title and he was not furnished with a copy of that agreement in order to make his survey. He just got the letter of instructions.

Mr. Virtue marked on Exhibit Virtue Sheets 1 and 2

(Ex. P-2225 and P-2226), which are copies of the drawings he made for the Conservation Commission before the originals were sent to Mr. Bailey of the Conservation Commission in Des Moines, the ordinary high water line in green and, to the east of it, the agreed-upon fence line which is shown in red. This ordinary high water line followed the line of apparent end of vegetation.

The witness was asked about the reference in the instructions from Mr. Bailey to the "slough in the abandoned channel" and stated that, when they built the fence, they didn't build the fence through what the witness would call the slough. Part of the fence was northerly and part of the way it was westerly. There was not a hollowed-out visible abandoned channel at that location. The land between the ordinary high water land and the agreed-upon line was very irregular and in timber and brush covered with largely sand content that was visible upon the surface. The elevations varied in this tract as much as 20 feet with some of the sand dunes blown up into small hills. Where the agreed-upon line varies along the slough, there would be the bank line between the slough and the agreed-upon line. The state boundary line was determined by Mr. Hart and appears on Virtue Exhibit 1 as 500 foot chords.

The witness was asked to describe the land between the Myrland high bank and the Missouri River and he stated that some of it was under cultivation but the area west of the agreed-upon line with Iowa had not been cleared nor was it under cultivation. There are areas where water stands a good part of the year. One such area in the north part of Section 29 was circled and that

has existed for five or six years and has a beaver dam which holds back some water. He circled an area between Sections 19 and 20 which holds some water on both sides of the road and there were some water areas in Section 24 immediately to the river side of the existing levee which the witness marked. In approximately the east quarter of Section 19 which is riverward from the Myrland high bank there is a set of buildings.

The witness was present when Mr. Jerald Jauron made a statement about the kind of land the State was interested in. He thought that Mr. Lakin and Mr. Murray were also present. This conversation took place when they had just gotten out of a boat at the southeast corner of Section 36 which is within the area referred to. There had been discussion about this agreed-upon line and the statement, as the witness remembered it, was to the effect that "We are not interested in agricultural land." He assumed the "We" indicated the Conservation Commission.

Upon redirect examination, the witness clarified his testimony that the agreed-upon line was east of the high water line.

Mrs. Bertha Kirk testified by deposition taken on December 19, 1967, that she was the widow of Joe Kirk, Sr., who had passed away five years ago from the previous August. Her own place was northwest of Onawa where they had lived all these years and Kirk Bar is nearly straight west of their house. She and her husband at one time owned the land that had been known as Kirk Bar. Joe Kirk built the cabin and as she re-

membered they went in a boat over to it about 1915. This would be the year the cabin was built or along about that time. A photograph of the log barn which her husband built to the east and a little bit north of the house is in evidence (Kirk deposition Exhibit 1). Mrs. Kirk also identified a photograph of the log cabin which they built. The cabin was built before the barn (Kirk deposition Exhibit 2). Mrs. Kirk then circled the place where the cabin was on Myrland Exhibit 1 and wrote the word "Cabin". This appears in Section 19 riverward from the Myrland high bank and just south of the two areas which Mr. Virtue identified as having standing water on both sides of the road.

When they first went to the cabin the witness testified that they went in a boat. There was high bank and there was all bayou in there and they went across in a skiff. They had to cross water from the north side north of the cabin down onto the bar. Later on, they built a road in there and put in willows and about everything he could get and finally got a pretty solid road there with a lot of dirt and willows and everything. She didn't really know how wide the water was that they had to cross to get over to the cabin but it was pretty wide. At one time the water went all the way around Kirk Bar. She couldn't identify the date but it was "after even we built the house". She thought the water connected up to the Missouri River. When they first started going over there the ground was just some little willows. It was real sandy with sand knolls and small willows and cottonwoods. They later sold the land on Kirk Bar to Raymond and Henry Peterson. The cabin which she

referred to is still on the land today. She didn't think the barn was still there because Mr. Kirk built a different barn later on. The house is there though.

On cross-examination, Mrs. Kirk again stated she didn't remember exactly how high the water was which they crossed in the boat to get to the cabin but she said the water was moving there with a kind of current. There was a current down there. She repeated that they first built the cabin along about 1915. It was a pretty big river then. Although she had never traveled the length of the bayou, she said her husband probably has lots of times and it came from the north from the river and went around to the south.

Mr. Merle Cutler also testified by deposition taken December 19, 1967. He was born in 1911 in Lincoln Township in Monona County, Iowa, which is north and west of Onawa. The witness had heard of Joe Kirk probably as far back as 1917 or 1918. He first got to know Joe Kirk personally in about 1923 or 1924. He did a little work for Joe Kirk in 1925 and before that he just knew him as a neighbor. The witness testified he was familiar with the area known as Kirk Bar. The area circled by Mrs. Kirk was the location of the old cabin which Joe Kirk built.

The witness circled the farm which Joe Kirk bought north of the cabin site which is about 90 rods north of the cabin and half a mile south of Maple Landing. The witness was born and raised about two miles northeast of Maple Landing. He also marked the Kirk home place to the east of Kirk Bar about a mile and three-quarters.

He remembered the road which Joe Kirk built to get out to the cabin and testified the road is still there. Joe Kirk had put brush in on the water and when the river was low he got in with a spade and spaded the dirt up on the brush. The road was built before the witness' time, but when the witness first became familiar with it, it was water at high times of the river. When the river was up, there would be water running across the road and there was a little dirt sticking out with a couple of roots, ditches that they drove in with the wheels of a wagon or car running down on the brush and running clear through the dirt. There were a couple of tubes put in that road which the water ran through at low times and of course, when the river was up, the river ran over the top of the road. Mr. Cutler marked in black the road where it crossed the water and testified that road went across ". . . that old chute that came around following this high bank around." There were a few willows growing in the chute and there was water about knee deep which was moving back in 1925 and 1926. The most of the year around there would be a little water moving through these tubes in the road. When asked if he ever followed this water around to see how far it went or where it came from, the witness testified that he did at high times when the river was up. He has been clear around there in a boat years ago. The water came from out of the river up west of Maple Landing where the red line starts which was drawn by Mr. Myrland and it ran clear around the bank which Mr. Myrland identified and back into the Missouri River down west of Onawa.

In places, that chute or slough filled in. In about 1934 Mr. Kirk built a levee across about a mile west of the cabin. This was done on a drag line on mats sitting in water about a foot deep. The witness did quite a lot of work on the Kirk Bar and in 1934 when the old cabin had begun to deteriorate, he put three or four new logs under the cabin and put some new windows in it and a new floor. The witness last saw the cabin two days before his testimony and he stated that the cabin is still there now. The road which he referred to is also there but there is a new road on the east side of the old road.

Mr. Dale R. Blankenhorn, a farmer living 5 miles west of Mapleton, Iowa, in Monona County, testified that he had been on the Monona County Conservation Board for about six years and he was also on the Monona County Conference Board composed of the members of the County Board of Education, the Mayors, and Board of Supervisors. They hired the Assessor and his assistant. He had lived in Monona County all his life and is 55 years old. Mr. Blankenhorn identified the area on Myrland Exhibit 1 and said he had been familiar with that particular piece of ground in varying degrees from the early 1930's. It has been land east of the river since the early 30's but has had some water and marsh areas. That property was placed on the tax rolls in Monona County in 1969.

The witness has hunted and fished in the area and said they knew it as English Bayou and this is where he hunted. The area west of it was known as the Kirk Bar. He described English Bayou as for all substantial

purposes what is now known as a small oxbow lake. To get to where they hunted, they went down over a high bank. The witness identified his blind as being just riverward from the Myrland high bank on Myrland Exhibit 1 and stated that they first hunted at that site in 1939. A photograph was offered taken in a northeasterly direction from the blind in 1940 and showing a large amount of water and a high bank (Ex. P-2650). That high bank line is a natural feature. Another photograph was identified by the witness which was taken from substantially the same location but looking southeasterly (Ex. P-2649). This also shows a substantial body of water. Where they had their decoys, the water was wadeable with hip boots if you were careful. Over on the high bank at that time there was approximately 5 to 6 feet of water adjacent to the far shore which was to the northeast.

They later moved approximately a mile south and this area was identified on Myrland Exhibit 1. Their blind was below what the witness called the secondary bank out in the slough. At that particular location, what he considered the actual high bank ran over fairly close to the road and then you dropped down on a shelf and out and then the bank of the actual slough was beyond that. This secondary bank was about where the red line was marked by Mr. Myrland and the green line which was the high bank is the line marked by Mr. Virtue. The water in the vicinity of Blankenhorn Blind No. 2 was similar to the area in Blind No. 1 in that there were areas of deep water next to the bank but as you got out away from the deeper water, the shallow water covered

a wider area. The witness also had been west approximately a half mile and at that time the terrain was under water. There was water and rushes. He identified the area on Myrland Exhibit 1 marked "Cabin" as the site of the Peterson barns and buildings. A man named Lakin, to the best of his knowledge, owned the area where they had Blind No. 2. The present road into the Peterson Buildings crosses the slough immediately north of the buildings and there is a bank line discernible in that vicinity. Mr. Blankenhorn fished in that area and has fished consistently in Blackbird Bend Cutoff. He fished in English Bayou at the time they were hunting ducks.

Photographs of this area taken by Willis Brown were offered by Plaintiff and emphasized the water along the Myrland high bank around Kirk Bar and the height of the bank. These photographs were taken on June 28, 1969, and Mr. Brown located them on the 1946-1947 tri-color (Ex. P-2263) map which is the same base map as Myrland Exhibit 1. Mr. Brown's son appears in some of these pictures holding a 9-foot rod which further accentuates the height of the bank (Ex. P-2709, P-2712, P-2713 & P-2714). There is still a lot of water in that slough or old channel as depicted in these pictures (Ex. P-2711 & P-2715).

On the 1946-47 tri-color map (Ex. P-2663 & Myrland Exhibit 1) the 1890 channel line can be seen to run through the eastern half of the Kirk Bar land and at some places measured from east to west is more than two miles east of the present Missouri River. However, in spite of the fact that Kirk Bar when originally settled was bar area with water from the Missouri River running around

its perimeter, the Iowa Conservation Commission never made any claim to the bar and it was not even on the Iowa tax rolls until 1969. To the contrary, the State of Iowa recognized the claim of title of the Iowa claimants, namely Mr. Peterson and Mr. Lakin, and even went so far as to disclaim title in the Iowa courts.

It is Plaintiff's position that the evidence in the Kirk Bar situation shows that the cabin built by Joe Kirk was built on island or bar land with water flowing around it and a high bank on the left or Iowa side which is still obviously visible today. There is a large amount of water riverward of this high bank and it has the appearance, as was testified by Mr. Blankenhorn, of a cut-off lake. The cabin was built on this bar in about 1915 and has remained until the present time so the area has never washed away or been obliterated by the river. If Iowa's position is that it "owns" all land within the ordinary high water mark of the river, the testimony and exhibits showing the high bank clearly indicate this land would qualify within Iowa's definition of state owned land. However, Iowa has not made that contention in this location against these particular Iowa land owners.

The pleadings in the case of *Charles E. Lakin, plaintiff v. State of Iowa, Monona County, Iowa, et al.*, show that Mr. Lakin filed a quiet title action to the south half of Kirk Bar and joined the State of Iowa, alleging that Iowa makes or may make some claim to a portion of the real estate as abandoned channel of the Missouri River or as lying below the high water line of the Missouri River and plaintiff in that action alleged that the channel of the Missouri River, over a period of years, gradually

shifted towards the State of Nebraska and the area was built up through the process of accretion. This case was filed in the District Court of Monona County, Iowa, on May 7, 1963 (Ex. P-1761). The index maps show the areas included in the Judgment and Decree as being the south half of Kirk Bar except for some land over within a half mile of the river. A Real Estate Sale Contract through which Mr. Lakin acquired the land is also in evidence (Ex. P-1779).

The State of Iowa, after first filing a Motion for a more specific statement and after amendment of the petition by the Plaintiff on November 12, 1963, filed on November 15, 1963, a "Separate Answer And Disclaimer By Defendant State of Iowa" and alleged they made no claim of any right, title or interest in or to the real estate specifically described in plaintiff's amendment to petition and disclaimed any right or interest in said real estate and, on November 15, 1963, a decree was entered quieting title in the land to the Plaintiffs. The index maps attached show that this includes the south half of Kirk Bar and land riverward from the Myrland high bank and the Virtue high bank.

A warranty deed from Bertha Kirk to Raymond Peterson conveying approximately the north half of Kirk Bar for the sum of \$63,000 is in evidence (Ex. P-1760). Also, an agreement of October 30, 1959, is in evidence dividing the approximately 5,000 acres called Onawa Ranch, which the index map indicates is a description of Kirk Bar, into two tracts of approximately 2500 acres each between Raymond G. and Henry K. Peterson and Charles E. Lakin (Ex. P-1778). Also in evidence is an

assignment of interest in a contract from Joe Kirk and Bertha Kirk dated January 2, 1948, and conveying most of Kirk Bar. The assignment indicates that the interest in the land has been conveyed so that Raymond J. Peterson became the owner of approximately the north half of the Kirk Ranch and Charles E. Lakin the owner of approximately the south half of said tract. On October 12, 1964, an action was filed in the District Court of Iowa for Monona County captioned *Raymond G. Peterson, Plaintiff v. State of Iowa, Monona County, Iowa, et al.*, to quiet title to the north half of Kirk Bar. Again, Plaintiff alleged that the State of Iowa makes or may make some claim to the above described real estate as an abandoned channel of the Missouri River or as lying below the high water line of the Missouri River, but the plaintiff alleged that none of it was below the "existing high water line of the Missouri River" or that any portion was within the abandoned channel of the Missouri River and the Plaintiff alleged the Missouri shifted gradually toward the State of Nebraska and the area formed as accretions. The State of Iowa first filed an Answer denying some of the allegations on December 2, 1964, and, after the Plaintiff amended its petition to withdraw the words "and all accretions to the above described premises" and disclaimed interest in these so-called "accretions", the State of Iowa on May 14, 1965, filed a Disclaimer in which they disclaimed any right, title, interest or claim in and to the real estate which includes the major portion of the north half of Kirk Bar. This disclaimer was signed by Lawrence F. Scalise, Attorney General of Iowa, and by Robert B. Scism, Assistant Attorney General of Iowa and Michael

Murray (Ex. P-1755). Consequently, title was quieted in the Plaintiff by decree entered June 11, 1965.

The agreement of January 2, 1948, between Joe Kirk and Bertha Kirk and Henry K. Peterson and Raymond G. Peterson which conveyed the major portion of Kirk Bar states that the consideration was \$126,000. This was a Real Estate Contract (Ex. P-1758).

Iowa also disclaimed land in another quiet title action brought by Mr. Lakin captioned *Charles E. Lakin, Plaintiff v, State of Iowa, Monona County, Iowa, et al.*, in the District Court of Iowa for Monona County filed on April 6, 1965, in which the state was joined as a defendant because it might make claim to some portion of the described real estate as an abandoned channel of the Missouri River or as lying below the high water line of the Missouri River. This disclaimer was also signed by Mr. Sealise, Mr. Scism, and Mr. Michael Murray. The disclaimer of the State of Iowa was filed on May 28, 1965, and on that same day the Court entered a quiet title decree (Ex. P-1757). This area is immediately south of and adjoining Kirk Bar and, according to the description in the Petition and the Decree, includes the east half of the designed channel of the Missouri River (1943 design).

On Kirk Bar, it is incredible that the bar area could have formed as accretion to the bank when the situation still exists today that there is an extremely high bank with standing water remaining in an oxbow configuration adjoining and riverward to that bank. The bar could not have built up to the bank because there is even now water between the bar and the bank.

The law and the application of the law should be the same whether the land is in Harrison County, Iowa or Mills and Fremont Counties. The law should not be such that it can be applied in one area to the benefit of certain landowners and in another area to their detriment.

Middle Decatur Bend

On June 28, 1960, the United States filed an action in the United States District Court for the Northern District of Iowa, Western Division captioned *United States of America, Plaintiff v. 66.95 Acres of Land, more or less, situate in Woodbury and Monona, Counties, State of Iowa; Cylde Kirk, et al., Civil No. 1184*. Among the defendant's listed were Riley J. Williams, Norma Jean Williams, and the State of Iowa and Woodbury County, Iowa, and Monona County, Iowa (see Exhibit P-2693). A plat of the Corps of Engineers showing the land taken in Iowa identifies the area as Middle Decatur Bend (Ex. P-2695). The Complaint filed by the United States indicates that Riley J. Williams and Norma Jean Williams have or claim an interest in Tract No. 103E (Iowa) in Middle Decatur Bend. It also states that offers to sell easements to said lands have been accepted by the United States of America and consents to said offers had been signed by Riley J. Williams and Norma Jean Williams who are shown as Owners. The declaration of taking was filed 6-28-60 and states that the estate taken for public uses,

“ . . . is a perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across the land de-

scribed in Schedule 'A', including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate, dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; . . ."

The estimated compensation for Tract No. 103E is shown as \$2,070.00 and the names and addresses of the purported owners lists Riley J. Williams and Norma Jean Williams, Husband and Wife, Decatur, Nebraska.

The State of Iowa filed a Resistance To Motion For Judgment in which Iowa indicated it had filed an answer in which it claimed to be the absolute and unqualified owner of Tract No. 103E and Iowa alleged that Riley J. and Norma Jean Williams had no right, title or interest in or to said Tract No. 103E. Iowa then stated in its Resistance To Motion For Judgment:

"6. Further concerning said issue, this defendant, the State of Iowa, states that it claims to own said tract because it is either a part of the bed of the Missouri River, being below the ordinary high water mark of the River, or because same is accretion to the State-owned bed of the River.

7. Further concerning said issue, this defendant states that if Riley J. Williams and Norma Jean Williams are Nebraska riparian landowners claiming to own said Tract 103E (Iowa) Middle Decatur Bend as accretion to their Nebraska lands, such claim of ownership has no validity because, under the law, there can be no extension of accretion lines across a fixed and established State boundary line and into the State of Iowa from the State of Nebraska. That this legal issue is now under consideration by the Circuit Court of Appeals for the Eighth Circuit, said

matter having been submitted to said Circuit Court on September 19, 1960. In view of the fact that said legal question is now under consideration by the Circuit Court of Appeals for the Eighth Circuit, this defendant, the State of Iowa, states to this Court that trial of the title question as to Tract 103E (Iowa) Middle Decatur Bend should be continued until a decision has been handed down by the said Circuit Court of Appeals, and all rights and interests of all parties in and to said Tract 103E (Iowa) Middle Decatur Bend should be preserved in status quo." (Ex. P-2693).

This Resistance was signed by Michael Murray as one of the attorneys for the State of Iowa with the names Norman Erbe, Attorney General of Iowa, and James A. Gritton, Assistant Attorney General of Iowa, also appearing in the signature block.

On October 7, 1960, Michael Murray, one of the attorneys for the State of Iowa, sent a letter to Mr. F. E. Van Alstine, United States District Attorney, regarding this case, indicating he planned to be present to resist the Motion for Judgment insofar as it might apply to Tract 103E (Middle Decatur Bend). This letter included the following statements:

"Perhaps you are wondering what the theory of the State of Iowa is in this matter and what a trial as to title might involve: Tract 103E (Middle Decatur Bend) is a tract of land on the West side of the main channel of the Missouri River, but it is in Iowa because it is East of the State line established by 1943 compact. We believe that the tract is accretion land, that is, it is land that has been created in relatively recent times by action of the River. I do not know how or why it is alleged in the Complaint that Riley J. Williams and Norma Jean Williams

own it, but I suspect that they are alleged to be the owners because they probably own the upland Nebraska land immediately West of it, and their claim to the tract in Iowa would be based on the theory that it is accretion to their Nebraska holdings. It may be that Riley J. Williams and Norma Jean Williams claim the tract on the basis that they hold record title to it from the Government going back to the early days. If their claim is based on record title, the State asserts that such record title is of no validity because the land which existed in that location in the early days was washed away and destroyed and it is clearly the law that, when such land is washed away and destroyed, the record title becomes worthless, and land which later appears in the same location is accretion land. The State claims that, if Riley J. and Norma Jean Williams claim the land as accretion to their Nebraska holdings, such claim is invalid because, as a matter of law, there can be no accretion across a fixed State boundary line from Nebraska into Iowa. In this connection, I will say that in 1959, we tried a case to Judge Hicklin at Council Bluffs involving this legal proposition and Judge Hicklin ruled and held that the Nebraskans could not extend their accretion lines across the fixed State boundary line into Iowa. Judge Hicklin held that the tract in controversy was property of the State of Iowa. The Nebraska claimants to the tract perfected an appeal to the Circuit Court at St. Louis and the appeal was submitted there on September 19, 1960. We have no decision from the Circuit Court as yet.

This case is of considerable importance to the State of Iowa for a number of reasons: First of all, it is one of a series of cases which the State has determined to litigate until there is some final answer. Secondly, although that portion of Tract 103E situated in the State of Iowa contains only 22.84 acres, you will see by looking at the plat that there is con-

siderable more land, both above and below Tract 103E which the State claims to own. The decision in the pending case will probably, as a practical matter, determine ownership of the additional land also. I do not seek to argue our case to you in this letter, but I wanted you to know the general nature of the State's position so that you will know what to expect whenever trial of the title question is reached." (Ex. P-2694).

Mr. P. M. Moodie, age 53, of West Point, Nebraska, testified that he is a lawyer admitted to practice in the State of Nebraska since 1938 and actively engaged in practice continuously since that date. He has a client, Riley Williams of Decatur, who has been engaged in litigation with the State of Iowa in Federal District Court sitting in Iowa. The United States started a condemnation proceeding to acquire an easement for channel improvements of the Missouri River across land which Mr. Williams claims to own and an agreement was reached between the United States and Mr. and Mrs. Williams as to the value of this land. The money was paid into Court. When a motion was made to distribute the money to Mr. and Mrs. Williams, the State of Iowa resisted the motion and claimed the money in the amount of \$2,070.00. Mr. Moodie testified that a pre-trial conference was held in Sioux City before Judge Delehant and the matter was set down for trial before the Court without a jury. It was necessary to secure Iowa counsel because the witness is not admitted to practice in the State of Iowa.

The witness and counsel from Iowa did some investigation in preliminary trial procedures. They consulted

with the Corps of Engineers in Omaha on a number of occasions, secured maps, went to Tekamah, Burt County, Nebraska, to secure title records and had some conferences with the Nebraska State Surveyor in addition to interviewing witnesses in the Decatur area. Mr. Moodie testified that the amount of legal expense involved in the investigating stage of the case would approach the value of the lawsuit. They contacted the Nebraska State Surveyor who indicated that they would have to deposit \$300.00 as a preliminary amount to cover the expense of survey and that possibly the survey would cost more than that. It was felt that a survey was a necessary part of the case.

At the pre-trial conference before Judge Delehant, the Judge inquired as to the probable amount of time it would take to try the case, and counsel for the State of Iowa said they had sufficient evidence to present to take between 2 to 3 weeks for the trial of the case. Based upon that estimate, Mr. Moodie said they came to the conclusion that they couldn't afford to try it under any circumstances because, even if the Williamses won, they would lose from a monetary standpoint. The fee schedule in the witness' community would run \$150.00 to \$200.00 per day for services in Federal Court and he believed it is higher in Iowa. The \$2,070.00 that was deposited in the Registry of the Court is still there.

Mr. Moodie also testified that the State of Iowa started a quiet title action against Mr. Williams in 1961 or 1962 in Monona County, Iowa, and last August they started an injunction proceeding against him in Monona County. When the injunction proceeding came on for

trial, it was determined that the State did not have any evidence to support their complaint and the matter was, by agreement, dismissed. The quiet title proceeding in Monona County is still pending so far as the witness knows. The quiet title proceeding involved other defendants and other counsel.

On cross-examination, Mr. Moodie testified that he thought there was some question as to whether the lands involved are now in Iowa. Apparently the United States, when they started the condemnation proceedings, felt there was because they designated this particular tract as being in Nebraska on the maps that were shown to the witness and they determined apparently that Mr. and Mrs. Williams were the proper people to pay the money to. The case was started in the Northern District Court in Iowa but it included a lot of other landowners and other tracts. The reason for saying that there is a question as to whether the land is in Iowa is by reason of the documents that came into the hands of the witness from the United States District Attorney in which the land was designated as Decatur Bend, 103E East Iowa. The map that was furnished to the witness has the word "Nebraska" on it. The caption of the case refers to 66.95 acres of land, more or less, situated in Woodbury and Monona Counties, State of Iowa, so the allegation of the United States was that the land was in Iowa regardless of what the map showed. The pilot canal was constructed across the piece of land that was involved in the condemnation case in Federal Court, and the witness assumes that the Missouri River was diverted through it and it has widened out to its designed width

and is presently in that location, although he hasn't viewed it recently.

The witness further testified that he encountered difficulty in finding maps which were necessary to the presentation of the case and he had to spend considerable time just looking for things.

This case illustrates the disadvantages of the small landowner involved in a title fight with the State of Iowa.

The Walter Pegg Area

Stewart Smith, County Surveyor of Washington County, Nebraska, testified that he prepared a Cadastral Map (Exhibit P-1625) which has a parcel of land outlined on the left bank which is on the Iowa side of the Missouri River but is on the Nebraska side of the Nebraska-Iowa Compact line. A Cadastral Map is a map made for tax purposes depicting ownership boundaries, and in this particular case it was a map with the information overlaid on a print of an aerial photograph. He enclosed the Nebraska area on the left bank of the Missouri River in red and identified "Iowa" and "Nebraska". This map shows both the east bank and west bank of the present stabilized channel of the Missouri River in Nebraska. The area enclosed is in Washington County, Nebraska. The map depicts the "1943 Nebraska-Iowa Compact" line which is now on the left bank of the present river and Mr. Smith testified that this line went down the geographical center of the designed channel as it appeared in the Nebraska-Iowa Compact; and the right and left bank according to a Compact would be 350 feet either side of that

line. Exhibit P-1625 was prepared by the witness in about 1965.

The witness also identified a 1959 aerial photograph (Exhibit P-928) and testified that the Nebraska area which he outlined in red on Exhibit P-1625 is generally the same area which is depicted between the blue line and the Missouri River on the 1959 aerial photograph (Exhibit P-928). The blue line is to the east and the river is towards the west.

Mr. Smith testified that the land enclosed in red on Exhibit P-1625 is on the tax rolls in Washington County. He was requested to make it into tax lots and enter those tax lots in the irregular tract books of Washington County and he later found out from the County Clerk that it was of record in the County Clerk's office and then later on it became of record in the County Assessor's office. It was placed of record about three years ago at the request of Mr. Murray on behalf of some people by the name of Walter Pegg and Wynn. That land is presently being taxed in Nebraska as Nebraska land to Mr. Pegg and Mr. Wynn, although there might be different ownership on it now. The witness worked with the County Clerk and the County Assessor in connection with the tax lot designations for the land and, in Washington County, the County Clerk serves the same function as the Register of Deeds.

Bob Utman, age 48, of near Modale, Harrison County, Iowa, testified that he farms around 500 acres of land belonging to his father-in-law, Walter Pegg. He has been acquainted with the area around the Missouri River most of his life and has hunted and fished on it.

The 1959 aerial photograph (Exhibit P-928) shows the area where the witness lives. He circled the buildings where he lives in red and he outlined the land which he farms. Some of this land adjoined the left bank of the Missouri River. The witness drew in green the old dike line along the river immediately west of his buildings. He testified that there is a bank line which in some places is pretty close to the dike and in other places is out quite a ways. He drew the high bank line in blue on the aerial photograph. There are a lot of dike structures on the high bank east of the present location of the river. They have been filled in around. On some of them crops of piling stick out.

The witness was asked if he had ever had any conversation with any representative of the State of Iowa or the Iowa State Conservation Commission concerning the ownership or the right to occupy the land west of the blue line or high bank and he testified that he had. Mike Murray has gotten title for Walter Pegg on this as Nebraska land on 103 acres. This area was outlined by the witness on the Exhibit in black (Exhibit P-928). On the Exhibit there is an area between the blue line, or what the witness called the "high bank", and the area to the west which he had designated in black and which has been labeled "Nebraska". The witness has never had any conversation with any member or representative of the State Conservation Commission or any other department of the State of Iowa concerning the right to occupy any land lying east of the area outlined with the black pen. The area between the black and blue lines would necessarily have been the east one-half of the designed channel of

the Missouri River according to the Iowa-Nebraska Boundary Compact of 1943.

The witness has never had any conversation with any member or representative of the State Conservation Commission or any other department of the State of Iowa concerning the right to occupy any land lying east of the area outlined with the black pen. Mike Murray has told him that the State of Iowa was not interested in any of that land. Both Gerald Jauron and Mike Murray have hunted on the land and the conversation with Mr. Murray took place before he got title for Mr. Pegg to the piece enclosed in black as Nebraska land. This was done approximately two years prior to the date of the deposition of December 20, 1967. Walter Pegg's title to the land is recorded at Blair where he pays the Nebraska tax.

Between the blue line and the river on Exhibit P-298, the witness testified that "back from the river, there is an old chute which has a little water in it when you get a lot of rain or when the river gets up. There isn't any outlet when the river gets in there unless it gets pretty high. Whenever the river is up, the water seeps up from the bottom in that old chute which is out west of the middle enclosed in black. Mr. Utman said that as you cross the high bank where the blue line is, you go down a bank about six feet at the highest part.

This evidence shows an abandoned Missouri River bed in Iowa which Iowa officials have knowledge of, which the State of Iowa is not claiming and has never claimed.

Tyson Bend

Tyson Bend is mentioned at page 34 of the Planning Report (Ex. P-2609) and the comment is made under "Recommended Action":

"It was in this area that the question of whether or not a Nebraska landowner can accrete across a state line arose. The case was tried in Federal District Court and the owner ruled against. The case was appealed to the Circuit Court of Appeals. The lower courts decision was upheld."

The photographs in the Planning Report show the state line and an island or bar area on the left bank side and then water before the mainland is reached on the Iowa side.

Mr. Jauron was asked if he agreed with statements made by counsel for the State of Iowa in the *Dartmouth College* case describing how the land formed in the Tyson case. The statement which Mr. Jauron was referred to is:

"The facts were that prior to 1946 the main and only channel of the river was the designed channel which was west of the area in dispute in that case. The Iowa-Nebraska boundary was the center of said channel by reason of the 1943 Compact.

In 1946, 1947 and 1948 the main channel left its designed channel and gradually moved southeasterly, washing away all of the land then existing in the disputed area. In 1947 or 1948, two small sandbars appeared in the disputed area behind this southeasterly movement of the main channel, with the main channel flowing to the east of them and with water still flowing to the west of them in the designed channel. Vegetation appeared on the sandbars in 1948 indicating that they were above ordinary high water mark and had attained the status of islands.

Later in 1948, the Corps of Engineers repaired some of their dikes in the area so as to again place the main channel in its designed channel to the west of the islands. The islands were not destroyed by this movement.

In the spring of 1949 the main channel again escaped from the designed channel and moved to the channel east of the islands. This movement of the main channel in the spring of 1949 was also accomplished without destroying the islands.

Water continued to flow through the designed channel until the 1952 flood, during which it became filled with silt and sand. The main channel continued to flow through the channel east of the islands until about 1959 when the Corps of Engineers again repaired their dikes so as to again place it in the designed channel. The 1959 movement was also accomplished without destroying the islands." (Vol. XXV, pp. 3659-3661).

He agreed with all of this statement except in the last paragraph. He did not agree that "the '43 Compact line was filled by the '52 flood—that channel." That was the only part he disagreed with and he said "it still runs water." (Vol. XXV, p. 3661). This case was decided by the United States Court of Appeals, Eighth Circuit and is found at 283 Fed. 2d 802 (1960).

This area appears on Sheet No. 68 of the 1946-47 tri-color maps (Area # 21 on Ex. P-2667) and Sheet No. 5 of the A. P. maps (Exhibit D-1158). It borders the Missouri River on the present Iowa side. The testimony of Mr. Jauron, who is also mentioned in the opinion as testifying to the physical facts in the Tyson case, establishes that the river was in the designed channel where the Compact Boundary Line is located, that it moved into

Iowa and an island built up behind this movement of the river and the river was then placed back in the designed channel without destroying the island. The Eighth Circuit based its opinion upon the fact that all of the land involved arose in Iowa and that the lower court found that the entire river bed was located in Iowa and the State owned the entire river bed at the point in controversy. The Court then stated at page 811:

“Lastly, Tysons claim the court erred in stating the Nebraska land owners could acquire no accretion rights to their banks across the fixed state boundary. We have considerable doubt whether the court intended by such statement to say more than that Iowa law controls since all the land in controversy is located in Iowa, and that the Nebraska law of accretion did not operate to create riparian rights within the territorial limits of Iowa. So limited, the court’s view would coincide with our view of the law. If the court intended its statement to have any broader implications, it is our view that the statement was made only as an alternate or an additional basis for supporting the result reached by the court and that the court had already decided the case on the basis discussed earlier in this opinion.

We have held that the court’s judgment is entitled to be affirmed upon the basis of the court’s determination that the origin of the land in controversy was independent islands formed in the bed of the Missouri River, belonging to the State of Iowa and that the additional land formed as an accretion to such island. Such determination is decisive of these appeals.”

This is a situation where had it not been for the Boundary Compact establishing a fixed line between Nebraska and Iowa, the result would necessarily have been

different. If there had been no Boundary Compact, when the river moved out of the channel towards the south and east or into Iowa, the boundary would have moved with the river and the islands forming behind this movement would have been on the Nebraska side of the river and part of the Nebraska riparian owners lands. Then when the river was placed back to the northwest without washing away those lands, there would have been an avulsion leaving the islands in Nebraska although on the left bank of the river. These islands would have remained the property of the Nebraska riparian owner. The State of Iowa in the Tyson case used the fixed state Compact line as the commencement of its ownership, ignoring the fact that the Nebraska riparian owner owns the bed to the middle of the main channel and owns any island or bar areas in that bed.

In the Planning Report, Iowa's Conservation Commission said, "This action will help in declaring islands to be state-owned." (Ex. P-2609, p. 4).

Although it is easy to make the statement that the Compact has no effect upon private titles, it can readily be seen that by merely applying "Iowa law" the Nebraska riparian owner has been deprived of his property rights whenever the river moves to the east following the Compact. If this is the situation, then his title has been severely impaired.

California Bend

One of the areas which Iowa is claiming is in California Bend which is just north of Blair, Nebraska on the

left bank of the present Missouri River. Reference has previously been made to the 1890 Annual Report of the Missouri River Commission which has a map showing the area surveyed in 1883 by Geo. S. Morison and showing a "CUT-OFF 1881." California Bend appears upon the 1946-1947 tri-color map (Ex. P-2627) and the area or oxbow configuration shown as cut-off in the 1890 report (Ex. P-2686) appears as marsh area on the tri-color map (Ex. P-2667) in an ox-bow configuration starting in Iowa Section 35 and curving into Iowa Section 36 and 4. The 1890 "thalweg" which appears on the 1946-47 tri-color map is very close to the same location as the channel of the river as shown in the Geo. S. Morison map in the 1890 Report. This is approximately two or three miles from the present designed channel of the river at various points. This was an easterly bend which was cut off and left on the Iowa side of the Missouri River. Iowa has made no claim to any abandoned river bed or channel in that 1881 cut-off.

In 1938, the evidence shows that the river was to the west and south of this 1881 cut-off in the California Bend area. Sheet No. 15 of the 1938 Project & Index Maps (Ex. P-413) shows the river in an easterly bend with the drawing of the designed channel placed some distance to the west through the peninsula on the Nebraska side of the river. On November 7, 1938, a condemnation action was filed in the District Court of the United States for the Nebraska District, Omaha Division, captioned *United States of America, Petitioner, vs. Certain Lands in the County of Washington, State of Nebraska Hereinafter Described and Dorothy M. Mencke, et. al.* Also included

as defendants were The State of Nebraska, The County of Washington and The County Treasurer or Tax Collector of Washington County as well as all persons having, or claiming to have, any right or title to the several tracts of property described. The pleadings in this case were offered as Exhibit P-2670. Attached to the Complaint were various plats showing the area taken in Nebraska and the Complaint alleged that, in execution of the project for improvement of the Missouri River for navigation to secure a permanent navigable channel 6 feet in depth, it was necessary to acquire an easement to excavate and maintain a channel approximately 900 feet in width across the point of land at California Bend for the Missouri River in Washington County, Nebraska. The Complaint also alleged that the Secretary of War of the United States of America had determined that it was necessary and advantageous to the United States of America “. . . to acquire a perpetual easement to excavate a cut-off channel in, through and across the properties hereinafter more particularly described and designated as Tracts No. 1, 2, and 3, and the perpetual right, power, and privilege to excavate, cut away and maintain as a part of the navigable waters of the United States any or all of said lands hereinafter more specifically described and designated, and to utilize the portions not so cut away or excavated for the deposit of spoil or for any other purpose in connection with the construction, preservation and maintenance of said navigable channel . . .” A Notice of Lis Pendens was filed on November 8, 1938 in the Office of the County Clerk of Washington County, Nebraska by the United States District Attorney

for the Nebraska District (Ex. P-2671). An absolute and perpetual easement was granted to the United States (Ex. P-2670).

Two Agricultural photographs dated 12-15-38 were placed together by Mr. Willis Brown so that they depict the California Bend area as of 1938 and these photographs show the configuration of the river at that time and the location of the Designed Channel which has been located in blue through the Nebraska land (Ex. P-2668). The picture shows fields and a large tree and land area to the east of the proposed designed channel in the cut off area. The Corps of Engineer aerial photograph of 1938 is also in evidence (Ex. P-2380).

Sheet No. 16 of the 1939 Project & Index Maps (Ex. P-414) shows the river running through the Nebraska land which was condemned for the canal and it has been labeled "CALIFORNIA CUT-OFF" with revetment shown on the left bank and further to the east the old river bed is shown and designated "CALIFORNIA BEND". A 1939 Corps of Engineers aerial photograph (Ex. P-2382) shows the river in the designed channel through the cut-off and the large area which is cut off can still be seen as trees, fields and bar. There is still a small stream running around the old channel.

As a part of the case of *U.S.A. v. Mencke* (Ex. P-2670), there was attached a plat of the area (Ex. P-2669) showing the area taken with the designation "CALIFORNIA BEND PILOT CANAL CONTRACT". Ground level photographs from the Corps of Engineers were introduced showing the canal being dug by a drag

line operating from dry land in December of 1938 and showing the canal in January of 1939 (Ex. P-2424, P-2425 & P-2426). Another photograph shows the canal on March 2, 1939 (Ex. P-2427) and then the photographs show the plug being pulled and the opening of California Bend Canal on April 1, 1939 (Ex. P-2428 through P-2432). The plug was opened by a drag line operating from the bank. These photographs illustrate the dramatic and immediate change of the channel in this type of construction. Aerial photographs were also offered from the Corps dated 10-28-39 showing the river in the designed channel and the cut-off area transferred to the left bank.

Mr. Brown then identified a June 1956 aerial photograph obtained from the Corps of Engineers in Omaha showing the river in California Bend (Ex. P-2421), and a 1959 aerial photograph of the California Bend area obtained from the Department of Agriculture (Ex. P-921). He testified that he placed the river as shown in 1959 and which was the designed channel on the 1938 aerial photographs (Ex. P-2668) in blue and identified it as "Design Channel". He also placed the location of the river as shown on the 1956 aerial photograph (Ex. P-2421) on the 1938 aerial photographs (Ex. P-2668) in red and wrote between the bank lines "1956 River". Mr. Brown testified that the Corps of Engineers dug a canal in the same location as the designed channel in June, 1958. There is some sand and vegetation in the area east of the designed channel and west of the 1956 location on the 1959 aerial photograph (Ex. P-921) and Mr. Brown outlined this area in red. The witness testified that the river is still

in that second designed channel which is identical to the first designed channel. Photographs from the Corps are also in evidence showing California Bend on September 17, 1956 (Ex. P-2438) and California Cut-off on May 13, 1964 (Ex. P-2432).

The 1938 aerial photographs with the identification of the 1956 river and the designed channel (Ex. P-2668) illustrate that the Corps of Engineers created an avulsion through Nebraska land in 1939, placing the Missouri River in the designed channel entirely within the State of Nebraska in California Bend. The Compact was then adopted establishing a fixed boundary down the center of that designed channel. Immediately prior to adoption of the Compact, the land on both sides of the river and the bed of the Missouri River were in Nebraska subject to the easement by the United States for maintenance of the river pursuant to the *Mencke* case and the right of the public under Nebraska common law to the use of the river. Subsequently, the river left the designed channel and moved back to the east to the 1956 location but did not wash away all of the ceded land. In 1959, the river was again placed back to the west in the designed channel by a canal dredged by the United States Army Corps of Engineers creating another avulsion in the California Bend area.

In 1965, the State of Iowa filed an action in the District Court of Iowa in and for Harrison County to quiet title in California Bend captioned *State of Iowa, Plaintiff, v. Harrison County, Iowa; Clifford L. Simmons, et al.* (Ex. P-2672). A plat obtained from the Iowa Conservation Commission describes the area claimed (Ex. P-1521).

Mr. Brown outlined the area in California Bend which Iowa is claiming on the 1946-1947 tri-color (Ex. P-2667) using the description of areas given by Iowa in its LIST OF AREAS OWNED BY STATE OF IOWA ALONG THE MISSOURI RIVER AND DISCLAIMER (Ex. P-2651). The area is outlined in black and Mr. Brown has given it the designation “# 22”. (See also Exhibit D-1155-A through C.) Much of the area which Iowa is presently claiming in its quiet title action in the Harrison County District Court was ceded by Nebraska to Iowa pursuant to the Iowa-Nebraska Boundary Compact of 1943.

Up until the time the State of Iowa filed the quiet title action of *Iowa v. Harrison County, Simmons, et al.*, it had failed to make any claim to abandoned channels in the California Bend area. Not only did Iowa fail to claim abandoned channel resulting from the 1881 cut-off but it also failed to claim any of the abandoned channel resulting from the 1939 avulsion created by the Corps of Engineers.

On June 19, 1959 a quiet title action was filed in Harrison County District Court captioned *Chicago and Northwestern Railway Company, Plaintiff, v. Clifford L. Simmons and Helen H. Simmons, et al.* Included as defendants were The State of Iowa and Harrison County, Iowa (Ex. P-2716). Mr. Brown pointed out the area described in the Petition on the 1938 aerial photograph (Ex. P-2668) and testified that it included “quite a stretch” of what was 1938 river bed of the Missouri River. The State of Iowa filed an “Appearance and Motion for Additional Time to Plead” on July 22, 1959 in which it alleged

“That the State of Iowa has reason to believe that it claims by title and interest a large section of this area, but due to the nature of the claim of the State of Iowa, the exact boundaries thereof are difficult to ascertain, and that it may be necessary for a complete survey of the area to be made prior to the filing of ANSWER by the State of Iowa.” (Ex. P-2716, Vol. XXVI, p. 3707). The appearance was signed by Norman A. Erbe, Attorney General of Iowa and James H. Gritton, Assistant Attorney General. The court file showed an order setting the motion for hearing on August 31, 1959 and then the Judgment and Decree. The certificate of the Clerk of the District Court of Harrison County states that she had searched the case record and found no record in the file or noted on the docket that the hearing mentioned was ever held or a ruling made. On August 24, 1969 the Court entered a Judgment And Decree quieting title in the plaintiff to land in the California Bend area which included a good deal of abandoned channel of the Missouri River created by the 1939 canal in California Cut-off. The decree is signed “Approved As To Form” by James H. Gritton, Assistant Attorney General. Although there are some differences in the description, there is a deed on file in Harrison County from Chicago & North Western Railway Co. to G. William Coulthard (P-2719) conveying most of the land described in the case of Chicago & Northwestern Railway Co. v. Simmons, et al. to G. William Coulthard.

On February 16, 1968 a Petition in Equity was filed in the District Court of Harrison County in the case of *G. William Coulthard, Plaintiff, v. Clifford L. Simmons*

and Helen H. Simmons, Defendants (Ex. P-2718). This was a quiet title action and the area described in the Petition has been outlined by Mr. Brown in red on the index map which is a copy of the 1946-47 tri-color map. Mr. Brown has outlined in green Lot 5, a portion of which is included within the area claimed by the Plaintiff in the *Coulthard* case. Mr. Brown placed this Lot 5 on a 1930 Corp of Engineers Map (Ex. P-2717) and Lot 5 appears to be entirely on the Nebraska bank or peninsula described in the *U. S. A. v. Mencke* case which was cut off from Nebraska by the 1939 Canal. Mr. Brown also placed Lot 5 in white upon the 1938 aerial photograph (Ex. P-2668) and it was entirely on the Nebraska bank at that time. The land which Mr. Coulthard is claiming in *Coulthard v. Simmons* includes the southern part of Lot 5 and all of the abandoned Missouri River bed south of Lot 5 which was left as a result of the 1939 canal. Consequently, it necessarily includes what was both the right and left bank of the 1938 Missouri River as well as all of the bed. The southern part of Lot 5 as described in *Coulthard v. Simmons* is land which was ceded from Nebraska to Iowa by the Compact. Mr. Murray signed and verified the Petition in *Coulthard v. Simmons* and described the formation of that southern part of Lot 5 as follows:

“That during the 1930’s and 1940’s the U. S. Army Corps of Engineers worked on the Missouri River along the western border of Harrison County, Iowa, to place and confine said river within a stabilized channel, which said Corps of Engineers had designed for it. That as partly result of said work by the Corps of Engineers, and partly as result of natural forces, the left bank of the Missouri River

was moved and pressed back in a northwesterly direction so that accretion land formed in the southerly portion of the former location of said Lot 5, Section 12-78-46, said accretion land being in all that portion of the former location of said Lot 5 which is included within the description of real estate set forth in Exhibit "A" hereto attached." (Ex. P-2718).

The California Bend area, like the Winnebago Bend area, represents an attempt by the State of Iowa to obtain ownership of lands ceded to Iowa by Nebraska to which Iowa would have had no claim but for the Compact. However, the Iowa officials have made no claim to other abandoned channels in that vicinity.

Goose Island and Auldon Bar

On Page 44 of the Missouri River Planning Report, the recommendation is made that the State of Iowa quiet title to Auldon Bar Island. The statement is made that future public access:

"... also will depend on whether or not the state gains title to this land and what use it can make of it once title is gained." (Exhibit P-2609).

The photograph in the Planning Report shows Auldon Bar Island with a great deal of land being cultivated and the Planning Report states that 600 acres are now under cultivation and being used by private interests.

This area is just south of Nottleman Island and appears on Sheet No. 61 of the 1946-47 Corps tri-color maps (Exhibit P-2681). Mr. Brown has identified the area with "#27" which Iowa is claiming. Mr. Brown was referred to the 1937 Project & Index Maps at Sheet

No. 26 (Exhibit P-412) and placed a red line in the designed channel around what is now Auldon Bar. This is designated on the Project & Index Maps as Pin Hook Bend and the lower part of Bartlett Bend. The designed channel is shown going through the lower part of Goose Island and the upper part of an island immediately below Goose Island. Sheet No. 24 of the 1938 Project & Index Maps (Exhibit P-413) shows the designed channel in the same area and, where it went through the lower part of Goose Island structures have been built and there is the notation "Bartlett Bend Dredging". The river then goes downstream through Pin Hook Bend and, where it bisects the island below Goose Island, is another notation "Pin Hook Dredging & Canal". The upper part of that lower island has now been designated as "Auldon Bar". There are notations on Sheet No. 24 showing 40,144 cubic yards of earth removed by government drag line in Bartlett Bend started August 14, 1937 and completed November 29, 1937; 67,174 cubic yards by leased dredge started August 12, 1937 and completed September 2, 1937; and 327,483 cubic yards removed by government dredge *McGregor* started June 1, 1938 and completed June 10, 1938. The total cost of the dredging and drag line in Bartlett Bend was \$21,193.50.

Sheet No. 24 also refers to the work in Pin Hook Canal, mile 622.2 and shows removal of 112,221 cubic yards of earth by government drag lines started September 23, 1937 and completed October 16, 1937; 180,234 cubic yards started April 17, 1938 and completed May 4, 1938; 871,697 cubic yards started July 5, 1938 and completed August 12, 1938; and 239,535 cubic yards started

September 26, 1938 with 50% completed on September 30, 1938, all by the Government Dredge McGregor. The cost of the drag line and dredge is shown at \$15,167.94.

On the 1938 maps, the river is shown as running through these canals with some water still along the left bank. A 1937 aerial photograph shows Bartlett Bend and Mr. Brown has placed a red line in the canal running through Goose Island and the canal running through the island downstream. (Ex. P-2372). Vegetation can be seen on the cut-off parts of both islands. Mr. Brown also identified these canals on 1938 aerial photographs obtained from the Corps of Engineers (Ex. P-2377 & P-2376) and placed a red line in the canals and the designed channel. He stated that Exhibit P-2377 shows a canal as it cut through the upper island or Goose Island and Exhibit P-2376 shows the canal and area cut off in the lower island. The 1939 Corps of Engineers aerial photograph (Ex. P-1880) shows the river mostly in the designed channel and the lower part of Goose Island and the northern part of the island below now appear to be joined by sand or bar area.

The 1939 Project & Index Maps (Ex. P-414) at Sheet No. 24 show Pin Hook Bend, and Mr. Brown circled in red the south part of Goose Island through which a canal was built and which still appears and the north part of the island downstream through which a canal was built which also still appears. The 1940 Project & Index Maps (Ex. P-415) show Pin Hook Bend at Sheet No. 17 with the river in the designed channel and Auldon Bar has the appearance of being one complete mass of land. The area that was cut off from the south part of Goose Island

and the area cut off from the north part of the island below still appear but they have been joined by a line. The 1941 Project & Index Maps (Ex. P-416), Sheet No. 17 also show the two land masses as having been joined into what appears to be a single land area with the Missouri River in the designed channel to the west.

Mr. Brown identified a ground level photograph obtained from the Corps of Engineers showing Bartlett Bend Canal on October 13, 1937 at mile 624.1 (Ex. P-2509) and a photograph dated 12-1-37 of Bartlett-Van Horn Bends showing a general view at the mouth of the canal from dike 622.2-A right bank (Ex. P-2510).

There is apparent conflict in the testimony of several of the witnesses concerning where the main part of the river was just south of King Hill around Goose Island and the Auldon Bar area. Even the 1883 Annual Report of the Chief of Engineers (Ex. P-2686) indicated that there were two channels in Pin Hook Bend, one closely hugging the bluff down through Van Horn Bend and the other following the Iowa shore. Regardless of where the main channel was prior to the construction of the canals in the Pin Hook Bend and Goose Island area, the effect of the work by the Corps of Engineers was to place the northern part of Goose Island on the right bank and the lower part of Goose Island on the left bank of the designed channel. The northern part of the island below Goose Island was placed on the left bank and the southern part of the island was placed on the right bank of the designed channel by the Corps. Although Auldon Bar presently appears as one island or one land mass, it is a combination of the two separate islands. Portions of

these two islands remained on the right bank and, by the Iowa-Nebraska Boundary Compact of 1943, are now clearly part of the State of Nebraska. They have not been claimed by the State of Iowa.

The mere fact of the location of the canal as dug by the Corps of Engineers rendered the north half of Goose Island immune while the south half of that same body of land is subject to claim by Iowa. On the island below Goose Island, the south half of the property is immune and the north half of that same piece of land is subject to attack by the State of Iowa. This is the result even though Goose Island formed as one piece of land and the island below formed as one piece. Consequently, the determination by the Corps as to which side of the river the tracts should be placed has determined which portions are subject to attack by Iowa. This illustrates the injustice of the situation for, had the Corps reversed the channel in this area, the opposite areas would have been placed in jeopardy and Auldon Bar would have been free from question.

Nebraska City Island

Reference has already been made at pages 18-20, 26-28, and 31 of this Resume' to the early Corps of Engineers reports showing work at Eastport Bend and the abandoned channel running to the east around Nebraska City Island across from Nebraska City. This was another cut-off and, being so near a population center, presumably would have had a great deal more notoriety than cut-offs appearing away from a town. Iowa's Exhibit D-272, a map of Otoe County, showed Nebraska land on the left

bank of the Missouri River in the Nebraska City Island location. Iowa's Exhibit (D-1159 through D-1159-C) and the testimony of Mr. Jauron identified a green cross-hatched area shown on D-1159-B indicating that the State of Iowa purchased some land just below the Nebraska City Bridge on the left bank of the river from a man named Wurtele. Jauron was asked if he knew of any maps that show this area purchased as a part of Nebraska City Island and his answer was he did not. He had seen only one map which he thought was real authentic that showed Nebraska City Island. He was sure he saw it in Fremont County in Sidney.

He testified he would consider a map contained in a report of the Missouri River Commission to be an authentic map and was referred to Exhibit P-2689, a report of the Missouri River Commission of 1898, containing a map of Nebraska City Island and an area designated "River Bed of 1881" which is a feature around the east and south side of Nebraska City Island. The Wurtele purchase is in the area shown on that particular map as river bed of 1881 and is south of the Nebraska City Bridge and runs to the end of the slough which Mr. Jauron called a ditch. An examination of the maps referred to in the Corps of Engineers reports and a comparison of the topographical features indicate that the land purchased by the State of Iowa from Mr. Wurtele was abandoned Missouri River bed on the outside of the curve or bend and, consequently, would have been a part of abandoned river bed in Iowa. However, the State of Iowa has never made any claim to this abandoned river bed and even paid Mr. Wurtele for land located there.

If these abandoned river beds are "trust lands" of the State of Iowa, then why did the Iowa State Conservation Commission buy the Wurtele land?

ADDITIONAL GENERAL INFORMATION

Additional background to the problems existing along the Missouri River prior to the adoption of the Compact was offered by the testimony of Victor M. Petersen, age 63, of Columbus, Nebraska. Mr. Petersen is a licensed engineer and registered land surveyor in the State of Nebraska and has been engaged in surveying or engineering since 1929. He was elected County Surveyor of Sarpy County, Nebraska, in 1938 and served eight years except for a period from 1942 until 1945 when he was in the military service. Sarpy County is between the city limits of Omaha and the Platte River and is bounded on the east by the Missouri River and Pottawattamie County and Mills County, Iowa. He testified that the Sarpy County officials didn't know where the boundary of Iowa was in the vicinity of St. Mary's Bend, "... and it was almost impossible to know just where any old land of Mills County happened to be down in there." (Vol. XIV, p. 1874). In the period of 1940 to 1941 there was some discussion among the County officials concerning zoning but it was confusing because no surveys had ever been made to establish any lines of Mills County land and it was impossible to survey that and determine with any reasonably good guess where that land was and how much it was. They proceeded to go ahead with their zoning and proceeded to try to establish a Compact between

Mills County and Sarpy County especially. They didn't particularly care too much about the rest of the river.

The witness had made a study of the area in question and studied the records of Mills County and made a report on his findings. There was a little over a section of land that was on the tax list of Mills County near the area which he marked on Exhibit P-2679 in the vicinity of St. Mary's Bend. It had never been exactly established whether it was Mills County or Sarpy County. There was also an area up at Lake Manawa that was considered part of Nebraska but was on the Iowa side of the river. Meetings were had with the Mills County authorities primarily based on the premise of releasing anything that Sarpy County claimed in Iowa and absorbing property that the Mills County authorities claimed within the limits of Sarpy County.

An attorney from Papillion, Nebraska had asked the witness to make a survey and determine the line between Sarpy and Mills County and the witness tried to get information sufficient to go down there and determine a line but found it practically impossible to do so.

The witness identified a report obtained from the Sarpy County Surveyor's Office (Exhibit P-1057) which he testified was prepared by him and accurately reflects the best of his information at the time it was prepared. This report is as follows:

“REPORT ON
BOUNDARY LINE BETWEEN SARPY COUNTY,
NEBR. and MILLS AND
POTTAWATTAMIE COUNTIES, IOWA

February 18, 1941

The object of this report is:

1. To present facts for the consideration of authorities in Iowa and Nebraska for the immediate harmonizing of opinions and fixing of a satisfactory boundary line between Sarpy County, Nebraska and Pottawattamie and Mills Counties, Iowa.
2. To present facts to show that a state of emergency exists which requires the establishment of the boundary with all possible haste.
3. To present facts to show that the recent activities of the War Department in establishing a navigable channel has placed the river under control and consequently the boundary should be fixed as the center of said channel as it is now.
4. To request immediate consideration.

Enclosed herewith is a map that shows the 1856 original Government survey of Sarpy County, Nebraska, the War Department Survey of 1879 and the War Department survey of 1939, and in the discussion that follows reference will be made to this map, and referred to the Nebraska survey extended.

It will be noted that since the original survey of 1856, the river has been very erratic in its course, moving from side to side entirely out of control, which has consequently

left the Iowa-Nebraska boundary entirely out of control, and practically impossible to coordinate with and survey according to riparian law.

These meanderings and cut-offs have left the following unsatisfactory conditions existing today:

1. The river moved northward following a course known as Lake Manawa and subsequently made a cut-off leaving the Iowa-Nebraska boundary following through the center of Lake Manawa. This left a portion of land between Lake Manawa and the main channel in Sarpy County but on the Iowa side. This portion has never been surveyed or claimed by Sarpy County or added to the tax list of Sarpy County. Naturally, Sarpy County is not interested in this tract of land, and wishes to release any legal rights to this to Pottawattamie County, and the State of Iowa. A deed purporting to cover this tract was filed and recorded in Sarpy County, Deed Record Book No. 56, Page 686 in 1935, and referred to the Iowa Survey being indexed under T. 74, R. 44. However, legal complications were advanced which were settled out of Court and it was not placed on the tax list.
2. About 1879 the river began to sweep to the west of Bellevue Island and swining west into Sections 13 and 24, then gradually washed away Bellevue Island and carrying its main channel southeasterly making a sharp bend in Section 20 and 21 retaining its course through Sections 13 and 24. A sudden cut-off about 1881 left parts of Sections 13, 18, 24, 19 and 20 as a part of Mills County, Iowa on the Nebraska side of the main channel. Of this area to date no survey has ever been made setting forth the boundary. Naturally, confusion exists with a great part of this area untaxed, a part taxed in Mills County and a part taxed in Sarpy County. Being on the Nebraska

side of the river, Sarpy County is vitally interested in having this area quit-claimed by Mills County and the State of Iowa.

An investigation of the records of Sarpy County and Mills County, Iowa shows the following to be true within an area of 6860 acres of this disputed area west of the present Gov. Channel.

Total acres	6860
Assessed in Mills County, Iowa	757
Assessed in Sarpy County, Nebr.	2783
<hr/>	
Assessed Total	3540 3540
<hr/>	
Not Assessed Total	3320
Made Land by War Dept. activities	1160
<hr/>	
Good acres not assessed	2160

3. Of recent years the river progressed Eastward far into Sections 21 and 28 and the activities of the War Department placed the river under control around this bend narrowing the stream and allowing the river to deposit a great area here. The War Department then made the cut-off fixing the present channel. This left a large area of land in Sections 20, 21 and 28 of which a majority could be contested as accretions to Sarpy County. But to establish a boundary according to the riparian law would be quite difficult. Being on the Iowa side of the fixed channel this area is not of interest to Sarpy County, Nebraska and it is Sarpy County's desire to relinquish all legal claims to Mills County and the State of Iowa.
4. There are farmers receiving benefits of Sarpy County roads and schools who, due to the 60 years of neglect in fixing a boundary, have not been taxed and are in a "no-man's-land." Some

of these same farmers wish to cooperate and receive benefits under the Sarpy County Agricultural Conservation Association. Such benefits cannot be paid under the present circumstances.

5. There being a Drainage District organized in December, 1939 surrounding this entire disputed area on the Nebr. side, and it being necessary that there be a plan of protection from the Missouri River, and it being impossible for this district to function under the present circumstances; in the interest of the public good this matter should receive attention immediately.

It was necessary for this district to begin maintenance and repair breaks in its dike system built prior to its organization which it did spending around \$4000.00. Now an assessment was attempted but a lawsuit is pending that may throw out the entire assessment.

6. The existence of tracts of Iowa land on the Nebraska side and Nebraska land on the Iowa side complicates and defeats the purpose of our local law enforcement agencies.

This is also a critical situation to which I might cite an example that occurred within the past year: A local squatter came to the County Attorney with a bullet in his forehead, desiring to file charges against his neighbor. The Court's jurisdiction was indeterminate and charges could not be filed.

With a bomber plant now to be built within two miles of this area, we have a perfect haven for the lawless to go to.

No doubt the discussion and example given here applies to the entire Iowa-Nebraska boundary and the Government channel should become the boundary for the entire

length. It is requested, however, that only the boundary between Sarpy County, Nebr., and the State of Iowa be considered and acted upon from this discussion. Any attempt to settle the entire boundary situation would only meet with lengthy investigations and possible failure.” (Ex. P-1057).

The report was signed by Victor M. Petersen, Sarpy County Surveyor.

There is attached to the Exhibit a letter from Mr. Petersen when he was County Surveyor to Mr. Woodford R. Byington, County Attorney, Malvern, Iowa, discussing correspondence and conferences between the county officials. The statement is made in that letter dated February 25, 1941:

“If we cannot arrive at a settlement of this through the channels of our Legislature, it will then become necessary for your surveyor to lay out the area that you claim within our County, in cooperation with me. It is a job that is almost impossible to do, but nevertheless it must be done if our higher officials cannot get together and simplify it for us.” (Ex. P-1057).

The witness testified that statement reflected his opinion at the date it was made. This correspondence and testimony points up the problems of certain bordering counties prior to the adoption of the Compact, the difficulties of any authoritative survey to determine the boundary where it might be other than the main channel of the Missouri River, and a recognition of the expense that would be involved. It further substantiates Plaintiff's contention that the States wished to avoid the problem and expense of locating the boundary, resulting in a compro-

mise agreement which would eliminate any such requirement.

Plaintiff took the deposition of Mr. Lawrence Hart, age 61, on December 19 and 20, 1967. Mr. Hart was deceased at the time of trial and had been employed by the Iowa State Conservation Commission to make various surveys along the Missouri River. He retired from the Corps of Engineers in 1965. Mr. Hart identified canals built by the Corps of Engineers along the Missouri River on a series of A. P. maps, Exhibit Hart 1. On Sheet A. P. - 2 they dug a canal in 1939 in Winnebago Bend and opened it up in 1940. He staked the canal in December and testified it was done on the Nebraska bank. The ground where they staked the canal was a fairly high bar with fairly high willows and they staked right through the willows. In 1940 the river was thrown into the canal and was in the designed channel in Winnebago Bend in 1943. During the war the dikes at the upper end failed and the river left the canal and then the river was placed back into the designed channel when they went in and dug the same canal back out again. This is shown on the A. P. map to be in the Flower's Island area and Mr. Hart has traced in red the original Nebraska land on the left bank side of the river and identified it with the letter "N" and he has also outlined the remainder of Flower's Island. This is the area where Iowa is claiming an area between the original Nebraska land which was ceded to Iowa and the designed channel to the west where the Winnebago Bend Canal was dug.

Also on Sheet 2, the witness outlined in blue where

some dirt was taken out with a drag line in 1939. He didn't recall the contractor who did it; there were so many jobs in that many years you would have to be a computer to remember each contractor on each job like that or remember everything that happened.

On A. P.-1 Mr. Hart indicated they dug a canal in 1954 or 1955. This is in Omadi Bend.

On A.P-5 the Corps dug a canal in 1939 with two big 5-yard shovels and a walking-type drag line in Peterson Cutoff and opened it in the spring of 1940. He thought the bottom width of the canal when they laid it out was either 80 or 100 feet. He mentioned California Cutoff which was laid out in he thought 1939, which is also on A.P.-5.

Mr. Hart testified that he wasn't familiar with the river below Map A. P.-6 which is above Omaha. On A. P.-1 the witness said they either dug a canal or removed some dirt in Browers Bend but it seemed to him it was more of a dirt removal. That was with both dredging and drag line. On Map A. P.-3 they dug Decatur Cutoff in 1954. This was also marked in green. Before they dug the canal, the river was wandering around to the east and the witness marked this area in red. They also made a cut right under the bridge to place the river under the bridge at Decatur and this is shown on A. P.-3 of Exhibit Hart 1. He called this Decatur Canal Cutoff.

On A. P.-4 they cut a hole through Soldier Bend in 1954. This was marked by the witness in blue. On Maps A. P. 5 and 6, the witness showed DeSoto Cutoff

which overlaps the two maps. He thought this was in 1954 or 1955.

He testified he had no knowledge of canals south of Omaha except he knew of St. Mary's Bend. He was in the Nebraska City area but he left there in 1936.

On A. P. Map 5, the Corps of Engineers dug a canal in California Cutoff. On the second day of the deposition, Mr. Hart recalled two canals which he had forgotten which were in Snyder Bend on Sheet A. P.-2 and Blackbird Bend on Sheet A. P.-3. The Blackbird Bend Canal was dug probably in 1957 and the Snyder Bend Canal around 1961.

Mr. Hart also testified that in June and July of 1943 there was a big flood so at the time of July 12, 1943, the Missouri River was still engaged in flooding. That was a major flood. The major floods were in 1952 and 1950, 1942, 1944, and 1943 which were the largest they ever had, and in about that order.

Plaintiff also offered portions of a deposition of Raymond L. Huber, taken on December 14, 1967. He testified that Major Loper was at the Omaha District at the very beginning of its establishment but Mr. Huber didn't go to Omaha until 1936. Mr. Huber was shown the Alluvial Plain Maps Numbered A. P.-1 through A. P.-13 and stated:

“A. The alluvial plain maps were prepared to facilitate the employees of the District Office and of the field office in driving to various locations along the river. These maps show the roads and highways and were primarily used for gaining

access to the various jobs which were under construction along the river." (Vol. X, p. 1445).

He testified these maps were prepared on or about the dates which appear on that series. Mr. Huber said these maps would be similar to a highway map, except in much greater detail in that they show the roads in the vicinity to much greater detail than on a road map.

Mr. Huber recalled having discussions in the period immediately prior to 1943 with officials of the State of Iowa and State of Nebraska in connection with the boundary between Iowa and Nebraska. He did not know who the discussions were with or who the people were present but there were some from both states. He did not recall their titles or their positions and thought the year was about 1940. The nature of the discussions was described by him as follows:

"We were contacted prior to 1943, really prior to 1941, the states were interested in having a fixed boundary, and the primary points of the discussion concerned what maps were available of the Corps of Engineers which could be used to relate the boundary between the two states." (Vol. X, p. 1447).

This was all that he could recall. There were more than one discussion and they were within a period of one or two years. They were held in the Omaha Office, Corps of Engineers. As a result of these discussions, it was concluded by the States to use the Alluvial Plain Maps as a map for reference for a new boundary between the two states. Mr. Huber stated these discussions were held prior to our entry into World War II.

Mr. Huber described generally the Missouri River prior to our entry into World War II.

“ . . . Prior to the design, the channel was wild and uncontrolled. The channel meandered between numerous sand bars. It constantly changed locations and resulted in erosion of the banks at many locations with resultant loss of land.” (Vol. X, p. 1453).

Mr. Huber testified that there has been a policy change in the condemnation of land taken by movement of the river since World War II and now, if there is a movement of the channel which actually requires some high ground, the Corps in most cases would purchase the land.

During World War II, work was suspended and the Corps was permitted to do only a minor amount of maintenance, with a result that many of the structures were severely damaged, and in some cases they had complete loss of the channel. In those instances the channel reverted to a wild state. A few of these instances would be in the vicinity of Onawa, Iowa and the vicinity of Brower's Bend, in the Winnebago Canal area, in the vicinity of the Soldier Bend area, and in the vicinity of California Cut-off, to name a few. Mr. Huber mentioned many areas where there was a change in the design of the channel from the A. P. Maps. All of these changes were above Omaha.

The witness then testified to canals which he recalled being dug along the river and referred to project maps of the Missouri River from Sioux City to Rulo dated June 30, 1937 to refresh his recollection. These canals

were located on Plaintiff's Exhibit H-1 or Huber-1 which is another set of A. P. Maps. A pilot canal was excavated in the Omadi Bend area but he did not recall the date. When asked why it was necessary to dredge a pilot canal in the Omadi Bend area, the witness answered:

"We were re-aligning the canal some distance to the east of its former location, and the most economical, as well as the fastest method, of getting to its new location would be to construct certain dikes and revetments upstream from the canal, and to excavate a canal in such a location that these dikes would then close off the old channel and redirect the flow into the new pilot channel, which, after the river was directed into it, then widened to the designed width." (Vol. X, p. 1467-1468).

The Corps had maps prepared which showed the location of the pilot channels. *Many of these maps were destroyed. They were destroyed because the Corps had no use for them.*

The Omadi Bend Canal was shown on Map A. P. - 1 by the witness and another pilot channel was excavated in the Snyder Bend area which the witness indicated with blue arrows on Plaintiff's Ex. Huber 1. He did not recall the date excavated. It was excavated for the same reason as the one in Omadi Bend.

On Sheet A. P. - 2 blue arrows indicate a canal in Glover's Point Bend and a pilot channel was excavated in Winnebago Bend through the area where a pilot channel had been excavated before World War II. He did not recall the year when the Winnebago Canal was dug. On A. P. - 2 a pilot channel was excavated in Monona Bend and another at Blackbird Bend. Some of the Black-

bird Bend Canal shows on A. P. - 3 and the next pilot canal, on that same map, was through the area upstream from Decatur. Mr. Huber was then asked:

“Q. Now, Mr. Huber, going back to Blackbird Bend, do you recall when that canal was constructed?

A. No, sir, I didn't prepare myself to testify to the various dates, I understood that we were going to—were concerned with two areas below Omaha.” (Vol. X, p. 1472).

Also, on A. P. 3 a canal was dug in Tieville Bend to realign the river into a better alignment. The witness also mentioned that a high bridge had been constructed at Decatur which contemplated that the new designed channel would be placed under the navigation spans of that bridge. They dredged the canal so the river would then go under the bridge.

The next pilot canal was through Middle Decatur Bend on A. P. 3.

On A. P. - 4, a pilot canal was placed through Soldier Bend and on A. P. - 5, a pilot canal was excavated in Sandy Point Bend. A pilot channel was also excavated through the California Cut-Off and a pilot channel was excavated through the De Soto Bend area. This canal also extends into Sheet A. P. - 6. All of the canals indicated in blue by Mr. Huber on Exhibit H-1 were constructed after 1943. The witness was then asked about canals dredged in connection with the stabilization of the channel of the Missouri River prior to 1943. He identified these in green and testified a pilot canal was excavated through the Narrows in the vicinity of Omaha in 1936. This was the first pilot canal that was excavated on the

Missouri River and was excavated in the year he came to Omaha. It was placed on map A. P. - 6 of Exhibit Huber 1. The witness indicated a canal in Winnebago Bend prior to 1943 on Sheet A. P. - 2; a canal through Peterson Bend and one through California Cut-Off on Sheet A. P. - 5; and a canal in St. Mary's Cut-Off A. P. - 8 which was excavated in 1938.

He indicated in green a canal in Bartlett Bend on Sheet A. P. - 8 and a pilot canal excavated immediately below Bartlett Bend on A. P. 9. A pilot canal was excavated through Pinhook Bend on A. P. - 9 and one in Civil Bend. A pilot canal was excavated in Otoe Bend in 1938 and this was identified in green on A. P. - 10 of Plaintiff's Exhibit H-1. A canal was dredged in Upper Hamburg Bend on Sheet A. P. - 10. This is right on the Missouri line and just below Otoe Bend. It is part of the long bend which the witness, General Loper, testified was part of a long reach which was cut into three pieces or made into three curves.

All of these canals identified with green arrows, which included all of the canals below Omaha, were dredged prior to 1943.

The witness also testified that Plaintiff's Exhibit H-1 are not to the scale of the A. P. maps as they were originally in the Corps offices but they are reduced. Exhibit H-1 is the same scale as the A. P. Maps which are on file with the Secretary of State of Iowa and Nebraska and upon which Compact is based.

Mr. Huber was handed a typed copy of a letter stamped on the back "Nebraska vs. Iowa, Plaintiff's

Identification No. 1541'' which is purportedly a copy of a letter dated 28 February 1963, and has on the signature block H. G. Woodbury, Jr., Col. Corps of Engineers. The letter was addressed to Mr. Jauron, Iowa Conservation Officer, Earling, Iowa. The identification of the letter shows it is identical to Plaintiff's Exhibit P-1539, a letter from the Corps to Mr. Jauron. The contents of this letter are similar to the contents of the letter received by Mr. Willis Brown from the Corps of Engineers dated Jan. 13, 1966 (Ex. P-998) and the letter indicated in the 1965 report of the Iowa Boundary Commission to the Governor of Iowa (See pp. 54-55 of this Resume'). It is also similar to the language in a letter from the Corps of Engineers to Senator George Syas of Omaha, Nebraska (Ex. P-1054). The witness said that letter recalled to mind the statement "... which we have made on occasion to the general substance in this letter." The letter was drafted by him (Ex. P-1539). It refers to the fact the present boundary cannot be located throughout by maps in the files of the Corps.

Several maps and photographs were offered during testimony of the Nebraska State Surveyor.

Ground level photographs are in evidence obtained from the Corps of Engineers showing the Omadi Bend Canal at mile 796.2 in April of 1942 (Ex. P-2458 & P-2459) and of the Omadi Bend Canal dated May 13, 1964 (Ex. P-2461). Mr. Brown surveyed the state line on the area shown on Exhibit P-2461 sometime in the 1960's for the Nebraska Game Commission and showed the state line in black on the exhibit. A portion of it was in the water and another portion of it was on the sandbar.

Photographs of a pilot canal in Brower's Bend, mile 788.1 dated 12-29-38 and 12-5-41 are in evidence (Ex. P-2468 and P-2469). On Sheet No. 71 of the 1946-47 tri-color (Ex. P-2664) three ox-bows lakes are apparent, Lake Quinnebaugh, Guard Lake and another unnamed lake in the southeastern portion of the map. Mr. Brown has surveyed in the Quinnebaugh area and has run into descriptions in Burt County, Nebraska which describe that area within Lake Quinnebaugh by Iowa descriptions.

On Sheet 66 of the 1946-47 tri-color (Ex. P-2674) three ox-bows lakes are shown: Old Honey Creek Lake, Nathan Lake and Horseshoe Lake. Mr. Brown identified on Sheet 65 of the 1946-47 tri-color (Ex. P-2675) the starting point of the metes and bounds description referred to in Section 1 of the Iowa-Nebraska Boundary Compact which excepts the Carter Lake area from the Compact. At that point, Mr. Murray stated that the list filed fails to claim that part of the bed of Carter Lake which is in Iowa which they do claim. (Vol. XII, p. 1769).

Sheet No. 64 of the tri-color map (Ex. P-2676) shows Lake Manawa located in Iowa. In 1915, an action was filed in the District Court of Pottawattamie County, Iowa by the *Omaha, Council Bluffs and Suburban Railroad Company vs. J. P. Christensen, County Treasurer of Pottawattamie County*. The Decree was filed September 27, 1917. (Ex. P-2677). The action by the Railroad Company alleged that land in the Lake Manawa area was Nebraska land because of an early cut-off or avulsion and obtained a Decree enjoining the County Treasurer from taxing this land in Pottawattamie County and holding that certain

lands on the left bank were a part of Sarpy County. A deed was then offered from the Omaha and Council Bluffs Railway Bridge Company to the State of Iowa filed January 23, 1932 conveying some of the Lake Manawa land including lake bed, but it contained the statement "No riparian rights are conveyed by this instrument." (Ex. P-2678). This was another instance where the Missouri River was entirely in Nebraska at the time of the Compact.

Mr. Brown was referred to a print of a map obtained from the County Surveyor's Office in Papillion, Nebraska, dated "Revised in 1925". The map was prepared by the County Surveyor and shows Lake Manawa on the Iowa side of the river with a reference "State Line by Decree of the Court 1900 A.D." on the left bank side showing a cut-off of the Missouri River (Ex. P-1774). Mr. Brown testified he had never found that Decree. In the St. Mary's Bend area Ex. P-1774 shows the river of 1913 going through a part of Old St. Mary's and the river of 1909 curved to the east of Old St. Mary's. There are several channels where the Missouri River and the Platte River join.

Sheet No. 63 of Corps of Engineer tri-color maps (Ex. P-2679) includes the St. Mary's Bend area and photographs from the Corps of Engineers showing dredging of St. Mary's Bend Canal in 1938 are in evidence (Ex. P-2473 through P-2477, P-2479, P-2481 & P-2485). Mr. Brown identified aerial photographs of the St. Mary's cut-off dated 1937 (P-1810) and 1938 (P-1812) and 1941 (Ex. P-2392). These show another clear avulsion created by the Corps along the Missouri River. Iowa is claiming

the entire abandoned bed in the St. Mary's Bend area although they did not list this area in the Planning Report.

The Corps of Engineers ground level photographs are in evidence showing Pin Hook Bend Canal, mile 622.1 dated 5 May 1938 (Ex. P-2507) and the same canal as of 10-28-37 (Ex. P-2506). A photograph shows Civil Bend, Digging Canal, dated April 14, 1937 (Ex. P-2514) and another, dated December 29, 1937, shows Van Horn's Bend Canal, mile 621.0 and shows the plug in the canal. (Ex. P-2511). Another photograph showing Civil Bend Canal is dated May 26, 1937 (Ex. P-2517) and photographs of Van Horn's Bend Canal are dated December 29, 1937 (Ex. P-2508) and December 29, 1937 (Ex. P-2512). Mr. Brown identified a photograph of Civil Bend with the caption "Closing navigable gap in 616.8." (Ex. P-2515). This picture depicts some pile drivers on the dike line with dike to the right and left and, from the caption, the witness concluded they are closing that gap in the dike with pile drivers. There was a hole in that dike.

The series of tri-color maps with Mr. Brown's markings of the 1965 channel show many areas above Omaha where the present Missouri River is not in the 1943 designed channel. The witness testified that below Omaha the Missouri River is in the designed channel. From Omaha south the river has been in the designed channel ever since 1943. Mr. Brown identified photographs of Hamburg Bend Pilot Canal, which is just below Otoe Bend, dated in December 1938 and January 1939 (Ex. P-2520 and P-2521). He identified the Hamburg Bend Canal on the 1938 Project & Index maps (Ex. P-413) and testified

this canal is downstream about a mile from Otoe Bend or the Schemmel area. Another photograph of Hamburg Bend Pilot Canal dated January 2, 1939 obtained from the Corps was also offered (Ex. P-2522). On sheet No. 59 of the tri-color (Ex. P-2683) Mr. Brown identified an area Iowa is claiming numbered "30" which is adjacent to the Hamburg-Bend Canal. This is State Line Island and the area through which this canal was cut can be seen at the lower portion of Appendix B.

Mr. Brown testified that there were difficulties encountered in comparing information on the 1946-47 tri-color maps and the Alluvial Plain maps referred to in the Compact. The tri-color maps have been found to be quite accurate but the information on the A. P. maps as to section lines and other information landward from the river is very inaccurate. There were areas where the map information is at least one-quarter mile off. In order to get information in connection with the determination of the present boundary between Iowa and Nebraska, it has been necessary to go to the Corps of Engineers. The purpose of the A. P. Maps was more or less as a glorified road map to show access to the river. Mr. Brown testified the A. P. maps were not intended for any engineering results. When he became State Surveyor in 1960, there was no information on file in his office which would help determine the location of the center of the designed channel as shown on the Alluvial Plain Maps. All of the official surveys of the State are on file with the State Surveyor and there is no other office that carries official land survey records.

Mr. Brown was asked his experience in connection

with the obtaining of information from the Corps of Engineers as concerns their previous projects and the situation of the river at the time of the Alluvial Plain Maps. He testified that, to put it mildly, it is a little frustrating. He would see documents and information in an office at one particular time and come back a year later and try to find that information and it would not be available. It would be destroyed or lost or he was just not able to obtain it. The Corps had been cooperative and they furnished a lot of information and the witness could understand why they were not particularly interested in keeping these real old records. In response to a question from the Court, the witness indicated the Corps is not a record-keeping office primarily. This attempt to obtain information from the Corps has been very time-consuming and a good part of the investigation in this case was spent searching records of the Corps.

The witness made inquiry of the Corps of Engineers to determine whether they have information in their office which would enable them to determine the center of the stabilized channel as it appears on the Alluvial Plain Maps. Exhibit P-999 was a letter from Mr. Brown to the United States Army Corps of Engineers, Omaha, attention Mr. H. H. Sorenson, Chief of Channel Stabilization which stated:

“In 1943 the States of Iowa and Nebraska entered into a Boundary Compact. In this Compact, with the exception of the area occupied by Carter Lake, Iowa, the state line was described as being the center line of the proposed stabilized channel of the Missouri River as established by the United States Engineers’ Office, Omaha, Nebraska, and shown on

the alluvial plain maps of the Missouri River from Sioux City, Iowa, to Rulo, Nebraska, and identified by file numbers AP-1 to 4 inclusive, dated January 30, 1940, and file numbers AP-5 to 10, inclusive, dated March 29, 1940, which maps are now on file in the United States Engineers' Office at Omaha, Nebraska.

"Is it possible to accurately determine the state line between Iowa and Nebraska using only the information available on the alluvial plain maps, as indicated by the Boundary Compact between Iowa and Nebraska?" (Vol. XIII, pp. 1797-1798).

Exhibit P-998 is a reply from Mr. Charles L. Hipp, Chief, Engineering Division, U. S. Army Engineer District, Omaha, dated January 13, 1966, and addressed to Mr. Brown at his office in Lincoln. It states:

"In reply to your letter of 7 January 1966 concerning the state boundary between Iowa and Nebraska, the 1943 state boundary between Nebraska and Iowa cannot be located throughout on the ground from the Alluvial Plain Maps since they are of too small a scale (1" equals 2,640') and do not contain sufficient detail for a surveyor to accurately locate the boundary. At one time it was possible to locate the state boundary from our 1" equals 400' construction maps as a river alignment as shown on these maps conform to the alignment as shown on the Alluvial Plain Maps. Since the present Boundary Compact was ratified, numerous channel realignments have been made and the basic 1" equals 400' tracings have been revised to show these realignments. Copies of 1" equals 400' maps which show the alignment in accordance with the alignment shown on the Alluvial Plain Maps were not retained and it is not possible to locate the boundary on the ground throughout from any maps on file in this office.

If we can be of any further assistance, please feel free to call on us." (Vol. XIII, pp. 1798-1799).

Plaintiff offered for the record Exhibits P-1540 and P-1539 which are copies from the Corps of Engineer files of a letter from Mr. Jerry Jauron to the District Engineer inquiring as concerns that same subject. The reply was dated February 28, 1963 and contains substantially the same information as the letter from Mr. Sorenson to Mr. Brown. A comparison of the identification markings on this letter with the testimony by Mr. Huber in his deposition read into evidence by Plaintiff, identifies this letter as the one which Mr. Huber drafted when he was still with the Corps.

A letter of similar import from the Corps of Engineers to Mr. George Syas, Senator, Nebraska Legislature dated 6 March 1963 is also in evidence (Ex. P-1054).

The report from the Iowa Governor's Advisory Committee on the Iowa-Nebraska Boundary dated December 1, 1964 refers to a letter from the United States Corps of Engineers dated February 28, 1963 quoting language similar to the letter to Jauron. (See page 54 of this Resume'.)

There is also in evidence a complete series of photographic maps dated April, 1964 obtained from the Corps of Engineers of the Nebraska-Iowa stretch of the river. These aerial photographs show numerous ox-bows, areas apparently scoured or affected by the river, and apparent abandoned channels of years past.

Mr. Brown in connection with his study of the Missouri River boundary prepared maps comparing the 1943 designed channel with the original Nebraska Government survey. This comparison appears in Exhibit P-2173 and

is a complete folio of the original Government plats along the Missouri River on file in his office. The sections which are one mile squares are shown on these maps so it is easy to compare, by the length of the sections, about how far it is between the designed channel and the river bank line according to the original government survey. Mr. Brown testified this Exhibit does not reflect all the movements of the river but was only a comparison between 1943 and the original Nebraska Government survey. There are several places on these maps where the Nebraska bank is now several miles from its original location.

Mr. Brown also testified that he made a search to determine whether any record was ever made of the specific lands which were ceded from Nebraska to Iowa or from Iowa to Nebraska pursuant to the Iowa-Nebraska Boundary Compact of 1943. He has been searching for that information since the beginning of this case. He searched through the records in his office and found no information as to land ceded. The former State Surveyor, now deceased, who was in office at the time of the Compact and prior, informed the witness that he knew of no listing of specific lands transferred or ceded from one state to the other.

Iowa was asked about this in interrogatories and the following interrogatory and answer was offered:

Plaintiff's interrogatory No. 13: "Have there been any determinations made identifying lands along the Missouri River which were ceded by the State of Nebraska to the State of Iowa under the Iowa-Nebraska Boundary Compact of 1943?"

The answer is: "Not by the State of Iowa or that Iowa is aware of." (Vol. XI, p. 1592).

Plaintiff's interrogatory No. 13: "Have there been any determinations made identifying lands along the Missouri River which were ceded by the State of Nebraska to the State of Iowa under the Iowa-Nebraska Boundary Compact of 1943?"

The answer is: "Not by the State of Iowa or that Iowa is aware of." (Vol. XI, p. 1592).

The following paragraphs from Plaintiff's Complaint were admitted by the State of Iowa in its Amended Answer: 1; 2; 3; 4 in the following language: "Admitted as concerns the area involved in Nebraska vs. Iowa No. 4 Original, 143 U. S. 359, 12 Supreme Court 396, 36 Lawyer's Edition 196, 1892." (Vol. XIII, p. 1839); 5 except the last phrase which is "And it became almost impossible to determine the exact boundary between Iowa and Nebraska in many places at any given time in the past," which averment is denied by Iowa (Vol. XIII, p. 1839); 6; 7; 8; 10 except the last sentence of that paragraph which Iowa denies; 11; and 15 except the sentence commencing on the fifth line from the bottom of Page 15 of the Complaint which commences "Plaintiff is informed and believes" (Vol. XIII, p. 1839).

Plaintiff also offered a navigation chart obtained from the Corps of Engineers for the year 1966 as an example to show the navigation channel does not follow the center of the river. (Ex. P-2685). The red line representing the navigation channel tends to the concave sides of the bends except at crossings. It was agreed that the Court take judicial notice of the statutes and case law of both states, Iowa and Nebraska. Plaintiff also specifically

offered certain sections of the Iowa Statutes. Iowa Code Section 9.1 provides that the Secretary of State shall keep all property pertaining to the State Land Office and Section 10.1 of the Iowa Code provides:

“The books and records of the Land Office shall be so kept as to show and preserve an accurate chain of title from the general government to the purchaser of each smallest subdivision of land, to preserve a permanent record in books suitably indexed of all correspondence with any of the departments of the general government in relation to state lands, to preserve by proper records copies of the original lists furnished by the selecting agents of the state, and all other papers in relation to such lands which are of permanent interest.”

The next section, 10.2, provides:

“Separate tract books shall be kept for the university lands, the saline lands, the half-million acre grant, the sixteenth sections, the swamp lands, and such other lands as the state now owns or may hereafter own, so that each description of state lands shall be kept separate from all others, and each set of tract books shall be a complete record of all the lands to which they relate”. (Vol XIII, p. 1862).

Then Section 111.19 of the Iowa Code, which pertains to the Iowa Conservation Commission is as follows:

“The commission shall at once proceed to establish the boundary lines between the state-owned property under its jurisdiction and privately owned property when said commission deems it feasible and necessary, and shall where deemed advisable mark the same so that the boundaries of such state-owned property may be easily ascertainable to the public.” (Vol. XIII, p. 1863).

The statement was also made in the record that it appears this provision has been a provision of the Iowa Code since 1923, and in 1931 the language, "when said commission deems it feasible and necessary," was inserted. (Vol. XIII, p. 1863).

The following Interrogatories of Plaintiff and Answers by the State of Iowa were offered (Vol. XI, pp. 1591-1598, 1602-1604):

"Plaintiff's interrogatory No. 2. "List all court cases involving title to lands or proceeds of condemnation awards on the condemnation of lands allegedly arising out of the bed of the Missouri River or abandoned channels thereof constituting riparian lands along the Missouri River or abandoned channels thereof in which the State of Iowa has appeared and disclaimed title to such lands or the proceeds of such condemnation awards, identifying such court cases by the date filed, the court where filed, the docket number, and the title of each case.

The answer to interrogatory No. 2: "Case No. 13 above, which is Peterson v. Iowa, et al., filed 10-12-64, Docket No. 17674, District Court of Iowa, Monona County; Lakin v. Iowa, et al., filed 5-7-63, Docket 17400, District Court of Iowa, Monona County; Lakin Fertilizer v. Iowa, et al., filed 7-8-63, Docket 17439, District Court of Iowa, Monona County; Lakin v. Iowa, et al., filed 4-6-65, Docket No. 17737, District Court of Iowa, Monona County; Rand v. Iowa, et al., filed 12-2-63, Docket No. 31075, District Court of Iowa, Harrison County."

Interrogatory No. 65: "With regard to the land involved in Iowa v. Babbitt, (a) what investigation was made regarding title by the State of Iowa prior to the filing of the case on March 18, 1963?"

The answer to (a) is, "The records of Mills County, Iowa, were checked to obtain names of possible parties defendant," and (b), "What investigation was made regarding formation of land prior to the filing of the case on March 18, 1963?" and the answer to (b) is, "Maps plats and photographs at Corps of Engineers office in Omaha, the Secretary of State's office in Des Moines, the Mills County ASC office, and at Mills County Courthouse were studied. Also the area itself was studied from airplane, boat, car, and on foot."

Interrogatory No. 115: "Has the State of Iowa ever had physical possession of the land involved in Iowa v. Schemmel?" Answer to No. 115; "Yes."

Interrogatory No. 116: "If the answer to interrogatory No. 115 is 'yes,' was such possession open and notorious?" and the answer to 116, "Yes."

Interrogatory No. 117: "If the answer to Interrogatory 116 is 'yes,' describe the act by which possession was evidenced and state the name and address of the person or persons who performed such acts and the dates upon which or between which the acts were performed." Answer to interrogatory No. 117: "Before any part of Schemmel Island came into existence as land, it was part of the bed of the Missouri River. During this time that part of the bed which was in Iowa was owned by the State and was in the possession of the State evidenced by the fact that the general public used it for fishing, hunting and boating. After it arose above the ordinary high water mark and attained the status of land, it remained in the possession of the State, such possession being evidenced by various acts by the general public and by the fact that no private individual attempted to take possession of it or to oust the general public from it. Iowa remained in open, peaceable and notorious possession in the above manner until 1956 or 1957, at which time Henry E. Schemmel began clearing

and farming a portion of the island and began ousting the general public from it. The state of Iowa is still in possession of all parts of the island and of all river bed in proximity to it which Henry E. Schemmel has not cleared for cultivation at this time. * * * ”

Interrogatory 122: “With regard to the land involved in Iowa v. Schemmel, (a) what investigation was made regarding title by the State of Iowa prior to the filing of the case on March 26, 1963?” Answer to (a), “The records of Fremont County, Iowa, were checked to obtain names of possible parties defendant,” and (b), “What investigation was made regarding formation of the land prior to the filing of the case on March 26, 1963?” and answer to (b), “Maps, plats and photographs at the Corps of Engineers office in Omaha and the Secretary of State’s office in Des Moines, at the Fremont County ASC office, and at the Fremont County Courthouse were studied. Also the area itself was studied from airplane, boat, car, and on foot.”

Interrogatory No. 123: “State the names and addresses of all persons who were interviewed by the State of Iowa, its officials or employees prior to March 26, 1963, concerning the formation of the land involved in the case of Iowa v. Schemmel, and state the names and addresses of the officials or employees of the State of Iowa who participated in such interviews.”

Answer to No. 123: “None.”

No. 124: Prior to March 26, 1963, did the State of Iowa or any of its officials or representatives discuss the formation of the land involved in Iowa v. Schemmel or the basis of claim to said land with any of the defendants named in said action?

Answer to interrogatory No. 124: “No.”

Interrogatory No. 126: "With regard to the case of *Iowa v. Schemmel*, state the names and addresses of all persons having knowledge of the relevant facts concerning the formation of the land described in such case."

Answer to interrogatory No. 126: "Anybody who has studied the maps, plats and photographs of Schemmel Island has knowledge of the relevant facts concerning its formation. We do not know all of the people who made such study. The following named persons have studied these items for the State of Iowa: John M. Creger, Minneapolis, Minn., Michael Murray, Logan, Iowa, Robert B. Seism, State House, Des Moines, Iowa, Sewell E. Allen, Onawa, Iowa, Gerald J. Jauron, Earling, Iowa, Raymond L. Huber, 5255 Military, Omaha, Nebr. There are also some individuals who purport to have some recollection of the Otoe Bend to Schemmel Bend Island area running back to the 30's, but we have not pursued any investigation with any such individuals because it is our opinion relevant facts are all fully, clearly and indisputably established by the available records, maps, plats and photographs and photographs inspected with investigation and study of the area itself. Any other evidence based on human recollection as to the matter would be clearly cumulative, or if in conflict with the documentary proof would be unworthy of belief."

Interrogatory No. 127, "Was any investigation made into the records of the registrar (Register) of deeds of Otoe County, Nebr., or the records of the District Court of Otoe County, Nebr., prior to the filing of *Iowa v. Schemmel* on March 26, 1963?"

Answer to 127: "No."

Interrogatory No. 164, "In those places where the Missouri River is presently confined to the stabilized channel of the Missouri River as it appears on the alluvial plain maps referred to in the *Iowa-Nebraska*

Boundary Compact, does the State of Iowa claim ownership to the entire bed of the Missouri River which is on the east side of the middle of the main channel as used in the Iowa-Nebraska Boundary Compact?"

Answer to No. 164: "Yes."

Interrogatory No. 175: "Does the State of Iowa have an official record of State-owned land held or claimed by the State of Iowa on January 1, 1943?"

Answer, "No."

Interrogatory No. 177: "Does the State of Iowa have an official record of State-owned land held or claimed by the State of Iowa on July 12, 1943?"

Answer to No. 177: "No."

Interrogatory No. 179: "Does the State of Iowa claim the ownership of all abandoned channels of the Missouri River presently located in the State of Iowa?"

Answer, "No."

Interrogatory No. 189: * * * "Describe generally the location of all abandoned channels of the Missouri River presently located in Iowa to which the State of Iowa does not claim ownership."

The answer is, "We believe that the entire flood plain of the Missouri River from the hills in Iowa to the hills in Nebraska was once the channel of the Missouri River, hence, the entire flood plain which is not presently occupied by the river may be termed abandoned channel, and this encompasses thousands of acres. There is no practical means of describing even generally the vast portion of the flood plain which Iowa does not claim to own."

Interrogatory No. 213: "State whether the State of Iowa prior to, concurrent with, or subsequent to

the effective date of the 1943 Compact enacted legislation to (a) provide for the identification by survey or otherwise of land ceded to Iowa by the 1943 Compact; (b) provide for the identification by survey or otherwise of land ceded to Nebraska by the 1943 Compact; (c) facilitate by payment of costs or otherwise the recordation in Iowa by Iowans or Nebraskans of titles to lands ceded by Nebraska to Iowa by the 1943 Compact, or (d) quiet title in claimants to riparian lands along the Missouri River.”

The answer to each part separately was “No.”

The record shows that Iowa did not mark the boundaries of the Schemmel, Nottleman Island, or many other areas which it presently is claiming and there is no record in the offices of the Secretary of State of Iowa, which is the State Land Office, of Iowa’s ownership or claim to these lands. There was no such record at the time of the Compact, either.

Plaintiff contends that Iowa paid no attention to this land until it became valuable farm land. Plaintiff’s appraiser, Mr. John P. Olson testified that in his opinion the Nottleman Island tracts had a value of \$607,900 as of December 29, 1967. Since that time the trend with regard to values of land of this character has been upward. Some of the class 1 or top-grade farm land on the subject property was worth approximately \$500 per acre. The Schemmel land was appraised by Mr. Olson at \$180,500 as of December 1, 1967 with some of the land valued at \$400 per acre. Some of the witnesses also testified to their opinion of the value of the land which was higher than the appraiser’s. Mr. Propp talked about \$800 per acre land in the area.

Iowa's motives may well be explained by the letter from the Attorney General of Iowa to the Governor of Iowa in 1964 which bears repeating:

“For many years of Iowa's history, the state did not zealously protect its ownership of these islands, particularly islands forming in the Missouri River, because for many years islands in the Missouri River were considered transitory in nature, subject to excessive flooding, and of little value.

In recent years, U. S. Army Corps of Engineers works in the Missouri River Basin have changed this picture entirely. Channel stabilization work has made it so that the islands are no longer transitory. Upstream impoundments have made it so that they are no longer subject to frequent flooding. These areas now have substantial value to the people of Iowa, both monetary, and in some cases, recreational.”
(Vol. XIII, pp. 1863-1864).

IOWA'S WITNESSES AND EVIDENCE

The Nottleman Island Area

Many of the witnesses called by the Defendant had little acquaintance with the Missouri River. Iowa's witness Ramge, lived two and one-half miles from the Missouri River. In one of the pictures supposedly taken between 1932 and 1934 when he was at King Hill on a picnic, he could not identify the land mass in the background. Although he told the Court the photographs which he took were all supposedly taken the same day from almost the same spot, he could not explain why that land mass looked so much narrower on one photograph than it did on the other photographs. Two of them showed it quite wide and two quite narrow. The

witness said: "I think you could, with trick photography you could make it wider or narrower." (Vol. XIV, p. 1964). He said he hadn't been across the river at that time. The pictures show what appears to be quite calm water since people could stand in the row boat. He didn't have occasion to test the depth of the channel, couldn't say whether there was more than one channel of the river, didn't wade out into it or anything, didn't own a boat until about 1956 and only hunted along the river along the bank. He hadn't been out in a boat and he had not been along the Iowa shore. On cross-examination, it was brought out that he was positive the pictures were taken about 1932 or 1934 but, in his deposition taken on February 22, 1968 he testified that he was "... pretty sure it was 1931. In our photo album it was marked 1931." During the trial, however, he testified his wife had written down the dates of the pictures in the book they came out of which were 1932 or 1934. On direct examination he testified his earliest recollection of the river was about 1925 when he drove down there with a horse and buggy, but on cross-examination it was again brought out that he had testified in his deposition that he did not have occasion to go over to the Missouri River in the vicinity of Rock Bluff until in the 30's. He also testified on one of the photographs (Ex. D-739 and D-740) that out on the water there appeared to be a shadow which he thought was cast by some tall trees up on the bluff. He said the trees would probably be six or seven hundred feet away. He refused to admit that what he called the shadow in the water was a sandbar and finally stated he didn't truthfully know. He also admitted there might be water

going around on the east side of the wooded area, but, again, he wouldn't know because he had never been over there. He didn't remember any sandbars there and said when he was there on that particular day, the Missouri River was "all water." He was asked if he ever stood up in a boat in the main channel of the Missouri River and said he wouldn't get out there in a row boat. However, he was standing up in a boat in one of the pictures (Ex. D-739).

Will Mindford who lives at Murray which is five miles from the old town of Rock Bluff had some photographs taken in 1916 when he would have been about ten years old. He went down there on a picnic when his parents were trying to sell an automobile. He believed it was late spring or early summer since he didn't believe there were very many leaves out and he thought they had coats on at that time because it was chilly. Mr. Mindford was quite eager to interject that one of the photographs was taken of the main channel of the river. Picture D-737 didn't appear to depict any part of the river as presented in the evidence. He couldn't tell whether the dark lines which he would say were small willow trees across on the east bank were on bars or whether it was the main bank. The witness had no idea of the kind of camera which was used by the man taking the pictures, Mr. Baxter, or of the kind of lens or film used. He had not been out on the water before that occasion, he was ten years old at the time, and yet he had an opinion of the width of the "channel" between Queen Hill and those willows in the picture. He has never crossed the Missouri River in a boat. Upon ques-

tioning by the Court, he stated he did not have a boat. The last time he hunted on the river was probably five years ago, and in the 1930's he was on the river probably "half a dozen times". The witness' testimony concerning the 1916 period was an isolated statement of a ten year old witness who had not had sufficient observation and knowledge of the river except a casual look at it. The picture is not inconsistent with the testimony of Captain Neuheuser and other witnesses, and there might have been wide but shallow water at times near Queen Hill and Rock Bluff on the west side. In flood time the river might inundate the area from bluff to bluff. On cross-examination, the witness didn't know where the originals of the photographs were. They were delivered to Mr. Clark Wiles and had not been returned. This is the same Clark Wiles, defendant in a law suit brought by Mr. Babbitt and the witness has known the Wileses all his life and they are old friends of his.

Mr. Roy O. Cole was another casual witness who only picnicked at King Hill. He had some pictures taken supposedly in 1918 of the river. He testified there were some sandbars in the river. When asked by the Court how many so-called channels he saw, his answer was "I can see the one main channel." This was another witness eager to identify the main channel. He didn't do any boating on the river except at one occasion on a picnic. He wasn't on the river very much. The witness was asked to identify where the main channel was on a photograph (Ex. D-730) which showed more than one channel and the two channels appear approximately equally wide. Mr. Cole identified another picture taken about 1908 or

1910 between Rock Bluff and Queen Hill which shows water which he called "a little back water" and "It wasn't so very deep." There was a sandbar in the back of the picture with willows on it and Mr. Cole testified that there was no current in the back wash (Ex. D-732). He couldn't testify to the size of this channel on the other side of that sandbar because he couldn't see it from where he was standing. This bayou or back wash was also shown on Exhibit D-733 taken in 1908 or 1910. Mr. Cole was also quite willing to identify the "main channel" from some of the other photographs but it is submitted that none of the photographs is inconsistent with the testimony that, at some times, there was shallow or wide water on the west side in the Queen Hill vicinity. The pictures certainly seem to show a substantial island or bar area and equally substantiate the fact that an island or bar was there which was on the west side of the main channel. His home was six or seven miles from Queen Hill. In the years 1908 or 1910 there wasn't any river action cutting into the Nebraska side in the vicinity of the photographs to his knowledge. This witness is related to Glenn Wiles by marriage. His sister married a Wiles. The witness did not ever know Harvey Shipley, Ernie Shipley, or the Wattses. He also didn't know John Nottleman although he had heard of him. On redirect, when asked what was in the area depicted in the photographs today he said "I really haven't been over that territory."

Mr. Glenn Wiles also testified how he was at King Hill for a picnic in about 1910 and 1912. On cross-examination, the witness said he met Harvey Shipley once but he didn't know anybody who lived on Nottleman's Island.

His son farmed on Nottleman's Island and, when asked who owned the land his son farms, the witness said "They said the State of Iowa at the sale." His son was farming the land by permission of Babbitt and he recognized Babbitt as the owner of part of it. He owns land adjoining Babbitt's land. Presently, his son and D. M. Babbitt are engaged in two legal disputes, one over the land his son claims under a quit claim deed from the Federal Government and the other under a contract for clearing the Babbitt land. He bought some land next to Babbitt and turned it over to his son. Mr. Babbitt sued his son for \$20,000 in the District Court of Cass County, Nebraska. The witness and his son, Clark, have been engaged in assisting the State of Iowa in preparing this litigation in talking to witnesses and getting photographs. The State of Iowa has never made any attempt to claim any land owned or claimed by the Wileses. The witness was just helping the State of Iowa although he said he didn't have any financial interest in the outcome of this litigation. Mr. Wiles testified that in 1923 from the top of Queen Hill he saw no islands in the river looking south, none looking southeast and in the river itself there were no islands and no bars. Looking east in 1923 there were no islands but there might have been some sand bars on the east side. Looking north up towards Plattsmouth from King Hill, he could see no islands or bars. The witness was referred to the Seth Dean map of August, 1922 and testified he never heard of "Calumet Point" which is King Hill. He didn't recall any islands in that location in 1923 although he finally admitted there might have been a sandbar. He didn't think it had any timber on it at all. He then supposed the sandbar with

willows on it out from Calumet Point did exist in 1923, but he never saw it there. If it was grown up to willows, you couldn't see what was on the east side of it from the west bank. He didn't even know Nottleman's Island existed until someone came over and told him about the property for sale in the vicinity and that was around 1960 or 1962. Mr. Babbitt told him about it and that was when the United States Government sold some Schroeder land for taxes to satisfy an income tax lien. From 1908 to the present, he expected that he stood at the base of Queen Hill and looked straight east across the river ten times and, all those times, he did not see an island straight east from Queen Hill. All you could see were trees from the west bank. He said that is about all you can see yet. On redirect examination, he testified there was an island over there prior to 1962. The Shipley Estate had a sale and they said Shipley used to go back and forth to farm across the river. That sale was at Rock Bluff.

Defendant then called Clayton Pierce, who hunted on the north end of the Duvall Bar in about 1926. This was north of Queen Hill and they went across the east channel right at the south end of the Duvall property. The Duvall Bar was on the east side of the east channel and had nothing to do with the island. It was bare sand west of his farm ground. When he went hunting he was between the two channels and could see the river split. He estimated the east channel was in the neighborhood of 800 feet wide. In 1932 or 1933 he hunted coyotes on the island. He worked sounding for the Corps of Engineers from King Hill south and said there were places where

a thirty foot line would not reach the bottom south of King Hill about 600 feet from where they put in the rock dam. The two channels came in just a little north of King Hill and then they split again right south of that and made another island down west of Bartlett. This witness testified the main channel ran on the west side south of King Hill. On cross-examination the witness seemed quite confused in identifying Haynie Slough, Keg Creek and Watkins Ditch. On examination by the Court, he testified there was probably half a mile of timber on the island (Nottleman Island) in 1926. There was some land in there cleared at that time. In fact, there was a shack out there. He didn't know who put the shack up or who it belonged to but he was over on that island with his hounds running coyotes. In 1926 he was working around the edge there which is where the coyotes generally ran and he didn't pay any attention to the crops or anything, but he noticed one shack out there. He also said:

“We weren't in there only a couple of times running coyotes.” (Vol. XXI, p. 3026).

On further cross-examination, he testified that Woods Brothers Construction Company weren't working at all at that time and had not done any work on that part of the river in 1926. Forney Brothers and Patton Tully were working that in 1932 and 1933. This witness didn't cross any bank work at all when he was there in 1926. There were willow roots along where the bank had been caving where he had his boat tied. He said the bank had been caving and the bank always caves along a place like that. It was the Iowa bank that was caving in.

Clarence H. Chambers, 61, has been employed as an Equipment Inspector for the Iowa State Highway Commissions for 18 years. He was a service manager for an automobile dealership in Glenwood, Iowa since the fall of 1938 except from 1942 to 1945 when he was in the service. From November of 1922 until 1930, he lived in California. He was born in 1907. He testified concerning fishing in 1919 or 1920 when he was twelve or thirteen years old, but also stated:

“ . . . oh, of course that is a long time ago and a small boy's memory might not be exactly accurate, . . . ” (Vol. XVI, p. 2235).

He was on the shore at all times where he was fishing and his father in those days did not have a boat. They couldn't see what was on the other side of Nottleman Island except for when they were near the ends. He said he had no way of knowing how deep the water was other than in the area where they were fishing and he would say, based upon the fact his father liked to put his bobber about six feet above the hook, that it must have been approximately six feet. This witness only got a glance at the channel at the end of the island and was really in no position to make any comparison of the water on the east and west side. The witness was in California between 1922 and 1930. Then he lived nine miles east and a mile north of Sidney. This was a considerable distance from the Missouri River. He supposedly hunted in this same place and he said they would put their decoys as far as they could put them with a long willow pole and there was some curvature there that invariably would wash them to the east shore. Until he owned a boat of his own in

1950, he could not see what the nature of the channel was west of the island. As he recalled, the nature of the current in the "island chute" in 1930 was the same as back when he was fishing as a boy.

In 1920 the witness lived in Fremont County north and east of Sidney which was quite a ways from the river. His only familiarity with the river was occasional fishing and hunting trips. He first said that, two years ago when he hunted there, he got permission from Mr. Bill Watts, but then he stated that he believed Sargent was farming some of that land. When he hunted on the island he believed the farm was being farmed by a man by the name of Sargent who's on the east side of the chute and Sargent gave him permission to go in across where he was farming to hunt. When asked if at any time from 1930 or even before that clear up to the present day, he had ever seen any property in that vicinity posted he said, "Yes, very much so." But it was never posted by the State of Iowa that he knew of. In the early days he didn't get as far north as Keg Creek or Pony Creek. Where the waters came together at the south end of the island, he said the flow went approximately south. He never really paid that close attention. When asked if the appearance had changed when he came back in 1930, he said some appearance changed. He didn't recall ever seeing any work done along the river on the Iowa side in 1920, 21 and 22. On redirect examination, he again referred to "a small boy's memory". This was when he saw boats supposedly start up the west side of the island but he could not testify whether the boat made it or got stuck.

Mr. Claude R. Hutchinson, 74, lived at the west edge of Rock Bluff and, when asked what his earliest recollection of the Missouri River was with regard to the King Hill and Queen Hill area, answered: "Well, I was never much interested in the river and I never got around to take any interest in it." (Vol. XVI, p. 2258). On cross-examination, he was asked if there were islands or sandbars in the river in those days and his answer was there must have been but he didn't recollect it. This witness obviously had little knowledge of the river.

Iowa offered the testimony of Philander Chase Patterson who lived in the heart of the town of Rock Bluff. Mr. Patterson was born on February 24, 1890, and testified on direct examination:

"Q. Have you ever seen the Nebraska bank of the river any farther east at Queen Hill than about where it is now?

A. Oh, yes.

Q. How far?

A. Well, I don't know. We walked out there quite a ways across there. It could have been a quarter of a mile. It could have been three-quarters of a mile. I never paid too much attention to distance, although we walked a ways to the flat bar to get out to the river.

Q. And when was this?

A. That was about 12, 13.

Q. 12 or 13?

A. Uh huh. We swam across to the island and played around over there.

Q. And what kind of a bar was it that you walked

across in 12 or 13?

- A. It was a sand bar mixed with sand and gumbo and everything.
- Q. And when did the river come back closer to Queen Hill?
- A. Let's see. I just don't—I don't know just—I don't remember just when it did come back in there.
- Q. Did it ever come back closer to Queen Hill before the Corps of Engineers went to work in the early 30's?
- A. No. I think it was out past there when they worked there, as near as I remember it at the time.
- Q. Did they push it back to where it is now?
- A. They pushed it back some, yes." (Vol. XVI, pp. 2275-2276).

Mr. Joe E. Bulin, when first called by the State of Iowa, testified on cross-examination that at King Hill there was an island out in the river which at that time always went by the name Nottleman. He testified the main river was on the east side of that island and that was the island which he knew they called Nottleman Island. After some discussion between the Court and Iowa Counsel concerning Mr. Bulin's testimony that the main channel was on the east side of Nottleman's Island, Iowa recalled this witness after the noon hour but there still was some confusion in his testimony. He talked about Gochenour Island and Tobacco Island and stated that Tobacco Island was north and east a little bit, but mostly north, of Gochenour Island. He did acknowledge that, in the 20's that it was a fact that there was considerable

river cutting on that east bank a little bit south and a little more east and the river was doing the cutting.

Also, on cross-examination following Mr. Bulin's second session of testimony, he testified he did not recognize the scene in photograph 730 which was taken by Mr. Cole.

Mr. Percy Wheeler was another casual witness called by the Plaintiff. He testified to one occurrence which supposedly happened in 1908 when he was out getting some sand on a bar east of Queen Hill but he said:

"I never paid much attention to the river, only just that one time, that sand, that time we bought that critter there." (Vol. XVI, p. 2305).

He said they bought a bull from Chase Patterson's father who "had a pasture run out quite a ways from the bank. There was water out beyond that, small streams, wasn't a big hard current or anything like that." (Vol. XVI, p. 2304). This was evidently with reference to Queen Hill and King Hill. Looking out from Queen Hill, he imagined the river was about a block wide or something like that, and maybe a little less. When asked if there were any other channels opposite Queen Hill back in 1908 which you could see as you stood at Queen Hill, he said "You might clear over across there, yes. They had a boat up to the end, just a fishing boat that was parked there. They were fishing at that time over there, pretty well over to the—clear over to the other side of that bar there. They were on the bar. That's the other bar that's struck down in there, you know. I don't know what happened, how that is; I didn't pay any attention to the river for quite a while." (Vol. XVI, p. 2306). This

fishing boat was out to the edge of the bank. That was about a half a mile pretty near, a little bit north and east of Queen Hill.

The Schemmel Area

Iowa called two witnesses whose testimony was taken by deposition concerning the very early location of the river in the Schemmel area. Both of these witnesses were casual witnesses and did not live close to the area of the Iowa Chute. Oscar L. Hays, of Farragut, Iowa, testified he was 81 years old and he moved to the northwest corner of Missouri when he was eleven. This was in the year 1897. He lived there eight years. On direct examination he testified he had occasion to go to Payne Junction and they would go about a mile east from where he lived and then north up to what was called the Hamburg Road and then take the "river dike road from there on to Mose Givenses corner." This old dike road was probably just five rods west of Albert Propp's house and goes right through the barn yard. Although the witness talked about the trip to Payne Junction, on cross-examination he testified that he didn't make the trip up to Payne very frequently, he supposed maybe a couple of times a year or something like that. He didn't make it every year from 1897 to 1905 and he can't remember going up to Payne until he was a "pretty good-sized boy". That was when he was "fifteen maybe". It could have been 1901. This indicates he certainly wasn't as familiar with the area as those who were living in the immediate vicinity of the Iowa Chute. This witness did testify that he left this farm in northwest Missouri in approximately 1905 and, when he returned in 1913, the

river was within a half mile or closer to the buildings. The river had moved east maybe a quarter of a mile. The witness also testified to cutting right where the Hamburg Road came to the river. He said the river took the west end of that road. It cut farther south and eventually took the whole bend out there, "cut it straight off". It just kept cutting away into the east side. He also remembered some work done in the vicinity of Hamburg Landing by Woods Brothers who were the first ones who tried any rip-rapping in there. He stated this was somewhere around 1905 up to '10 approximately. The Corps of Engineer Annual Reports show Woods Brothers did work in the vicinity of Hamburg Landing in 1919 and the 1923 Corps of Engineer map shows retards so the witness may have been as much as ten years or more off in his recollection.

Lon Baker of Hamburg, Iowa, born 1879, testified his father had a farm about three miles straight north of Payne Junction and a little west. This is considerably north of the Propp place. When first asked when he first recalled hunting in the area west of the Propp farm, he answered around 1900. He then changed this to "... 1985—or 1895, I mean." He didn't recall any branch of the stream which Mr. Garrison (in a deposition taken by the State of Iowa the same day) referred to as the Schwake Chute. When asked if he ever had occasion to hunt in the Iowa Chute his answer was: "Not very much, no. No one ever hunted very much . . . I never hunted much on the Iowa Chute." (Vol. XXII, p. 3199-3200). The witness said he hunted mostly at White Lake, north of Payne Junction. He purportedly remembered a flood of '81 when he would have been two years old. He was married in '98. He was

asked if he remembered the river cutting over towards the east during those years and answered that he did. When asked where, he said that must have been up along the Mose Givens place. He was lying a little behind the dike, probably five or six feet wide, and the river was cutting pretty bad there. This was on Mose Givens place. He was pretty sure. He remembered

“ . . . laying there against that dike. After that dike went in when I was laying there against it, four feet wide, I would of went in the river. Boy, I moved from there right now.” (Vol. XXII, p. 3202)

He testified this dike was south and west from Mose Givens' buildings but he couldn't tell approximately how far. He said he was eighteen or nineteen years old, so this must have been in '98 or '99. He said he thought it was the Payne Dike which was the one washing into the river. He said he didn't hunt around Mose Givens place when he started to hunt but he hunted around there in about '98 or '99, something like that, a little earlier than that. The witness's testimony appears to be very confusing. Plaintiff would also point out that the testimony of Mr. Cockerham and Mr. Garrison, both of whom lived right in the vicinity of the Propp place, was that there were no other levees in the area so, if Mr. Baker was in fact on a levee in 1898 or 1899 and the river was cutting it, this would have had to be along the Iowa Chute.

Otto Hinze, born 1900, of Hamburg, who testified for Defendant didn't start fishing on the Missouri River until about 1915. He testified that anywhere from 1915 on up to the present date there was an island there which was Schemmel Island and was then asked on direct examination:

“Q. Were there two main channels around the island, one on the west and one on the east?

A That is the way I had it.” (Vol. XXI, p. 3088)

He wasn't up to the north end of the island until a little later on and, about 1915 to 1920, he was never over to the west channel at that time. The witness didn't own a boat of his own until 1936 although he fished with some people who did in the early 30's. He testified you couldn't see the channel around the other side of the island. He testified there was quite an island in there but it filled more after the Government did that work. There were a few small willows, it looked like, which grew up over there before the Government did the work. It was back in the 20's. He then talked about work which the Government did on the bank and when asked if that would be on the east bank of the Givens Chute, his answer was “On the east bank, yes, of that river.” (Vol. XXI, p. 3092). They did some river work to keep it from cutting. They put trees in there, and cabled them to the bank and threw them in. The river cut quite a bit there in '21. That would be a little south of the island.

The witness did commercial fishing since 1936 and he thought the Army Corps of Engineers started work in the area around 1935. He testified he was never over to the west channel until after the Corps did some work because he bought his boat and motor in 1936. The witness thereby disqualified himself from describing the west channel until that time. He also testified that the east channel, when the river was up, was quite a channel through there, quite a river. He didn't know that any other commercial fishermen fished down there by Hamburg. He didn't testify as to how much time he

spent on the river fishing. He did see the Government work boats go up the Givens Chute.

On cross-examination, he testified that the farm which he was farming by Hamburg Landing was cut almost to pieces in 1921. He was renting there. It cut better than a quarter of a mile up that bank to the north of Hamburg Landing. Woods Brothers went up a quarter of a mile or so from the boat landing with their work. He imagined that they put in a thousand or more trees all up and down the bank above and below Hamburg Landing on the Iowa side. He testified that the old Iowa Chute was probably four feet deep, the bottom of it, and then you had to go down a bank and then back up again. He went down a bank on the east side and then up a bank on the west side. He also knew of some buildings south of Hamburg Landing about a mile and a half which had to be moved back to get them away from the river. The river just kept cutting down there and that has been years ago. It has been cut back there for half a mile from the road south. The bottoms of the banks of the Iowa Chute were probably a hundred feet or a little better apart. He said at the top, of course, "you know how banks slope". The witness has seen water in the Iowa Chute and he has fished in it. There was water there when the river was real high, until they got dikes over there to keep it out. Mr. Hinze's testimony in response to questions from the Court that the old people at one time claimed that was the Missouri River, has previously been referred to. He also testified that the west bank or inside bank eventually filled in and the chute stayed open for a few years after the rest of it filled in.

Mr. Hinze did not have much familiarity with the

river until after 1936 and this was following the commencement of the work by the Corps of Engineers.

Albert Propp, 62, testified that he moved to what has been referred to in this case as the Propp place in 1912 from Kansas. He was seven years old at the time. His buildings are east varying from a hundred feet to between six and seven hundred feet from the Iowa Chute. When he moved there, the land west of the Iowa Chute was in small timber and brush. Most of it was quite small timber. He also mentioned the Schwake Chute which was better than a half mile from the river. There used to be a chute go on both sides of the island (Schemmel Island), but since the Government work, they have shut the one on the east side of the island off so that makes it pretty close to a mile now from the main channel of the river. He also referred to a levee which made a circle around the outside of the Iowa Chute which ran north of his place about a half a mile to about three miles south and he marked this levee on Exhibit P-1036 (Appendix B). The levee was about six feet high and probably that wide on top or a little wider. He testified he had seen the Iowa Chute full and running over and, in fact, he has seen pretty near all that land over west of the Iowa Chute under water. In 1952 the whole bottom was under water and in 1947 the water got up to that farmer-made dike. Mr. Propp testified that the area that is now Schemmel Island began to form as an island in the 20's and it seemed as though every time they had a flood the island would get a little bigger. He also testified that, when the river was up, there was always water in the Iowa Chute. It was good fishing. That was before there was any obstruction to the water going through there. He never got over to the channel west of the island. The first people

that he knew of on the island were a couple of fellows who built a shack over there. It was back in about 1918 or along in there. There was John Hilger and Walt Williams who built a shack over there.

The first time there was any farming was when Mr. Schemmel cleared it and started farming it along about 1953. They did some clearing first and it was two or three years later before they did any farming to amount to anything. The witness also marked the Schwake Chute in green upon Exhibit P-1036 (Appendix B). He had never heard that old levee called anything but farmers levee. He testified that levee was put there during high water times to keep the overflow from going back over to Hamburg. He testified about some low land which had been opened up by bulldozers where they had made a water way which goes down to where the Iowa Chute empties. The Schwake Chute is still there but is filled in from previous overflows. The Iowa Chute connects with the present Missouri River both north and south of his place. It just makes a circle out of the river and back into it.

The witness did not know of any dikes or levees which were built between the old farmer levee and the present levee. He testified they got most of the dirt for the present agricultural levee from the river side of the levee. They used scrapers and some of the ground they pumped out of the river and the rest of it was hauled in with heavy equipment. There were no levees between the old farmer levee and the river between 1912 and 1948. Mr. Propp testified that he leveled the old farmer levee across his farm and discarded it. He now farms across it. He

has made some ditches and has filled in a few low spots in the field and kind of helped level it a little for drainage. Some of this was to the west of the old farmer levee. He was asked about the value of his farm land and indicated he didn't know what his was worth but some of them are selling as high as \$800 per acre.

The witness or his father never got a deed or document from the State of Iowa indicating that Iowa didn't claim or own the land to the west of the Iowa Chute. They never had any transactions with the State of Iowa. Woods Brothers Construction Company did a lot of rip-rapping along the river to the south of him where the river was cutting back and forth and it got to cutting pretty bad on the east side at one time. That was back in the 20's. It was about a mile south of his place just north of the Hamburg Landing. He stated you used to hear all kinds of stories and you still hear them that the river was cutting toward Hamburg. There were no farmsteads west of the Iowa Chute in 1912.

This witness could well be an interested party since a great deal of the land he presently claims and farms could be abandoned channel subject to claim by the State of Iowa, should they so desire. He also was not on the river except casually and was primarily a farmer. His house is now approximately two miles straight east of the present designed channel of the Missouri River.

Iowa called another witness, James Givens, who also could be interested in the activities in the State of Iowa since his family has farmed land riverward from the Iowa Chute. On examination by the Court, the witness

admitted that he hasn't been over Schemmel Island but he knew where the north end is. His earliest recollection of it was along 1935 or 1936. It was forming as an island as of 1936 with willows on it. Then there were places out there with some pretty good sized trees, too. These were cottonwoods. He was asked about his recollection of that mass of land when he was speaking of being eight or nine years old and he said he was never over that part of it. He remembered a bar being out there, but he has no firm recollection. He said it was just a willow patch and it looked like a pretty good place out there at that time. It doesn't look quite so big now, but it sure did then. Gude's Island was right straight west from their north line. The witness testified that the river was a single main channel in those early days when he was six or seven years old right out from the Givens land with just a few chutes. He has never seen any canals dug by the Corps of Engineers in that vicinity. He has never been at the south end of Schemmel Island, not when the river work was on.

On cross-examination, the witness testified he is the brother of Ben Givens and that Sally D. Givens is Ben's wife. Helen Givens is the witness' wife and Frances Givens Taylor is his oldest sister. When asked if some of the land that presently is on the home place was old river bed, he stated that he supposed that most of the bottom at one time was old river bed. Specifically, the western portion or part of the Givens home place is old river bed. This land had title acquired to it before his time. He didn't remember it. The witness then was referred to the chute running up and down between

Schemmel Island and the bank and testified that there was never a claim to his knowledge made by the Givenses for some land on the river side of that old chute. He said he, himself, never claimed that land. It is possible there are Givenses which claim that land, but not the witness. When asked if the State of Iowa ever claimed that land, he said he couldn't say. He supposed they probably have but he didn't know for sure. He didn't know of any fence line agreement with the State of Iowa with regard to that land, although the witness Jauron testified he negotiated a fence line agreement with the Givenses.

The witness settled up and got rid of his interest in the home place in September of 1964 and this included his wife's interest. The witness was referred to the 1960 aerial photograph (Ex. P-256) and the witness marked an area which the Givens family claims. He then denied that he knew what the family claimed and said he was referring to the way the deed and abstract reads as he remembered them. One calendar year after the water quits running through "this little trickle down through here" that would be their accretion. As far as the State and Givens trust, he had nothing to do with it and didn't know a thing about it. The witness marked the "little trickle" and, on Exhibit P-256, he marked in green with a dashed line the south boundary of the Givens place extended to the river. He has marked to the north of that two chutes or trickles which flowed to the north of the dashed line. He testified this would definitely in his opinion belong to the State of Iowa or Givens Trust, one of the two. He didn't know which.

When asked if the State of Iowa ever claimed it, he said to his knowledge, no.

The witness testified he was sometimes known as Jim M. Givens. He was then referred to the action in the District Court of the State of Iowa in and for Fremont County entitled "*Ben E. Givens, Jim M. Givens, et. al. vs. Moses Payne, et. al.* (Ex. P-2698). He didn't remember for sure what land was involved but, when asked if it involved old river bed, answered:

"If it involves the Iowa Chute, it would be the old river bed." (Vol. XXII, p. 3161).

He denied that this a law suit, but said it was "just a quiet title action." He said there was no law suit; it didn't go to court.

The witness also testified on cross-examination that he is sometimes known as James M. Givens. He is the James M. Givens also known as Jim M. Givens who was one of the plaintiffs in an action in the District Court of the State of Iowa in and for Fremont County, captioned *James M. Givens, also known as Jim M. Givens, et. al. versus Henry E. Schemmel and Lucile Schemmel*. That involved land north of the dashed line which he put on Exhibit P-256 which is at the north end of Schemmel Island. In about 1963 he was in dispute with the Schemmels over the land enclosed by the green line which he placed on Exhibit P-256. North and south of that green dashed line on Exhibit P-256, both pieces of land are a part of what is known as Schemmel Island or Otoe Bend Island. He was asked if the whole island was accretion to the bank and answered: "I suppose

at one time, yes.” (Vol. XXII, p. 3164). Mr. Givens then marked on Exhibit P-256 an area north of the green line to the river and wrote the word “Givens” and drew what appeared to be four black lines running from the river eastward designating the Givens claim. The witness hasn’t heard anything about the State of Iowa claiming that land which he designated on Exhibit P-256 and he said it would be reasonable to expect that, if the State of Iowa came in and claimed that land, he would find out about it. In response to a question from the Court, he said he knew of no claim made by the State of Iowa prior to 1964 when he sold out.

An examination of Exhibit P-256 shows that some of this land the Givenses claim is north of the Windenburg traverse but of the same character as the Schemmel land.

Mr. Givens couldn’t say whether the State of Iowa claimed anything north of that trickle or tendril of water.

This witness and his family obviously have an interest in this entire situation, both by the fact that the home place is partly abandoned channel and because they have a law suit pending against Henry Schemmel which would involve some land to which the State of Iowa might have a claim if it should ever desire to assert it.

Iowa called another witness, Frank Starr, age 56, who was a State Conservation Officer for the Iowa State Conservation Commission. This witness was so obviously prejudiced that his testimony should be discounted. He apparently was not listening to the questions as in his answers he kept putting in “main channel” and “west side” when he hadn’t been asked questions calling for

such answers. The witness seemed well indoctrinated on the west side. He also testified he continued to hunt in that locality until he left the area in 1938 and he saw in 1938 where the Corps had stabilized the channel. He testified they stabilized the channel in the same place as where the main channel was as he had described it. This is in obvious conflict with all of the evidence concerning the Otoe Bend Canal which was dug in Nebraska and where the stabilized channel is located.

Iowa's Professional Witnesses

Iowa called Mr. Raymond L. Huber, age 61, who worked with the Corps of Engineers from 1926 until 1963 when he retired. This witness has testified for the State of Iowa on several occasions in connection with their quiet title actions or claims to condemnation awards for lands along the Missouri River.

In the early part of Mr. Huber's testimony, he was asked by the Court:

“The Court: And when was the planning, the design of that work undertaken?”

The Witness: The design in about 1930 to 1932.

The Court: What kind of channel did you have before that?

The Witness: The river was completely wild, choked with many, many sandbars, 18 inches deep, 2 feet deep. In the bends, the constant caving of the banks. The river was switching from side to side. It was completely wild and uncontrolled.

The Court: Did you have a navigation channel anywhere at that time?

The Witness: There was no navigation channel. * * *

The Court: We are talking about the 20's?

The Witness: We are talking about the 20's, yes, sir, and actually prior to the completion of the channel and getting it into this designed trace it was wild in the areas where we had not performed any construction.

The Court: As I understand it, there wasn't any navigation channel until you made one by the structures you put in the river to control it?

The Witness: That is correct, sir''

(Vol. XXIII, p. 3268-3269).

However, when handed a 1931 map of the Missouri River of Otoe Bend (Ex. D-291-A) the witness testified it showed where the main channel of the Missouri River was when the map was made in 1931. The court then questioned the witness in light of his earlier statement that there was no navigable channel at that time and the witness first defined the channel as "the deepest area of the water where steamboats or any boats could navigate, sir." (Vol. XXIII). He then said there wasn't any commercial navigation and he was just talking about the deepest channel, not necessarily navigable. On direct examination, he placed a green line on Ex. D-291-A to show the deepest thread of the stream in the Otoe Bend vicinity on the date of the map, July 16 to July 23, 1931. This was a hydrographic survey and, on cross-examination, the witness testified it was easy to draw the main thread of the stream from a hydrographic survey and, if he made an error in drawing that main thread on the hydrographic survey, it would be fair to say it would

probably be far more likely that greater errors might be made on aerial photographs or the maps that show no soundings whatsoever. The witness testified in the case of *State of Iowa vs. Henry E. Schemmel* in the District Court of the State of Iowa In and For Fremont County on or about July 30, 1964. He was called as a witness for the State of Iowa, Plaintiff in that case, and that case had to do with the formation of this same Schemmel Island which was referred to in the present case. He was under oath in that case and drew the deepest thread of the channel on several maps. The witness was handed an Exhibit marked "Exhibit No. 120" from the court file of that case and he recalled the exhibit. This was a map similar to Exhibit D-291-A. It had a line in blue with a "T" at the top and a "T" at the bottom. The witness drew that line and it purported to be the "thalweg". The line on Exhibit No. 120 in the Schemmel case which he testified to in 1964 went to the west and on Exhibit D-291-A in this case was drawn by the witness to the east. The witness placed this "1964 thalweg" on Exhibit D-291-A in red and testified that the maximum distance between the red line and the green line on Exhibit D-291-A was 1,100 feet.

The witness testified that there were no reconnaissance maps made at Otoe Bend prior to the start of construction. He readily stated that the reconnaissance map of April 3, 1934 indicated where the thread of the stream, the deepest thread of the stream, was on that date, even though they were made two years before he was in the area. It was pointed out that Iowa had criticized these same reconnaissance maps in

their brief in another case. The maps don't use the word "thread".

The witness didn't see the Otoe Bend area until 1936, and by that time the work had been going on there for two years. He testified there were bars on both sides of that channel. The dikes were in which prevented them from going to the left. They made many, many pilot channels to move the river over into the designed channel and they used a type of dredging in Otoe Bend in 1938.

The witness was asked to point out the deepest thread of the stream on a 1930 map (Ex. D-1132) and 1930 aerial photograph (Ex. D-1092). The following exchange then occurred:

"Mr. Moldenhauer: Mr. Huber, you testified in other lawsuits, have you not, concerning the constant (reconnaissance) sketches and aerial photographs?

The Witness: I beg your pardon, sir?

Mr. Moldenhauer: You have testified in other lawsuits, have you not, concerning constant (reconnaissance) sketches and aerial photographs?

The Witness: Yes, sir.

Mr. Moldenhauer: Do you recall testifying in the case of the United States of America, plaintiff, v. 242.83 Acres of Land, More or Less, in Harrison County, Ned Tyson, et. al., at the United States Courthouse in Council Bluffs in 1959 before Judge Edwin R. Hicklin?

The Witness: Yes; I did, in that case.

Mr. Moldenhauer: Do you recall being asked these questions and giving these answers: — I be-

lieve this is by Mr. Murray. Yes; by Mr. Murray on cross-examination.

“Q. Now, Mr. Huber, I wish you would describe — You have testified at length this day on the basis of these reconnaissance maps, you call them. Is that what you call them?

A. That’s right; yes, sir.

Q. I wish you would describe for the Court how those maps are made.

A. A reconnaissance map is a sketch, and it is made from a boat proceeding downstream with the current, and as the mapping party proceeds downstream the bank lines and bars are sketched on the map, and at the same time soundings are taken and the boat endeavors to run in the deepest part of the stream, deepest part of the channel, and soundings taken in that tread of this channel are recorded on the map.

Q. Now, about how fast does this boat travel?

A. Somewhere about 8 miles an hour.

Q. Would that be including current of the river, or plus the current of the river?

A. No; that is faster than the river current. Your river current will average about 4 to 5 miles an hour when it’s not in flood stage. Then it would be about twice the velocity of the current. About 8 miles an hour.

Q. Well, then, you mean water-wise the boat travels about 4 miles an hour?

A. Faster than the water is moving, or a total of 8 miles per hour.

Q. And you, or somebody from your office sits in this boat with these charts in front of you and

then as you go down the river you simply sketch in what you see? Is that right?

A. That is correct; yes, sir.

The Court: So that actually would you say as an engineer that a photograph of what is seen below, an aerial photograph, would be likely to divulge more information as to the exact lay of the land than might be expected to appear upon a map that was man-made afterwards?

The Witness: Yes, sir.

The Court: In fact, it's kind of an old-fashioned way of establishing a record, is it not?

The Witness: Yes sir, but we get certain soundings which are of interest to us, which we can't get from the other.

The Court: That would be true.

Q. (By Mr. Murray) The depth of the water you get this way, and you couldn't get that from an airplane, is what you mean?

A. Yes, sir.

Do you remember being asked those questions and giving those answers?

The Witness: I did testify in that case. I don't remember the specific questions now in that particular light, but I'm sure I must have from what you have read.

Mr. Moldenhauer: Are those answers accurate?

The Witness: Yes; they must have been my answers.

Mr. Moldenhauer: You can't determine the depth of water from an aerial photograph, right?

The Witness: That is correct.

Mr. Moldenhauer: And the reconnaissance maps are just sketches which are not — don't even get topography as accurate as an aerial photograph, is that correct?

The Witness: That is correct."

(Vol. XXIII, pp. 3315-3318).

The witness then claimed he could take a section of the river such as Otoe Bend, where you find a number of bars and channels and it was his opinion he was qualified to say which one of these channels is the deepest because he has studied this river for years, knows how the channel acts, how it comes off one bank, goes through a reach, how it shapes the bars. Upon examination by the Court as to whether he was qualified to go back to the year 1930 and put his mind back to 1930 and use these instruments and say where the main thread is, he said "No question about it." (Vol. XXIII, p. 3322). The witness then marked in green the "deepest thread of the stream" on Exhibit D-1123, the 1930 map made from the aerial photographs taken on September 17, 1930. When asked by the Court when he first saw trees growing out on that Island or vegetation, he first asked to refer to the reconnaissance maps. He couldn't point out the year from his independent recollection. The witness was then handed Exhibit D-1092, an aerial photograph taken in 1930, and stated that, although it was much more difficult to draw the deepest thread to show accurately the location of the channel, in his opinion, he could still do it from the shape of the bars and banks upon that photograph. He placed his initials at each end of the line which he drew in green. On cross-examination, Mr. Huber testified that he drew the so-called thalweg on the river on the 1930 Corps of Engineers

photograph in the Schemmel Island area and was handed what was marked "Exhibit 1-30" from the Schemmel Court file and he recognized that Exhibit. This was the aerial photograph dated 9-17-30 and was the same date and depicted the same area as Exhibit D-1092. The two thalwegs or main channels differed as drawn on the two exhibits. In this case, the witness drew it to the west of a number of sandbars down toward the lower end of a photograph and in the Schemmel case he drew it to the east. He placed the "thalweg" as he had drawn it on Exhibit 1-30 in the Schemmel case on Exhibit P-1092 in black. Here, again, his 1964 thalweg differs from his 1969 one just as it did on the 1931 hydrographic survey.

The witness also did not hesitate to express an opinion as to where the main thread of the Missouri River was at various dates on the maps of the Nottleman Island area. He placed the "deepest thread of the Missouri River" in 1890 on a print of the 1890 Missouri River Commission Map (Ex. D-605-A). On cross-examination, Mr. Huber identified the 1890 thalweg which appears on the 1946-47 tri-color maps and testified his understanding of the thalweg is: "The thalweg is the deepest tread (sic) of the stream as show on the 1890 survey." (Vol. XXIV, p. 3407). The thalweg appears on other Corps of Engineer maps and he testified that is the same line that he placed on Exhibit D-605-A in green in the Nottleman Island area. There was a small island on that map between the letters "nd" in the word "Island" on Tobacco Island and the word "McDonald" on the Iowa side of the river and Mr. Huber's green line went to the right or Nebraska side of the island on Exhibit D-605-A. He was asked what there is at that location which would cause him to place that thalweg on the west side of that little island just

above No. 627.9 in the river and answered that it was the general curvature of the bend upstream which led him to place it in that direction. He said there was a concave bank and it was his opinion water followed this concave bank and continued generally in a straight line off that concave bank. The witness was then handed Exhibit P-718, an overlay of the 1890 survey in the vicinity of Tobacco Island and Exhibit P-728 which is an overlay of the 1928 survey of the same area. The overlays were placed together and the witness identified the 1890 thalweg as drawn on the 1928 Corps of Engineers map (Ex. P-728). He was then asked to compare the thalweg as matched on the overlays of the 1928 and 1890 maps with where he put the thalweg on Exhibit D-605-A. The thalweg as shown on the 1928 Corps map is to the east of the small island as shown on the 1890 survey and at that point, the thalweg is right along the eastern bank. Mr. Huber's "thalweg" went to the west or right bank side of that same island.

The inconsistencies of the testimony of this witness in behalf of the State of Iowa in its various cases leads to the nearly inescapable inference that the testimony is constructed to fit the needs of the hour at hand. His willingness to set out in directions indicated by the skilled examination of Iowa counsel is further evidence of the disadvantage experienced by the individual land owner in resisting the claims of Iowa.

On cross examination, the witness testified that he was a member of the team that worked on the layout of the designed channel in the Otoe Bend area. The design was made by others in the Kansas City District and the channel alignment and structures in the vicinity of Otoe Bend were designed in Kansas City. He did not specifi-

cally lay out the structures but, after the lay-out was prepared he took the lay-out and was responsible for its transfer over to maps for reproduction and for sending to the Omaha district. In the Schemmel case, Mr. Huber had testified:

“Q. When was that channel for the river designed by the Corps?

A. In 1934.

Q. Did you have anything to do with the designing of it at that time?

A. No, sir.

Q. Was it designed at Kansas City or Omaha, or do you even know that ?

A. I am not sure which location it was designed in. If it was designed in Omaha, it would have been approved by the division office in Kansas City. I do not know for sure.” (Vol. XXIII, P. 3375).

With regard to the reconnaissance trips, Mr. Huber testified they sounded from Sioux City to Onawa in one day, from Onawa to Florence in one day, from Florence to Nebraska City in one day, and Nebraska City to Rulo in one day. So at least some of these reconnaissance trips covered 63 or 65 miles in one day.

Mr. Huber was first asked if, looking at the reconnaissance maps, it wasn't true that they only show the situation supposedly as of the date of the map and might not be reliable to show it at any other time. His answer was he wouldn't say they were not reliable at any time. “They do show the situation of that date. By comparing that with the later reconnaissance you can see whether any changes occur between the two.” (Vol. XXIII, p. 3387-

3388). It is possible that there are times when you do assume it is the same bar from an examination of the maps; it would depend on the construction that has been accomplished upstream and at that particular location, the location of the bar to which you referred, whether it is in behind the designed channel, and whether it is in behind the dike construction. The witness then admitted that he testified in the case of *State of Iowa v. Raymond*, the Deer Island case, that you couldn't tell what happened between dates on the reconnaissance maps, but that they only showed as to what happened as of the date of the map.

The witness testified they used land drivers as they drove the dikes out in the Otoe Bend area. Land drivers were used as you proceeded down into the dike system because there was a system or number of sandbars already in existence so that it was necessary to use a floating pile driver across any left bank channels, and rather than scour out the bars which were in the path of the dike, a mattress was placed on top of the bar and a land pile driver used to drive the piling across the bar. They didn't wash everything away in front of the dikes as they drove the dikes out. He also admitted that they liked to get the river over as easily as possible, and where there were bars in the path of the structures they retained them rather than washing them out. It was one of their avowed purposes to accomplish their work as expeditiously, economically, and as quickly as possible.

On direct examination Mr. Huber had been referred to several maps which showed soundings around the west side of Nottleman Island. On cross-examination, he was shown a reconnaissance map dated July 31, 1934 showing the soundings to the east of Nottleman Island with no

soundings to the west. When asked the deepest sounding shown on the east of Nottleman Island he first responded that 12 feet seems to be the deepest but is was then pointed out that the deepest was 15 feet. He had not examined that map. He was then referred to a reconnaissance map of August 31, 1934 which shows the east and west channels having been sounded around Nottleman Island. The east channel was sounded on a sounding map of September 17, 1934. Construction work had been done at the north end of Nottleman Island at that time. A figure of 15 feet of water in one or two places was shown on the east side of Nottleman Island.

The east side was sounded on October 1, 1934 when three dikes and a part of a trail dike had been completed or partially completed at the north end of Nottleman Island. The witness was asked if they were effective in transferring the main water over toward the west side of Nottleman Island and he answered "No, sir." The deepest water on the east side of Nottleman Island on the October 1, 1934 reconnaissance map was 14 feet. A reconnaissance map on October 15, 1934 sounded the east side of Nottleman Island and not the west side. Both channels were sounded on November 16, 1934. The east channel was sounded April 3, 1935 but they couldn't get through the upper end because the dike construction blocked off the progress of the reconnaissance party. It was the purpose of the dike construction to block that water. A reconnaissance of May 1, 1935 also sounded the east channel but sounding stopped at the upper dike, 629.9 because the party could not get through the dike. The first depth sounded immediately below dike 629.9 which was constructed across the north end of Nottleman Island was

12 feet and below that the soundings list 15, 12, 13, 15, 17, 12, and 8 feet.

Mr. Huber was asked if he ever had situations where there was more water going through the dike system than there was around the ends of the dikes and he said that happened in the Otoe area. Mr. Huber testified that the concave bend is the outside of the curve and, as the river flows in the concave bend, the main force of the water is generally toward the concave side of the curve or the outside of the curve. If the river was in a pronounced bend such as that before the stabilization work, it could erode the bank on the concave side.

The witness recognized that, where the river had been in a pronounced bend and all of a sudden cut through the neck of that bend leaving an abandoned channel in the pronounced bend, it would leave an area of two banks, both a right and left bank of the abandoned channel. It could fill in and in some cases they do and in other cases they do not fill. The abandoned channel could get narrower as it filled in.

Mr. Huber also testified that they started their work at hard points or bluffs such as the Nebraska City bridge and the Plattsmouth bridge and worked downstream in a series of curves and reverse curves in designing the channel. It is the design of the curves that determines where they put the river from that point downstream.

In the Schemmel case in Fremont Count, Iowa, in 1964, Mr. Huber testified on cross examination that he had no personal knowledge of which was the most used channel or the usually used channel for navigation prior to coming to Omaha in 1936.

He was asked on cross examination in the present case:

“Q. Is it fair to say you made a thoroughly extensive study of the Otoe Bend-Schemmel Island area in connection with your testimony in this case?

A. Yes, sir.

Q. Does the entrance of the Platte River have any significance in the Schemmel case, the entrance of the Platte River into the Missouri River?

A. It affected the channel downstream for some miles. It could have had some bearing on the channel downstream from the Platte River as far as this location.

Q. Are you stating it did have some bearing in the Schemmel Island area?

A. I am saying that the flow from the Platte River influenced the stream downstream, and I believe as far as the Schemmel area.

Q. Do you recall in the Schemmel case, again in District Court in Fremont County, Mr. Huber, being asked the following questions on redirect examination by Mr. Murray:

‘Q. Mr. Huber, at the outset of Mr. Redd’s cross-examination of you there was considerable discussion about the effect of the Platte River mouth where it empties into the Missouri River. Where is that?

A. The mouth of the Platte is a few miles upstream from Plattsmouth, Nebraska, and a few miles downstream from Bellevue, Nebraska.

Q. How many miles above the area involved in this case?

A. 25, 30 miles, in that range.

Q. Does the Platte River outlet into the Missouri have any significance in this case that you can see?

A. No, sir.'

Do you recall being asked those questions and giving those answers?

A. Yes, sir.'" (Vol. XXIV, pp. 3413-3414).

Mr. Huber stated he had testified for the State of Iowa as concerns formation of lands along the Missouri River in *Iowa vs. Raymond*, *Dartmouth College vs. Rose*, *Iowa vs. Tyson* and the *Schemmel* case in Fremont County.

On redirect examination, Mr. Huber was asked if, when the Missouri River Commission men were making what we call the 1890 survey, they took soundings of the river. His answer was:

"Soundings were taken and they do not appear on the scale of these one-inch-to-one-mile charts, but there are some very large rolls of the original 1890 survey in the Kansas City District office and these are a reduction from the large rolls which are on a large scale, and they did have the soundings on them." (Vol. XXIV, p. 3420).

Although the Missouri River has been notorious for its many changes over the years, certainly testimony concerning the river should not be as changeable or as variable as the river itself. No man's title should be determined by testimony of such a transitory nature as that submitted by this witness.

The reconnaissance maps and soundings referred to by Stewart Smith, General Loper, and Mr. Huber have also been commented upon by the State of Iowa in briefs

in two cases involving lands along the Missouri River. Plaintiff offered the following language from the brief of the State of Iowa before the United States Court of Appeals for the Eighth Circuit in Civil No. 16460, *Tyson, et al., versus State of Iowa*:

“The Tyson-Anderson appellants base much of their claim and argument upon the accuracy of the so-called ‘reconnaissance maps.’ (Government Exhibits 4-A through 4-X.) R. L. Huber, the Corps of Engineers witness, described how the so-called maps were made. He states that these exhibits are merely sketches drawn by a man riding down the river in a boat at eight miles an hour. The inaccuracy of these sketches is demonstrated by comparing Government Exhibit 4-N (reconnaissance map made July 7, 1949) with Government Exhibit 3-N (aerial photo taken July 3, 1949); Exhibit 4-N purports to show that the designed channel between the island and the Nebraska shore had filled up and was not running water, whereas 3-N clearly showed a stream of water throughout the length of the designed channel. If the trial court gave little or no weight to the reconnaissance map in reaching his conclusions, the entire record discloses that he was justified in so doing.” (Vol. XVIII, p. 2663).

This brief was signed by Norman A. Erbe, Attorney General of Iowa, James H. Gritton, Assistant Attorney General of Iowa, and Michael M. Murray, of Logan, Iowa, attorney for the Appellant, State of Iowa. Mr. Murray indicated at the trial that he wrote the brief and made the arguments.

Plaintiff also offered the following statement from a brief of the State of Iowa in the case of *State of Iowa, Plaintiff, versus Frank Raymond, et al.*, in the Supreme Court of Iowa:

“These pictures (referring to aerial photographs) serve a collateral purpose of demonstrating the unreliability of reconnaissance sketches relied upon by appellants to prove that the east channel was closed in 1939 to 1943.” (Vol. XVIII, p. 2666).

Although Iowa has offered some reconnaissance maps in evidence, it is submitted that the testimony and Iowa's previous statements substantiate the position that these maps are not probative of the location of the boundary between Iowa and Nebraska. If they are unreliable when in conflict with the State of Iowa's position, it would seem they would be equally unreliable if used in support of Iowa's position.

The State of Iowa called two witnesses, Dr. Bensend and Dr. McGinnis, in an attempt to contradict Mr. Weakly's testimony concerning the age of the trees on Nottleman Island and in the Schemmel area. Neither of these witnesses proved knowledgeable in the science of dendrochronology and they admitted they could not accurately “bridge” or chart the ages from trees. This automatically disqualifies them in determining the age of trees which may have been pushed over the bank as in the Schemmel area or slabs taken from a stump. Both witnesses spent little time on each piece of wood and much of the preparation was done by students. They counted along a single radius where areas of difficulty could well be found and rings missed. Although a great deal of time was spent on discussing “false rings” their testimony failed to point out the relevance of the discussion to the particular tree samples analyzed. Mr. Weakly touched on the subject of false rings and indicated they

were not too difficult to find if you knew what you were doing.

Iowa's witness Bensend was more concerned with the area of gluing of wood, mechanical properties of wood, and adhesives. Although his students worked with cottonwoods, there is some element of doubt concerning the amount of work by the witness with the subject. When asked about the field of ring counting, the witness testified:

“Q. Are there in the field of ring counting any publications that are recognized in your business as authoritative?

A. Well, there has been a great deal of work done down in southwestern United States in relating climate to ring count.

Q. Is there a text on the subject?

A. I haven't followed this very closely. I suspect there are numerous publications, but I can't name any one because they aren't associated—” (Vol. XVII, p. 2412).

In counting, this witness said “We select a radius that would give us a complete ring count from the pith to the bark.” In a few cases where there was some decay and it was a little difficult to reach the pith, by moving around the tree a ways, they were able to get very close to the pith. On tree No. 230, the witness said he had two other persons make independent counts “using this same radius on the same sample, but a different side of the sample.” (Vol. XVII, p. 2426). Consequently, they were merely following the same path as the witness and not really making any independent study.

On foundational questions by Plaintiff's counsel, Dr. Bensend testified about the primary purpose of his work with cottonwood and environmental factors and agreed that basically his concern was with the production of cottonwood for pulp purposes. They were interested in studying the changes in the properties of wood and the length of fibers. He was interested in tracing a ring from the bottom of the tree up as far as it goes and admitted that you can trace these rings without any relationship to the age of the tree at all. He agreed that what he has been most concerned with in his work at Iowa State was with ring counting and not ring chronology. He said they used ring count only to establish the position of a specimen within the tree. In answer to a question from the Court, Bensend said there were some numbers on some of the specimens which he received and he disagreed with most of them. However, even on tree number 230 in the Schemmel area, Dr. Bensend's determination was that it started its growth in 1903. This was still prior to the 1905 map showing the river had moved back to the west in the Schemmel area. Bensend also testified when asked about the subject of "bridging", that they were usually not directly concerned with this. Only indirectly did they have anything to do with the relationship of growth rate of one tree to another. He had seen a few articles concerning the work done at the tree ring laboratory in, he believed, Flagstaff. He was not sure about the location. He also made it clear that he had not done a great deal of bridging and was not an expert in it. He was unable to bridge any of the samples which he had.

On cross-examination, Dr. Bensend stated he was told of Mr. Weakly's ring count in connection with the slabs other than number 230 in a letter from Mr. Murray somewhat before he received the samples so he had Mr. Weakly's findings and it was also written on the specimens. There was a penciled number on the tags, but the witness said he paid no attention to that. The witness was asked about the two terms "ring count" and "ring chronology" and didn't know what they were referring to. He didn't run into those terms in the type of work he did. He also did not have definite information on how high his slab of tree No. 230 was taken from the ground. On Tree 1220, he had no information as to what the remainder of that slab was before this particular section delivered to him was cut. He didn't know how representative this slab was for the rest of the tree. He also recalled that he didn't find any slabs to which he found equal or more rings than Mr. Weakly. He had a boy prepare the cuts and then the witness didn't spend "on some of them more than an hour, or in some cases a little less and in some cases more. If I had some uncertainties, we might spend a couple of hours trying to trace down—" (Vol. XVII, p. 2469).

The back-up witness for Dr. Bensend was Dr. McGinnis who was also educated in wood technology. He stated:

"... but I have done no research myself as an individual on cottonwood." (Vol. XVII, p. 2478).

He was also asked on direct examination:

"Q. What is the difference between your business and I think the term has been mentioned here this

morning, a wood chronologist? In the first place, have you ever heard of the term 'wood chronologist'?

- A. Yes, although I must confess I don't pretend to be an authority on that subject . . .' (Vol. XVII, p. 2480).

When asked if he was generally acquainted with the method used by people who call themselves wood chronologists or dendrochronologists, his answer was "Vaguely, I am not a student of the field . . ." (Vol. XVIII, p. 2481). He did not know of any work being done here in the mid-west in the field of dendrochronology. He made a ring count on samples which Dr. Benseid had in Ames. When they were given to him he said he did not know the result of Dr. Weakly's work on the samples. Mr. Murray explained to him in the morning what he was involved in and he spent most of the day except for lunch counting them. The witness was asked about the accuracy of bridging cottonwood trees and, when asked by the Court if he had done much of that work, he answered that he had not. He did not know how long the cottonwood had been growing in this country and said the universities have had an opportunity since World War II with a lot of Federal research money to undertake studies on a lot of things they couldn't do before, and cottonwood was one area and tree genetics was a new field that has come along in this concept of how they are going to grow them better to have a better product. The business of getting soft wood for paper has become very important lately. This witness, as Benseid, was apparently more involved with the pulp and paper industry than in actual date chronology.

When asked on cross-examination if it wasn't quite unusual, as difficult as he testified it is to count cottonwood rings, that two different foresters can take 15 slabs and come up with about the same count, the witness answered it would depend. Both McGinnis and Bensend counted the rings on the same smooth surface and on the same radii. Dr. McGinnis went along with the same patterns which Dr. Bensend had. Consequently, it was not an independent investigation. The slabs or samples were marked as they were in the court room when he studied them and somebody now could pick up those same slabs and retrace what he and Bensend did because the path they followed is apparent on the slabs.

Iowa had two witnesses from Iowa State University, Dr. Robert V. Ruhe and Dr. Thomas Fenton, who did a study of the Otoe Bend area. They supposedly identified features on the ground and placed them on a map. However, they had no licensed land surveyors assisting them in identifying these features and placing them in relation to the section corners. Ruhe testified concerning scarps, old chutes, and land forms. He attempted to identify scarps with banks of the Missouri River in times past. The witness testified that the scarps all faced right. The high side is always on the left, the low side always to the right. He claimed that they all faced generally toward Nebraska. These scarps have a slope. They would be like the tread on a stairs, the riser on a stair. If you were walking across these things, you go up stairs a little bit and you go up another step. Ruhe made a map showing some of these scarps (Exhibit D-1221). Ruhe said all of the scarps face westward or southwestward and they represent left bank positions. He testified the river moved to the west gradu-

ally during a fifteen year period but he didn't know the number of years. He also reached conclusions as to the effect of the Corp work starting in 1934, using transparencies constructed from aerial photographs. However, it was pointed out that the 1936 aerial photographs show a hole in a dike which does not appear on his transparency because, he said, the transparency just shows the position of the dike. Two parallel lines on the aerial photograph appear to be curved on the transparencies. The witness testified that you adjust your aerial photograph and then plot it. Apparently what are two parallel lines become two non-parallel lines because of the adjustment. The witness also did not hesitate to show the Court the 1936 "main channel" on the exhibits. There was absolutely no foundation for the witness' expertise in this regard.

Plaintiff contends that an examination of Ruhe's overlays in comparison with the aerial photographs establishes that the overlays do not accurately depict everything which shows on the aerial photographs. There has been some selectivity.

The witness did state that he selected certain structures. He has only used the same structures in all of the overlays. The witness' attention was called to the apparent width of the Otoe Canal in the 1938 aerial photograph and the overlay as compared with the area of land immediately to the east of it and he justified the differences on the basis that the canal was on the edge of the photograph which is the most distorted. Plaintiff would point out that the distortion is not uniform in the overlay although the two features are adjacent to each other in the same portion of the photograph.

Ruhe purportedly, from a summary of his overlays prepared from the aerial photographs, found that there were four little pieces of land that came through the whole history of the east side of the Schemmel area and these would be dated from 1930. Ruhe had an opinion as to how the island formed, although it was only based on aerial photographs with a gap between 1930 and 1936 and the river work of the Corps started in 1934.

Ruhe testified that the scarp which was generally the left bank of the Iowa Chute was the farthest east left bank which he found in this area. He testified concerning a John Gregg map of 1895 which is not of record in the Fremont County Courthouse. This map concerns an area in the southern part of Iowa Section 3 to the north of the Schemmel land which supposedly shows a left bank and a slough between the left bank and the river. He compared the supposed left bank by Gregg and the right bank of the Pierce 1895 survey which is of record in Otoe County and concluded that the Pierce survey was inaccurate because the channel would have become almost obliterated and would not exist at the site of Sidney Landing as it appears on the 1890 map. It would be a matter of a few hundred feet at the most in width. Ruhe also concluded that the left bank of the river created the scarp which runs along the left side of the Iowa Chute between the years 1879 and 1890. He said there was a bank position shown on the 1890 map which corresponds with that scarp.

On cross-examination, Ruhe testified that the scarp roughly parallels the Iowa Chute on its east side. He was then asked:

“Q. —the 1879-90 scarp and the Iowa Chute are in the same position, is that correct?

A. Yes; the bank is right up against the scarp.

Q. And again, you identify the scarp as being what point? As being related to the river as of what date?

A. 1879 to 1890.

Q. If you should be mistaken in that assumption, what would that do to the rest of your thesis which you have espoused here today?

A. I am not mistaken in that assumption.

Q. That isn't my question. If you are mistaken, I take it about everything else you have said today would be also in error, is that correct?

A. Yes.” (Vol. XIX, p. 2804).

The testimony then brought out that, by measuring from the Section corner common to Sections 13, 19, 18 and 24 directly west to the scarp along the Iowa Chute it was only 4,800 feet to the scarp which is within 300 feet of the Iowa Chute. This was his supposed left bank of the Missouri River between 1879 and 1890. However, measuring along that same line on the 1890 map to the bank of the river, the measurement is 6,700 feet. Consequently, the 1890 bank is at least 1,600 feet to the west of his scarp which he identified as the 1879-90 bank. Ruhe testified that the line that is shown on the 1890 map is the chute line. However, the measurements show that this is not the chute line and there is no feature on the 1890 map shown in the location of the Iowa Chute on the Section line. Iowa Sections 13 and 24 appear on Appendix B and Section 18 is immediately to the east of Section 13 and Section 19

is immediately east of Section 24. That section corner common to those four sections can be identified on Appendix B.

Ruhe testified he could only do this type of study with authorization from headquarters in Washington, D. C. and he could do it for a State but he would not do it for a farmer because it would conflict with his Federal duties. He relied only on the maps which had been offered in evidence and those which he was able to dig up such as the 1895 Gregg map, the 1903 maps, and the air photos of the 60's. He placed very little reliance on the 1903 map. He did not know of any surveys of 1882, 1884, 1886, or 1888 of the east bank. Such surveys are in evidence in this case.

Dr. Ruhe had some trees marked on the Schemmel area on his map and was asked if he found in his report that when the Corps of Engineers moved the river they did so without destroying those trees. In his report he admitted he made the statement:

“The sites of the trees survived as the parcels of land identified as 30M on plate 3.”

He was not changing his testimony and it was still his finding and conclusion that the river could have moved across that area where the trees exist on Schemmel Island without destroying that land. He also was referred to where he marked the 1895 tree in Section 14 and, in his report, found that *the river could have moved across that area without destroying a tree located at that place.*

Ruhe testified that there are no scarps from the Iowa Chute towards the Missouri River at the present time which slope toward the left or toward the Iowa shore. He

also testified they mapped every scarp they found in the time they were able to do their work. *If there were any scarps in that entire area which faced toward the east, it would show a right bank position. It might change his conclusions.*

Dr. Ruhe testified that his chute No. 7 was a chute formed by the river at some time in the past. This is a long chute which parallels the levee on the riverward side. He was then asked if he knew when the levee was constructed which was immediately left of chute No. 7 but he didn't know for sure and admitted that borrow could have come from the area shown as chute No. 7 but he didn't know that for a fact. If it did, he would have a distorted picture as to whether or not chute No. 7 was ever a channel of the Missouri River or formed by the Missouri River.

Ruhe testified that Dr. Fenton took the measurements as to elevations. If it should turn out that those elevations are in error by a wide magnitude, it would affect his conclusions but a slight error would not. A slight error out there would be a foot or two. Locally, a foot or two would be very significant because some of these scarps are only 1.3 feet high, so an error there of one or two feet would be bad.

The Gregg survey was approximately a mile north of the current north end of the area known as Schemmel Island. The witness also found no evidence of construction prior to the time that the Corps of Engineers did its work. He found no evidence of river construction by man-made means in the 1920's in that area. He apparently did not have knowledge of the river work on the east bank by

Woods Brothers Construction Company in the early 1920's.

Plaintiff in rebuttal called Mr. Hiley J. Barrett, Jr., of Nebraska City whose occupation is earth moving and construction. He identified the levee just to the east of the Schemmel land and testified he did clearing ahead for the borrow area. The borrow area is known as the area where you borrowed the dirt to build the levee. He started in August 1948 and they were frozen out on December 4, 1948. A crew went ahead and cleared for the base of the levee and then the dirt machines came behind and it was the witness' job to go ahead and clear the area so the dirt rigs could haul out of that area. They would strip the trees or brush or any debris and put in areas in windrows and then put dirt on top, using that as a haul road from the borrow area to the levee. There was no levee there when he commenced work because a crew had gone ahead and cleared for the levee base. He pointed out on the 1960 agricultural aerial photograph (P-256) where they scooped the dirt to construct the levee. This was to the west side of the levee. He also pointed out some of the haul roads which still appeared on the aerial photograph. He marked some arrows pointing out these haul roads and others are visible along the levee in the photograph. He also circled a portion of the borrow area riverward from the levee. It would vary because some places they had to go wider because they couldn't go deep enough.

They were constructing the levee from south to north and they went as far north as Payne Junction. From ground level the height of the levee would vary because of

depressions in the land but it would probably be from 15 to 21 feet high. The levee was completed in 1949. After the 1952 flood, the witness testified that they capped that levee and put approximately two feet of dirt on the levee. This dirt came from the same general area to the west all the way along the levee, starting north of Plum Creek and going down to Hamburg Landing. The borrow area left a low wide ditch. The depth would vary and in some areas it could be from 80 to 150 feet wide and maybe 8 to 10 feet deep. In other spots you couldn't get four feet deep. This borrow area identified by Mr. Barrett can be seen to be the same topographic feature which Ruhe called Chute No. 7 which he first testified was formed by the Missouri River.

The Nebraska State Surveyor also testified in rebuttal for the Plaintiff that he ran a profile in the Schemmel Island area starting at the levee and running eastward to the Schwake Chute. He started his profile approximately at the buildings in the northwest corner of Iowa Section 14, 200 feet east of the levee on the Section line between Sections 10 and 15. They started the measurement at the levee and started their profile or elevations about 200 feet east of there. They took a level shot at each 50-foot interval until they hit a break in the topography and then they took it at 10-foot intervals. The profile was taken 50 feet south of the road to get away from any influence of the road. He had a survey crew with him and they used a transit and rod and checked those instruments for accuracy before they commenced. They checked it both at the State House before they started and again in the field, which was a standard method. They checked

their traverse into a benchmark at the completion of the survey, also. They started from a benchmark and ended at a benchmark.

Mr. Brown identified a profile which he took on June 27, 1969 (Exhibit P-2704) and explained the relationship between this profile and Exhibit D-1221, the map prepared by Ruhe. The first sheet goes as far east as 1,600 feet following along and immediately south of the Section line between Iowa Sections 10 and 15 and 11 and 14. The witness testified in the area shown on that profile it does not show a slope in any particular direction. It is slightly undulating. The witness then identified a second sheet of the same profile (Exhibit P-2705) beginning at the termination of the first sheet, or 1,600 feet east of the levee and continuing on to 3,100 feet. The termination of this profile is in the Schwake Chute. This is in the area of the "C" on Ruhe's traverse. The witness got to the center of that chute which Ruhe's C traverse went across. Mr. Ruhe has a scarp identified as "Red 10" (there is an error in transcription and the Court Reporter identified scarp red ten as "red pen" in several places.) The witness was asked if he found anything in the location of Ruhe's scarp mark identified as "Red 10" on D-1221 and said he did not. That would appear on approximately the western portion of the first sheet of his profile. It is around Station 15 which appears in the lower righthand portion of his profile, Exhibit P-2704, and possibly it is to the west of that station 15.

There is an area on Exhibit P-2705 of the profile where Mr. Brown took elevations at a much closer interval between the numbers 19 and 20. That was where he found

a break in the profile of the ground and he took 10-foot interval shots there to better portray the slope of it, the east and west banks, and the bottom. The highest elevation he found on the west side of that break was 911.7 feet and the lowest elevation was 910.1 feet and on the eastern side of that break the highest elevation was 911.1 feet and that is the highest from there clear through to the Schwake Chute. *This feature comes within Ruhe's definition of a scarp, but it faces east, and by his own admission, this would change his conclusions.* This break was approximately 450 feet east of the Ruhe "Red 10" scarp on Exhibit D-1221 and appears on Exhibit P-2705 between Stations 19 and 20. The highest bank of this drop-off is on the west and the east bank is somewhat lower than the west bank. He took photographs at the location of that drop-off. This scarp ran in a northwesterly-southeasterly direction. It was standing full of water when Mr. Brown was there. Exhibit P-2706 is a photograph the witness took standing on the roadway at that Station 19, looking southeasterly, and portrays the west bank of that feature. The witness also identified Exhibit P-2707, another photograph of the same feature but also showing the transit. Another photograph was introduced taken from that same Station 19 on the road but facing northwest showing the depression (Exhibit P-2708). The witness said that from the road you could see the depression run about a quarter of a mile north and, sometime earlier than this, he walked up this depression clear to the levee that runs on up to the north.

Mr. Brown found nothing where his profile crossed the location of Ruhe's red 10 scarp.

Mr. Brown was then referred to Exhibit P-212 which is a photographic reproduction of a portion of the 1890 map, brought to the scale of one inch to 2,000 feet. This is the same as the scale on Exhibit P-1036, Sheet 59 of the 1946-47 Corps of Enginners tri-color map. He placed the 1890 overlay on the 1946-47 tri-color map so they were in the same location on the ground in the Schemmel Island area. The 1890 thalweg which appears on the tri-color fits in the channel on the 1890 map. Mr. Brown measured from the Iowa Chute to the left bank of the 1890 Corps of Engineers map on the road into Schemmel Island and testified it was 600 feet. A little bit to the north, at right angles to the bank where the road meets the Iowa Chute about one quarter mile south of the Givens place the bank of the Iowa Chute is 1,100 feet northeast of the left bank as shown on the 1890 map. To the south, measured along the section line between Iowa Sections 14 and 23 and 13 and 14, the Iowa Chute is 1,600 feet east of the east bank of the 1890 Missouri River. Consequently, the bank feature on the 1890 map which Ruhe stated was his easternmost scarp was west of the Iowa Chute in 1890 and the Iowa Chute was created by the river *after* 1890.

Mr. Brown then examined Exhibit D-1232 which was an overlay prepared by Dr. Ruhe of the Gregg map of 1895 which has the Pierce Survey 1895 bank line shown on it. He was not able to identify anything as the Iowa bank and the furthest riverward indication shown on the Gregg Survey were the lines of the slough. He measured between the furthest right bank of the slough as shown on the Gregg map and the 1895 Pierce Survey right bank

and found it measured 22 chains or 1,450 feet. He then pointed out several areas on the 1890 Missouri River Commission survey which show the Missouri River as narrower than 1,000 feet. There are several such areas. At Mile Marker 615, the entire channel is approximately 500 feet wide. At Mile Marker 610, again it is approximately 500 feet wide and this is immediately above Nebraska City. At Nebraska City it is 700 feet wide approximately. All these places measured just show a single channel. In making these measurements, he intentionally avoided the split channels. At Otoe City or Minersville the river is approximately 600 feet wide on the 1890 map. Immediately upstream from Mile 590 it is about 700 feet wide. Immediately below Peru or to the right of Peru, it is approximately 400 feet wide. The witness only picked the narrowest places. There are many of them that are under 1,000 feet. Consequently, there are many places where the river was narrower than it would be if confined between the 1895 right bank of the Pierce survey and the bank of the slough on the Iowa side as shown by the Gregg map. The witness, Ruhe, had compared the positions of the 1895 Pierce right bank and the Gregg map and commented that " . . . the channel would become very, very narrow." Ruhe was quick to discount the Pierce map and tried to show that the channel would have become almost obliterated and wouldn't exist at the site Sidney Landing. It would be a matter of a few hundred feet at the most. However, in addition to the measurements by Mr. Brown on the 1890 map, plaintiff would refer to the remarks by S. H. Younge appearing in Exhibit P-1619 referred to on Pages 29 and 30 of this Resume', in which Mr. Younge mentioned that the width

of the river below Kansas City between its high water banks varied from 900 to 7,000 feet with the low water widths varying from 400 to 2,000 feet. This is considerably downstream below the discharge of waters of additional tributaries and streams into the Missouri River.

Iowa also called Dr. Fenton who assisted Ruhe in his study of the Otoe Bend area. Dr. Fenton took soil samples and testified the soils in materials on the island are similar in kind to those that occur west of the Iowa Chute and over to the river. He discussed the soil pattern of distribution but testified that this did not mean anything as to how the island formed. There isn't necessarily any correlation between where land first appeared and present-day soil patterns. On cross-examination, the witness testified that he found some soils on the present Nebraska or western side of the river similar in kind to those on Schemmel Island. He determined that all of the land which is presently in Iowa but which is now west of the Iowa Chute is former bed of the Missouri River. The witness took the measurements from which Exhibit D-1221 was prepared and he took the elevations. However, he did not draft the map.

The witness testified that scarp 3 which was identified by Dr. Ruhe as being within 300 feet of the Iowa Chute intersected the section line common to Iowa Sections 13 and 24. The Iowa Chute also intersects that section line common to Section 13 and 24. However, he testified that the east bank of the Missouri River on the 1890 Corps of Engineers map intersects the section line common to Sections 14 and 23. This comparison shows that

scarp 3 is in the section to the east of the section in which the 1890 bank line was located and is not the same feature.

During his testimony, the witness referred to Exhibit D-1221 which is the Ruhe Map showing the scarps and traverses. His testimony brought out that there was a 3,200 foot error in the length of traverse N to M as shown on Exhibit D-1221 but he denied any responsibility for the drafting of the map. (Ex. D-1221). He used the same methods in surveying the lines and elevations on the traverses on the Iowa side of the river as he did in surveying M to N.

Iowa also called Dr. Lucien M. Brush apparently in an attempt to show that the Missouri River below the mouth of the Platte River is not a typical meandering stream. He had been contacted within two months prior to testifying, to study the Missouri River for Defendant. As a part of his study he read the Ruhe-Fenton preliminary report and relied upon it. The testimony of both Ruhe and Fenton indicates their findings were based upon assumptions which are not true in fact. The witness had been taken to the area by Ruhe and Fenton and they showed him what was going on. The witness then testified that Leopold and Wolman defined a meandering stream as one which should have a sinuosity ratio of 1.5 or more. He was referred to the Ruhe report which stated the sinuosity ratio for 1895 was 1.73 and for 1903 was 1.75. This was in excess of that minimum required for a meander. The witness then was read the following statement from a report to the Committee on Rivers and Harbors, February 5, 1934 which he agreed with:

“Cutoffs in the Missouri River are most frequent in the broad sections of the alluvial valley while in the narrow sections the changes consist of the bodily downstream movements of series of bends with less frequent cutoffs. Cutoffs therefore have been very common in the middle river from Sioux City, Iowa, to Kansas City, Missouri. Numerous horseshoe lakes in this part of the river valley are the remains of old river beds.” (Vol. XX, p. 2947).

The witness then was read the statement by Mr. Huber in the case of *State of Iowa v. Henry E. Schemmel, et al.* in Fremont County in which Mr. Huber testified the Platte River outlet into the Missouri had no significance in that case. He disagreed with that statement. The witness agreed one of the characteristics of a meandering stream is that it has the ability to have cutoffs. He was then shown Defendant's Exhibit 261, the 1890 Missouri River Commission map and admitted that between 1879 and 1890 the channel made quite a shift from Eastport Bend over towards Nebraska City leaving Nebraska City Island. That probably was an avulsion. McKissock Island to the south was also pointed out to the witness. The witness then admitted that Nebraska City Island looked like a cutoff but he really couldn't say about McKissock Island. He did not study that. He was then handed Sheet 58 of the tri-color maps and found the McKissock Island area and saw a line running around it which says “Nebraska”. The witness then agreed there was an easterly developed bend which was cut off at Nebraska City Island, an easterly developed bend which cut off leaving McKissock Island and, in the vicinity of Otoe Bend or Frazer Island, there was an easterly developed bend.

**Testimony By Iowa Conservation Commission
Officials or Employees**

Lloyd Bailey, Superintendent of Land Acquisition for the State Conservation Commission of Iowa, testified on behalf of Defendant. His duties were to supervise land acquisition projects for the State Conservation Commission, negotiate and acquire the land, and act as closing officer. Mr. Bailey directed Mr. Hart to make certain surveys and, when the Court asked where Mr. Bailey got the information to tell Mr. Hart what to survey, the witness answered the preliminary investigation was made by local Conservation Commission employees and the Attorney General's Office. He stated there were islands formed in the beds of the river and nobody paid any attention to them until the channel became stabilized. Then riparian owners started moving out onto these islands. Notice came to his department that people were occupying these lands in some instances and the decision was made to find out what and where the public did own lands. They first started to consider this proposition back in the late 50's when reports were made and the department first showed an interest in it. Then they received a legislative appropriation earmarked for surveys along the river to determine whether the State had any rights over there. He wasn't sure of the year of that appropriation. For 10 or 12 years or more following the Compact the State wasn't interested and no official action had been taken.

The witness was asked if a survey (Ex. D-1205) by Mr. Hart had ever been filed as a public document in any office that he knew of and the witness couldn't say. De-

fendant offered several surveys by Mr. Hart in which he purported to plot the state line and used uniform chords of 500 feet in length. Plaintiff contends that, where the bank line is a series of straight lines or 500 foot chords set at angles to establish a curve, any series of chords parallel to the 500 foot chords would necessarily have to be of different lengths. Consequently, many of Mr. Hart's plottings of the state line would be in error.

The witness, Bailey, testified that their Code says that all surveys should be filed with the Secretary of the Conservation Commission.

In one area where Mr. Hart surveyed the same area which Mr. Brown had surveyed, Mr. Hart did not use the uniform 500 foot chords (Ex. D-1209). The witness testified that the division line between state-owned land and privately owned land in the Tyson Bend area was negotiated by Mr. Jauron and Mr. Murray in regard to the line between the state and private individual owners. There was also some consideration paid Raymond G. Peterson and Ed McFerrin in the way of money for high ground constituting more land than just enough to put a fence on.

The witness testified that the bed of the river belongs to the State of Iowa no matter where the river is if it is within Iowa. Plaintiff contends that this position of the Iowa officials disregards the Compact.

Many of Mr. Hart's surveys for the Conservation Commission were not certified or completed and several were made following the commencement of this litigation. On cross-examination, Mr. Bailey testified he has worked

for the Iowa Conservation Commission since April 15, 1936 and became Chief of the Land Acquisition Section in 1958. When he took over his duties as head of that section he had been familiar with their record keeping prior to that time. The Secretary of State is the State Land Officer or Commissioner in Iowa and the deeds and abstracts of title are filed with the State Land Office. The list of lands up and down the Missouri River claimed by the State of Iowa were not on file in the Office of the Secretary of State. The State Conservation Commission did not file plats there. Until just recent years, they weren't required to file plats even in the county. They were to be filed with the Secretary of the State Conservation Commission.

He thought generally all the activity up and down the Missouri River started about 1958. Only California Bend was posted as State-claimed land prior to that time. With regard to the land along the Missouri River and the activity commencing in 1958, the documentation and the quieting of title in the State of Iowa was handled by the Attorney General's Office. The study of lands up and down the Missouri River to be selected for acquisition by the State of Iowa was made by L. F. Faber and the witness believed Jerry Jauron. Faber was superintendent of Federal Aid for the Conservation Commission and became Assistant Director prior to his resignation. After an area had been selected, there were investigations to determine whether the state had a claim or not and the result of this investigation was reported back to the Conservation Commission. The decision to attempt to acquire title was made in the Conservation Commission. The witness did not

know whether people who claimed or occupied or lived on any of these lands were given any notice by the Conservation Commission of the intention of the State of Iowa to attempt to acquire that land and if it had been done, he thought he would have known about it. These people weren't given an opportunity to be heard in any official hearing.

The contracts between the Commission and Mr. Larry Hart directed him to survey various areas. The witness testified that the areas shown in green on the series of maps and overlays offered by Defendant portray all of the areas claimed by the State of Iowa along the banks of the Missouri River. Mr. Bailey testified that the underlying maps on this series, which are Alluvial Plain maps from the Corps, were obtained by Mr. Hart. The negatives from which they were made were delivered to the Commission by Mr. Hart and the witness believed they were dated May, 1942.

There was an agreement between Petersons and the State of Iowa in California Bend (Ex. D-1218) and it was the Attorney General's Office which negotiated that agreement. Mr. Bailey testified he knew of no abandoned channel of the Missouri River to the east of the Peterson agreement line. The witness also testified that the State of Iowa claims the bed of the river in Iowa to the ordinary high water line and, if the river would eat into the Iowa bank over night, the State of Iowa would claim it as a portion of the bed of the river. They would claim the old bed if it were on the west side of the present channel but still east of the Compact line.

He was referred to Ex. P-2667, which is Sheet 88 of the tri-color map and shows the California Bend area and testified that he saw east of the area marked “# 22” an area which looks like old river bed. Although he testified his department now claims former abandoned river channels more than just a year or two old if the evidence is still available, they weren’t making any claim to it. He stated:

“They possibly would have a claim to it, sir, but they aren’t claiming it.” (Vol. XIX, p. 2712).

The 1890 thalweg of the river was considerably east of area # 22 in California Bend. The witness testified that Horseshoe Lake somewhat north and east of California Cutoff looked like an old oxbow lake but the State of Iowa was not claiming it. South and somewhat east of Horseshoe Lake is a swampy area which looks like a configuration of an old river bed and the State of Iowa doesn’t claim any land in that area. This is the area referred to in the 1890 Missouri River Commission Report as the cutoff of 1881 (Pp. 28-29 of this Resume’).

As to the areas on the map which might appear to be abandoned river channels or oxbow lakes, final decision as to whether or not the State Conservation Commission will claim those areas would be with the Attorney General’s Office.

Mr. Bailey testified that the determination of the Iowa high water mark or the ordinary high water mark is based on the location of the ordinary high water mark just prior to the diversion of the waters into the new channels by the Corps of Engineers. For their present

purposes, they make no investigation going back of that. Mr. Bailey was asked what records were kept of State-claimed lands just before he went into office as Chief of the Land Acquisition Section and answered:

“They were very poor along the Missouri River. There was very little record of anything there in my office.” (Vol. XIX, p. 2715).

The records they had were kept in files in separate folders for each area and there were very few on the Missouri River. He estimated approximately five. There was no other office where an outsider could go to determine what lands were claimed by the State that the witness was aware of. There would be some records or should be some records in the State Land Office, if there had been any controversies or claims made. The witness said there was a folder for an area at Sioux City and he believed they had some information on California Bend. Although he had said there were approximately five, he couldn't name any more than those two areas. It was sometime after he took office that the big investigation started to turn up lands that could be included in the 1961 Missouri Planning Report.

The witness was then asked about the Decatur Bridge and admitted that the Missouri River escaped from the designed channel sometime in the 40's which allowed the bridge to be built over dry land. The Conservation Commission did not claim any of that Iowa half of the channel that was under the Decatur Bridge when the bridge was built. Now that the river has been placed back in the designed channel under the Decatur Bridge, the State of Iowa Conservation Commission claims land there. How-

ever, Mr. Bailey testified that no claim is being made to the bridge itself. He knew that there were pipelines in that vicinity but he didn't know whether any used the bridge. The State of Iowa claims no tribute for the privilege of crossing the Iowa land in that vicinity.

In the litigation between the State of Iowa and the private owners up and down the river, Iowa's share of the cost comes from State funds.

Mr. Jerry Jauron testified on behalf of the State of Iowa that he became a conservation officer in July of 1936. He was given a special duty by the Conservation Commission as Missouri River coordinator in 1958. He has been on this special duty since 1958. In 1958 he was assigned the task of making a survey and investigation of the entire stretch of the Missouri River which constitutes the western boundary of Iowa for the purpose of determining existence or non-existence of "state-owned lands." He first studied the river by airplane and studied the alluvial plain maps and the tri-colors. He took pictures of the Missouri River of the areas he thought would need some investigation in about 1959, 1960, and 1961. They were in the process of making the Missouri River Preliminary Planning Report dated January 1961 prior to his taking some of the pictures of the river. The witness would find areas, pick them out, research them primarily at the Corps of Engineers from their maps, pictures and photos. Then he would give this information to Mr. Faber in company with Mr. Gritton, Assistant Attorney General under Attorney General Erbe. Faber was Assistant Director of the Conservation Commission and

was the man Jauron was directly assigned to. Then Gritton, Faber and Jauron would have a small conference to go over what he found. The points that Mr. Gritton decided should be investigated would be investigated from the air and the ground. That effort culminated in the published Planning Report. Then there have been some other areas added to this list since 1961.

The witness testified that, in the Tyson Bend case, the State of Iowa was not made a party to the suit by the Federal Government which was condemning a right-of-way for a canal, and the witness personally visited the Corps of Engineer real estate section and requested that Iowa be made a party to the condemnation proceedings. Iowa was made a party and the witness did the investigation enabling the State of Iowa to present its evidence. He also made the investigation in the Deer Island case of *State vs. Raymond* and in the Brower's Bend area which was the *Dartmouth College* case. He did the part of the work at Otoe Bend in order to enable the State of Iowa to start presenting its case in the case of *Iowa vs. Schemmel*. He also did the investigation of the Nottleman Island case.

Mr. Jauron testified that since this case of *Nebraska vs. Iowa* was commenced, a point was reached where the State of Iowa determined and wanted to make a listing of the areas up and down the river which it claims to own. He did some of the investigative work on the compilation of that list.

Between Omadi and Brower's Bend the river escaped from its design after 1943 and eroded away 60 or 70 acres

of Iowa land and then the Corps redesigned the channel and pushed the river back and Iowa claimed the abandoned river channel.

In Winnebago Bend (Flowers Island) the witness pointed out the river on a picture taken 6-9-61 and testified the Corps was doing new channel work to put it back in its 1938 or 1943 design. This was shown by two parallel curving lines on his photograph (Ex. D-1241). Since that time, the Corps put the river back between those two curving banks which were being built when the picture was taken. He then describes some land that the State of Iowa purchased from a Grosvenor which the State claims by purchase and the witness then testified:

“The State of Iowa claims the water area as an abandoned river channel left abandoned when the Corps of Engineers placed the river in its original design, which was placed there before the 1943 Compact. They put it back. We claim this as accretion to the bed of the river.” (Vol. XXIV, p. 3463).

This is the Flowers Island area where the Missouri River prior to the Compact was entirely in Nebraska and when it escaped following 1943 it did not wash away the original Nebraska land ceded to Iowa. Had it not been for the Compact, the entire river bed would have remained in Nebraska and Iowa would have no claim to any of this area as abandoned river channel.

The witness testified to several areas Iowa claimed, most of them resulting from work done on the river by the Corps of Engineers. The witness also indicated there was an error in the Planning Report identifying the land Iowa claims in Monona Bend.

Mr. Jauron had no picture of Iowa's Area No. 8, Upper Monona Bend because it came into existence lately. He testified that the Corps just put the river out to its redesigned channel in 1966 or 1967 so that area has just come into existence as "state-owned land" as they pushed the river out. It is abandoned river channel.

The witness also testified that the state line as shown on the left hand picture on page 25 of the Missouri River Planning Report is incorrect.

In Upper Decatur Bend, the river escaped from its 1943 design and stayed there until the Corps put it back under the famous dry land bridge with a man-made canal in about 1955 or '56. The witness testified this left an abandoned river channel which was 100% in Iowa. The state claims the area, between the present channel and the channel to which it escaped, as abandoned channel and part of it is an island which the witness stated was accreted to the bottom of the river as the river moved east within the State of Iowa. The Corps put the river back under the bridge without destroying that island. This is another situation where, if the boundary had been movable as prior to the Compact, the Nebraska riparian owner would have become entitled to that island or bed accretion. Iowa is claiming this land in an action presently pending in Monona County captioned *State of Iowa vs. Gingles, et al.* This area appears on page 29 of Planning Report.

In some cases, Iowa claimed the one-half of the 1943 river bed when the Corps constructed a canal for the river some place else. On cross-examination it came out

that some of the information which the witness was testifying to concerning the dates and times that the river was out of its designed channel came from the Corps of Engineers from notes which the witness had made four days before testifying. He hadn't said he obtained the information from Corps records, however, prior to that point. In Bullard Bend, the witness testified the Corps made a new canal making a cutoff there in 1961 and the Corps later diverted the river into that canal. The loop of the former river became slack water and the Corps of Engineers put an emergency levee on the upper end so that it wouldn't silt and the State claims the abandoned channel.

In Soldier Bend, the state claimed a part of an abandoned 350 foot channel but not all of it because some was traded off for other land and considerations.

Mr. Jauron's investigation in the California Bend area disclosed that the Corps had built California cutoff or a canal back in the 1930's. The witness testified that in 1949 the river broke out of the upper end. This started erosion and it continued to erode from 1949 until it was put back into the same channel in 1957. In 1956 and 1957 the Corps dug another canal in exactly the same place as the first one, placing the river back in the 1943 designed channel. The area which the river had occupied during its escape from the channel became slack water covered with bars and is the area claimed by the State of Iowa as abandoned river bed. It is about 500 acres. This has been referred to elsewhere in this Resume' and was land which was ceded by Nebraska to Iowa by the Compact.

At Rand Bar the witness testified Iowa acquired land by a trade. This was old river bed and when asked why Iowa didn't just take it the witness answered that it was accretion to the riparian land owner. There was no water area between her ground and the river bed. This is another situation where there was an obvious judgment made and, as a result, the land owner received some consideration for the property.

The witness did not have a photograph of St. Mary's Bend because it was too far from the river. He didn't get over that far when taking pictures.

At Nettleman Island, his investigation and research was mainly in the Corps offices and S. C. S. and A. S. C. It was mainly researching maps and pictures. The only thing he recalled beyond that was one photo which he found in Kansas City. When asked if he examined county records his answer was "Very little. None at all." (Vol. XXIV, pp. 3549-3550).

In response to a question from the Court, the witness indicated he was not personally on this part of the river before 1947. Then in a response to a question from Mr. Murray, he admitted that he wasn't on it much after 1947 until some later time either.

On cross-examination, the witness indicated that he could not look at a map and say this is where the main channel was. During his time on the river patrolling he quite often had difficulty navigating the Missouri River in the old days and had difficulty in keeping in water that was sufficiently deep to float a boat.

The witness testified that the project of finding the so-called state lands started out because of the Corps of Engineers redesigning the Missouri River from pretty near Council Bluffs to Sioux City. Mr. Stiles asked him in about February, 1956 and the witness supplied Stiles with nearly as much information as he could on what the Corps of Engineers intended to do on their realignment and changing places from the Boundary Compact. The first that he got out of his own territory was when Mr. Stiles asked him in about 1956. Then he went down south on orders of the new director, Mr. Powers, in late 1958 or early 1959. Jauron was the field man. He was the one who did the research and who went to the scene with the Attorney Generals. He was not the one that went to the courthouses or anything like that. After he had picked out certain areas and taken that information back to Des Moines he met with Mr. Faber and someone from the Attorney General's office. At that time he already had a rough list of the areas selected. So any area that he might have rejected never came to the attention of the others. They rejected 3 or 4 areas out of the original 25. The witness also testified that if he would have gone to Des Moines and said "we don't want this area" for some reason or other that it would not have gotten any consideration. When asked if some areas were not included on his list such as Goose Island the witness testified:

"At the time that this was started—You understand we changed Attorney Generals three or four times so I am going to have to change my story three or four times. At the time it was started, the Attorney General at that time in charge said, 'No lands on the other side of the Boundary Compact.' " (Vol. XXIV, p. 3571).

The witness testified that this policy was changed when Mr. Seism started investigating the Krimlofski case in connection with the litigation presently before this Court. This could have been in 1965.

The witness was looking at all of the Corps records but he wasn't looking up all the A. S. C. and S. C. S. things. Some of the local officers in the territory assigned and some out of Des Moines were doing that. He basically started with the 1930 aerials. Then he would look at the other Corps maps. When asked of his idea of an abandoned channel or an abandoned river bed, the witness said it did make a difference if he found an abandoned river bed whether that river bed was wet or dry. He didn't believe that he picked out any "dry river beds the year around." The State of Iowa does not claim all river beds in the Missouri Valley. He could not tell why some of them are ignored and some of them are claimed.

This witness testified in the Deer Island, Browers Bend, and *Tyson* cases and attended the trial of the *Schemmel* case but did not testify. The State of Iowa only called Mr. Huber and Mr. Windenberg in the *Schemmel* case before resting.

The main experience of the witness on the Missouri River was primarily opposite Harrison County until December 1962 but in 1958 he started the big investigation of lands. Before that, he really wasn't familiar with the river below Council Bluffs.

With regard to Rand Bar, which Iowa traded land for, the witness testified that if it had been under water at

the time he first saw it, he would have claimed it for the State of Iowa.

The witness didn't know of a lawsuit between Fannie Rand and the State of Iowa and plaintiff offered Exhibit P-2700 being a copy of a Petition in Equity in the District Court of Iowa in and for Harrison County captioned *Fannie Rand and others versus the State of Iowa and unknown heirs, devisees, and so forth*. In that same action there was an Appearance (Ex. P-2701) and a Disclaimer of Interest on behalf of the State of Iowa signed by Evan Hultman, Attorney General, and William J. Yost, Assistant Attorney General filed January 30, 1964 (Exhibit P-2702). Mr. Jauron had not seen those documents and was not aware of the lawsuit.

The witness recalled that he had testified on direct examination that the earliest date Nottleman Island could have formed was 1918. This was based on his experience on the river and his study of the maps and photographs and that sort of thing. On a previous occasion as a witness at Glenwood, Iowa he had testified that Nottleman Island formed sometime in the early 30's. He said his testimony which he gave in Glenwood was based upon his knowledge at that time. This was in 1962 or 1963. When asked if his testimony in Glenwood was based on his observation of the age of the vegetation on Nottleman Island he said it could have been but he couldn't answer. He was then asked:

“Q. Would you like to hear what you said at that time to refresh your recollection?

‘Q. Well, do you—have you been able to determine to your satisfaction from the in-

vestigation that you have made of these maps, and otherwise, as to the date of the origin of this particular island?

A. I tried to assume the time of the origin of the island by the growth of the trees on the island.'

Were you asked that question and did you give that answer?

A. If that is what the court reporter got, then that's—

Q. Well, it is a fact that that's what you testified, isn't it?

A. Yes.

Q. Then later on when your deposition was taken, you admitted that you had made no estimation of the vegetation on Nottleman's Island?

A. I said that I had discovered another aerial picture, I believe.

Q. Well, let me ask you if your deposition was taken in the office of the Iowa State Conservation Commission, commencing at 10:00 a. m., Monday, July 18, 1966?

A. Yes, sir.

Q. And at that time were you asked these questions and did you give these answers? This is referring to Nottleman Island.

'Q. During these observations were you able to determine anything about the age of the trees and the vegetation which was on the island?

A. I have made no attempt to age the trees. I have measured some. I have pictures of the measurements of some, but I have

made no attempt myself to—Now, we're talking about Nottleman Island?

Q. Yes.

A. I have made no attempt whatever to age any trees.

Q. Did you develop an opinion from your observation of the vegetation as to when the island first came into existence?

A. From my observation, I could ascertain the oldest part of the island, but I made no attempt by observation to estimate up to this time when it came into existence, by observation.'

Were you asked those questions and did you give those answers?

A. I suppose I did.

Q. Well, the fact is you did?

A. Yes." (Vol. XXV, pp. 3597-3599).

The witness was then asked if he investigated abandoned river channels other than the ones he had previously mentioned and said he investigated Badger Lake west of Whiting, Iowa, which was an old oxbow, but he could find nothing to tie it down. He researched Horseshoe Lake west of Modale which he thought was an old river oxbow but he could find no exhibits in his investigation which said it was and it was made so long ago that he could find no witnesses. He had every reason to believe that at one time the river was there as it was in Crystal Lake up by South Sioux City and like it was in Lake Quinnebaugh. The witness used the tri-color maps but he didn't place much consideration in them. He used aerial photos. The

tri-colors show the 1890 thalweg but he used them only very little. He admitted that they show the old oxbows pretty good. He was referred to Brown's Lake and stated it was there at the time of the 1890 survey. He investigated it "very minutely." When asked if that was as far back as he went, he said, "There is no place else to go except the 1879. There's no witnesses alive that can remember that." (Vol. XXV, p. 3602). He did not look at the original government surveys on that particular lake. When asked about the Winnebago Bend area and if there was an apparent bank line "way east" of the Area No. 5-A on Exhibit P-2654 which is Winnebago Bend, the witness answered, yes. He was then asked if the 1890 thalweg was way east of that and stated that he was not going to contradict the Court in what they said in the Flower's Island case. He has testified that same way before.

West of Brown's Lake there was a slough area which was a continuation of the oxbow. This occurred before 1890. He was asked about the Clyde Kirk area and stated that Sybil Jauron was involved in some of that litigation. She is his aunt by marriage. This is the case of *Wilcox v. Pinney* referred to previously.

The witness was referred to Exhibit P-2662, a tri-color which shows several oxbows and said he could obtain very little material on them. The abandoned channel west of Badger Lake was before 1890. He didn't go any further than that.

He did not investigate for the State of Iowa in the case of *Kirk v. Wilcox*. He believed the attorneys researched the law suit.

Exhibit P-2663 shows Blue Lake and northwest of Blue Lake an area that appears to be abandoned river channel. This was like some of the other oxbows. Referring to P-2663, northwest of Blue Lake there is a westward curving bend marked Blackbird Bend. East of that area appears an area with considerable green bounded on the east by a slough area, and through that appear to be some old channels; and the 1890 thalweg runs right through that large, greenish area. That is Kirk Bar which the witness always called Peterson-Lakin. The witness testified there were no records whatsoever that that area was ever an island in the Missouri River. He was then asked if he heard testimony that an old channel of the Missouri River had to be crossed to get to Kirk Bar in the early days and said "I believe that I could have by a witness." (Vol. XXV, p. 3609). Mr. Jauron admitted that the 1890 thalweg runs quite deeply into that Peterson-Lakin land. There is an old slough east of the thalweg. When asked if there wasn't a bank ten or twelve feet high over east of that 1890 thalweg he answered that there was not. Photographs of this bank taken by Mr. Willis Brown showing his son holding a 9 foot pole are in evidence. These show the height of the bank to be considerably in excess of the 9 foot ple.

Exhibit P-2664, Sheet No. 71 of the tri-color maps shows Louisville Bend and Guard Lake which is an old oxbow. The witness said it was way east of the Boundary Compact, and he didn't believe he paid any attention to it at all. He didn't investigate it. It was an apparent river bed, though. He made an investigation only to the point that it was east, way east of the 1890

line. He didn't find much on what is designated Crow Island on the map. It appeared to him as accretion land. He would say there was a bank feature from the east side of Crow Island which goes up into Guard Lake. Part of Crow Island was east of the 1890 thalweg. The witness then admitted that the thalweg runs right through Crow Island. He also found that the 1890 thalweg ran right through Nottleman Island. After considerable cross-examination, the witness stated that Crow Island was on his list forwarded for consideration. He also put Lake Quinnebaugh on the list but at that time they had an attorney that wasn't too sure whether he wanted to come across the river. Lake Quinnebaugh is on the Nebraska side but Crow Island is on the Iowa side.

Sheet No. 68 of the tri-color (Ex. P-2667) shows a lot of sloughs and one lake. The witness said that in his mind there was absolutely no doubt that they are old river beds, but to find any exhibits which say they are or any witnesses who say they are do not exist.

The witness was asked how much of California Bend the State claims and identified the area marked # 22. He didn't think any investigation could enlighten a person as to how the river got from the location of the 1890 thalweg at its easternmost point to the river at its present location. The basis of Iowa's claim to Area # 22 is abandoned river bed. The witness then identified a boundary agreed upon with Peterson in that area and testified there is a law suit pending of *State of Iowa vs. Simmons*.

There was a trade with Peterson for some high bank

for the privilege of putting Iowa's fence on the high bank. Mr. Jauron was shown Myrland Exhibit No. 1 which is the Kirk Bar Map and could not answer whether on the road into the area marked "Cabin" there was a high bank. He couldn't answer whether there was water on both sides of that road. He testified he had not been down over that road over two or three times to his knowledge in his life. He also did not make any investigation to find out whether any of the subject properties were or were not on the Iowa tax rolls. The team of Mr. Faber and the Attorney General's representative and the witness met at least once a week during a short period while they were working on the project and witness didn't know of any discussions about whether or not the land was on the tax rolls. Concerning these meetings, the witness was asked by the Court:

"The Court: Let me ask you this, Mr. Jauron. Those meetings during the time you were giving this matter consideration, did the question—did the fact come up or the supposition come up that there might be individuals who were occupying these lands and, nevertheless, Iowa claimed it under their constitutional right, and so on?

The Witness: Your Honor, I don't—as far as I know, no attempt was ever made to find out—This is only as far as I know.

The Court: I'm talking about the discussions.

The Witness: Right.—where the individual lived or where they didn't live or who they were or who they might not have been.

The Court: Well, was it discussed that some of these lands might be occupied by trespassers?

The Witness: That was the assumption on most of them, that they were encroaching, yes.

The Court: If anybody was on there, they had to be trespassers?

The Witness: Yes, sir.

The Court: That was discussed?

The Witness: Yes, sir, not so much with me.

The Court: That would come up at the meetings?

The Witness: Yes, sir.” (Vol. XXV, pp. 3628-3629).

Mr. Jauron was then asked about Sheet No. 63 of the tri-color, which is St. Mary’s Cutoff on Exhibit P-2679 and testified the State of Iowa claimed some land in that area. He did not investigate that area between 1958 and 1961 because,

“The simple reason is that there was no water in the area. Folsom Lake had been there since my time clear over against the tract . . . ” (Vol. XXV, p. 3629).

This was in spite of the fact that the 1890 thalweg is shown east of the river. The witness then testified that he would say that the State of Iowa always claimed this area but he did not investigate it in ’58 and ’61 and they have never posted any signs in that area. In September of 1965, after the commencement of this law suit, he discovered that a Mr. Sieck had attempted to purchase some of that area # 25 on Exhibit P-2679 from the Conservation Commission in 1953 and he found that the case of *Sarpy County vs. Leinemann* had been discovered by Mr. Seism when he was with the Attorney General’s Office and was researching all the court cases on the Ne-

braska side of the river. Mr Scism was with the Attorney General's office from about January 1, 1965 to somewhere in January, 1967.

Concerning the Upper Decatur Bend area of the dry land bridge, the witness testified that Iowa is claiming to the center of the present channel of the river as it flows under the bridge but Iowa does not claim any part of the bridge. There is a pipeline crossing that bridge but the witness could not answer whether Iowa exacts any tribute from the pipeline company for crossing Iowa land.

The abandoned bend in the Soldier Bend area (Ex. D-1252) to the northwest is not presently claimed by the State of Iowa. It was traded to Mr. Peterson.

Mr. Jauron then testified that, in his investigation of these areas up and down the river, he made no attempt whatever to find out whether anybody was claiming the land involved. His only attempt to find out whether land was under cultivation was from what he could see from the air. He did not attempt to find out who had it under cultivation.

In the Auldon Bar area he testified he was aware of the canal which separated Goose Island from land on Auldon Bar leaving Auldon Bar on the east side of the river and Goose Island on the west side. He then did not pursue the question of where the main channel of the river had been with regard to Goose Island and Auldon Bar before the Corps did its work. He ignored everything west of the 1943 Compact line because his primary orders in '58 were nothing to the west of the 1943 boundary line.

In the Otoe Bend or Schemmel Island area he testified he noticed by some of the exhibits he looked at that a canal was dug at the south end of Schemmel Island. He believed there was a '38 aerial that showed the Corps digging the canal. Once again, they didn't claim any of that land south of the Otoe Canal which wound up on the Nebraska side of the river. They never did claim it and the lawyer who thought they should is no longer with them. The witness found out about the Otoe Bend Canal, he supposed, pretty early in his investigation. He first noticed Schemmel Island the first trip he made which was in 1959. At that time some of the land was cleared and some was under cultivation.

The witness was then referred to Exhibit P-2683, being Sheet 59 of the '46-'47 tri-color which shows an island on the Iowa side of the river in the vicinity of Frazer's Bend. He investigated that island but Iowa does not claim it. This is one of the islands which the lawyer threw out or abandoned. He had no idea why the lawyer did that. Mr. Jauron was referred to this area on an aerial photograph (Pl. Id. No. 2201, Ex. P-2182) and marked the area in red. This was a 1964 aerial. At the time he investigated the area in 1958 and following years, there was no water on the east side of that island. The witness didn't examine this area in the aerial photographs for 1938. When the attorney threw the area out "that was it." At the trial, he located this area on the 1938 aerial of Frazier's Island (Ex. P-2703) and marked it in red. The witness was shown a 1930 aerial photograph (Ex. P-246) and at first did not recognize the area. He was then referred to the index map and recognized Frazer

Island on the right bank. Adjacent to Frazer Island was the bar area which appeared to be an emerging island in the river and the witness circled the bar area in the river in the vicinity of Frazer Island in red on Exhibit P-246. It was in the same location as the area marked on Exhibits P-246 and P-2703.

On redirect examination, the witness called the area a sandbar which he had outlined in red somewhat north of the north end of Schemmel Island and approximately east of Frazer's Island on Exhibit P-246. There were channels of water flowing both to the east and west of it, and he had an opinion as to which of those channels was the main channel when the picture was taken. On recross-examination, the witness testified he looked at the 1931 map of the Corps of Engineers to form a positive conclusion as to which was the main channel around that sandbar. He did not look at the '36 aerial to check his opinion. He then said he used the island in the aerial photo of 1930 to see if it was in the same position as on the 1931 Corps of Engineer map which was a hydrographic survey. He said, "Certainly, the soundings should be accurate and should I have not seen the soundings, I would have still said that the thread of the stream in this particular area runs on the concave side to the east of the island." (Vol. XXV, p. 3666).

Mr. Jauron also testified on cross-examination that, when he was making his investigation of the Corps records, he did not use the Project & Index maps from the Corps and, after examining them, he said he never did use them.

He was then referred to the name "Givens" (referred to as Gibbons by the Court Reporter at various places) written on Exhibit P-256, the 1960 aerial photograph of the Schemmel area. He was asked about some land north of the Schemmel area claimed by the State of Iowa and said he knew that Mr. Givens some way settled with the State of Iowa through his attorney. The line was surveyed but the witness couldn't answer whether deeds were given or not. He was asked if he made an agreement as to where the fence would be and at first testified he did not make any agreement; that was made in the office by the Attorney General. He was then referred to a deposition in which he was asked the following questions and gave the following answers:

"Q. Does the State of Iowa, to your knowledge, or the Conservation Commission, to your knowledge, have any understanding with a Sally Givens . . . or anyone of the Givens family as to what land in that area Iowa will claim or will not claim?

A. Our surveyors were there and I personally made a fence line agreement between the Givenses and the State of Iowa.

Q. What was the nature of that agreement?

A. That they would come to a certain point and claim no further to the east. We would come to a certain point west and we would come to a certain point and claim no further to the west. We established a boundary between the Givens property and the State of Iowa."

Do you recall being asked those questions and giving those answers?

A. Apparently I did.

Q. And that was this property on Exhibit P-256 that we were talking about, wasn't it?

A. I made the agreement, what was carried out. I answered it and I answered it honestly. I don't know what the lawyers did.

Q. But you made the deal with the Givenses?

A. I made an agreement that I went and related to the Attorney General, right." (Vol. XXV, pp. 3645-3646).

The witness then testified that he would say that the Attorney General or Mr. Murray, or whoever was the attorney told the surveyors, Mr. Weaver and Mr. Windenburg, what to survey.

With reference to Exhibit P-2667 which shows the California Bend area and is marked # 22, that is approximately what Iowa claims and Iowa does not claim any other abandoned river beds in that area. He was then referred to Exhibit P-1625 showing the river at Sandy Point Bend and the so-called Pegg Land. The witness was pretty familiar with that area and he has hunted there. He has also hunted within the area enclosed by the red line marked "Nebraska". He testified there is a high bank line to the east of the 1943 Compact line approximately 350 feet. Iowa does not claim any land between that high bank and the Compact line.

Defendant offered several maps and aerial photographs which purportedly had the locations of Schemmel or Nottleman Island placed upon them. These were done by Mr. Larry Bartleman, a draftsman for the Iowa Conservation Commission. There were several errors pointed out in the location of the areas. For instance, on Ex-

hibit D-1092-A, he placed Schemmel Island about 500 feet to the east of where it would have been located. In the Nottleman area, on a 1928 map (Exhibit D-1036-A) the northern portion of the Island is about 400 feet south of Mile 630 (of the 1890 thalweg) whereas on the 1931 map (Exhibit D-371-A) the north end of the Island is about 800 feet north of that Mile number 630. Consequently, the north end of Nottleman Island as located by Mr. Bartleman varied 1200 feet between the two exhibits. In the 1930 map (Exhibit D-1041-A) the north end of Nottleman Island is located between where it appears on the two other exhibits. A comparison of these various locations of Nottleman Island can also be made with the location of King Hill or Calumet Point.

While the witness was on the stand at one stage of the proceedings, he discovered that he mis-located the Windenburg traverse on a map and an aerial mosaic and these exhibits were not offered at that time. The witness then relocated the traverse of Nottleman Island on a 1926 mosaic of aerial photographs. He had destroyed the original exhibit so it was impossible to make a direct comparison but he testified that he was quite a bit north and it was up river too far but he didn't know the distance. When asked how he happened to make that mistake he said, "I suppose it was just in the mad rush of things, I just mis-located it is all." (Vol. XXIV, p. 3506). He also reworked the 1926 map showing Nottleman Island (Exhibit D-1035-A). Plaintiff submits that there is serious question concerning foundation as to the location of all of the Nottleman and Schemmel areas on the various exhibits prepared by this witness.

The accuracy of Mr. Brown's measurements were verified by Iowa's witness, Mr. Frances W. Mann, a professional engineer and land surveyor from Council Bluffs, Iowa. He was given the Nebraska State Surveyor's field notes with regard to tree number 230, and using Mr. Brown's coordinates, Mr. Mann's survey came within the circumference of the tree stump.

Respectfully submitted,
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PROOF OF SERVICE

I, Howard H. Moldenhauer, Special Assistant Attorney General of the State of Nebraska, and a member of the Bar of the Supreme Court of the United States, hereby certify that on....., 19....., I served a copy of the foregoing Plaintiff's Resume' of Evidence Before The Special Master Honorable Joseph P. Willson by depositing same in a United States Post Office, with first class postage prepaid, addressed to:

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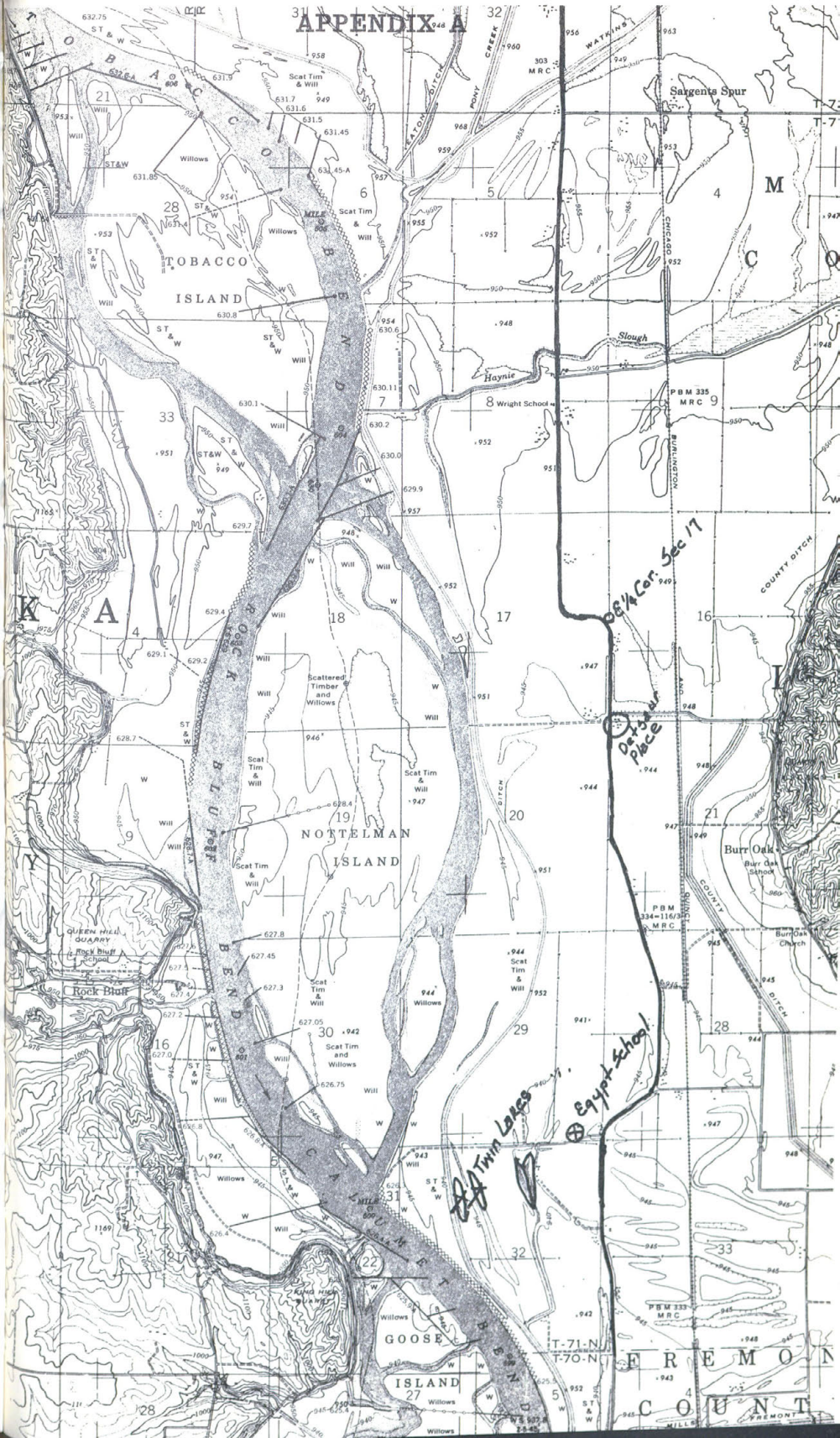
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APPENDIX A



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