In the Supreme Court of the United States

OCTOBER TERM, A. D. 1927.
NO. 7 ORIGINAL,
HEARD WITH NOS. 11 AND 12 ORIGINAL.

STATE OF WISCONSIN, STATE OF OHIO, STATE OF PENNSYLVANIA and STATE OF MINNESOTA,
Complainants,

VS.

STATE OF ILLINOIS AND SANITARY DISTRICT OF CHICAGO,
Defendants,

STATE OF MISSOURI, STATE OF TENNESSEE, STATE OF KENTUCKY, STATE OF ARKANSAS, STATE OF MISSISSIPPI AND STATE OF LOUISIANA,
Intervening Defendants.

BRIEF FOR COMPLAINANTS IN NO. 7 ORIGINAL.

JOHN W. REYNOLDS,
Attorney General of Wisconsin,

HERMAN L. EKERN,
Special Assistant Attorney General of Wisconsin,

R. T. JACKSON,
Special Assistant Attorney General of Wisconsin,

HERBERT H. NAUJOKS,
Assistant Attorney General of Wisconsin

G. A. YOUNGQUIST,
Attorney General of Minnesota,

EDWARD C. TURNER,
Attorney General of Ohio,

NEWTON D. BAKER,
Special Assistant Attorney General of Ohio,

T. J. BALDRIDGE,
Attorney General of Pennsylvania.

In the Supreme Court of the United States

OCTOBER TERM, A. D. 1927.
No. 7 ORIGINAL,
HEARD WITH NOS. 11 AND 12 ORIGINAL.

STATE OF WISCONSIN, STATE OF OHIO, STATE OF PENNSYLVANIA and STATE OF MINNESOTA,
Complainants,

VS.

STATE OF ILLINOIS AND SANITARY DISTRICT OF CHICAGO,
Defendants,

STATE OF MISSOURI, STATE OF TENNESSEE, STATE OF KENTUCKY, STATE OF ARKANSAS, STATE OF MISSISSIPPI AND STATE OF LOUISIANA,
Intervening Defendants.

BRIEF FOR COMPLAINANTS IN NO. 7 ORIGINAL.

JOHN W. REYNOLDS,
Attorney General of Wisconsin,

HERMAN L. EKERN,
Special Assistant Attorney General of Wisconsin,

R. T. JACKSON,
Special Assistant Attorney General of Wisconsin,

HERBERT H. NAUJOKS,
Assistant Attorney General of Wisconsin

G. A. YOUNGQUIST,
Attorney General of Minnesota,

EDWARD C. TURNER,
Attorney General of Ohio,

NEWTON D. BAKER,
Special Assistant Attorney General of Ohio,

T. J. BALDRIDGE,
Attorney General of Pennsylvania.

INDEX.

THE LAW.

AUTHORITIES CITED.

STATUTES CITED.

In the Supreme Court of the United States

October Term, A. D. 1927.
No. 7 Original,
Heard With Nos. 11 and 12 Original.

State of Wisconsin, State of Ohio,
State of Pennsylvania and State of
Minnesota,
Complainants,

vs.

State of Illinois and Sanitary
District of Chicago,
Defendants,

State of Missouri, State of Tennessee,
State of Kentucky, State of Arkansas,
State of Mississippi and State of Louisiana,
Intervening Defendants.

BRIEF FOR COMPLAINANTS IN NO. 7 ORIGINAL.

This original action was begun by the State of Wisconsin in 1922 against the State of Illinois and the Sanitary District of Chicago. In October 1925, leave was granted by the court to file an amended complaint joining the States of Minnesota, Ohio and Pennsylvania as complainants. On January 4, 1926, the defendant, State of Illinois, filed its motion to dismiss and the Sanitary District of Chicago filed its answer and motion to dismiss. On January 25, 1926, the so-called River States, being the States of Missouri, Tennessee, Kentucky and Louisiana, filed a motion to be admitted as intervening defendants and to dismiss the bill of complaint. On November 1, 1926, the states of Arkansas and Mississippi filed motions to be admitted

as intervening defendants and to adopt the answer heretofore filed. As the record indicates, Original Action No. 11 was begun by the State of Michigan, Complainant, vs. the State of Illinois and the Sanitary District of Chicago, Defendants, on the 8th day of March 1926, and Original Action No. 12 by the State of New York, Complainant, vs. the State of Illinois and the Sanitary District of Chicago, Defendants, on October 22, 1926. Similar motions to dismiss were addressed to these bills. The motions to dismiss were argued and overruled.

By its order in No. 7 Original, this Court on the 7th day of June 1926, referred the cause to Charles Evans Hughes, Esquire, as Special Master, with directions and authority to take the evidence and to report the same to the Court with his findings of fact, conclusions of law, and recommendations for a decree—all subject to an examination, consideration, approval, modification or other disposal by the Court.

In the order of June 7, 1926, the court authorized the parties in No. 11 Original, being the State of Michigan vs. State of Illinois, and Sanitary District of Chicago, if they so elected, to participate in the taking of evidence and in the hearing before the Special Master, in like manner and in like effect as if that suit had been consolidated. By later order, on November 23, the court authorized the parties in No. 12 Original, being the State of New York vs. the State of Illinois and the Sanitary District of Chicago, likewise to participate.

The parties in Nos. 11 and 12 Original did elect to participate in the hearings and between November 8, 1926, and June 3, 1927, extensive hearings were had before the Special Master in accordance with the orders of the court, and the report of the Special Master was duly filed. Whereupon, pursuant to orders of the court, exceptions

were filed to the report of the Special Master and this brief is filed to sustain the exceptions filed by the complainants, the States of Wisconsin, Minnesota, Ohio and Pennsylvania in No. 7 Original. This brief deals first with the facts and second with the law of the case.

STATEMENT OF AND ARGUMENT ON THE FACTS.

I.

THE NATURAL CONDITIONS WHICH OBTAINED IN THE GREAT LAKES-ST. LAWRENCE WATERSHED.

1. The Natural Waterway.

The Great Lakes-St. Lawrence system is a natural waterway, consisting of Lake Superior, St. Marys River, Lake Michigan, Lake Huron, St. Clair River, Lake St. Clair, Detroit River, Lake Erie, Niagara River, Lake Ontario and the St. Lawrence River. It constitutes one of the principal topographical features of the complainant States. It was navigable in a state of nature, and its navigable capacity has been improved by local, Federal and Canadian agencies. Under natural conditions all of the waters of the Great Lakes-St. Lawrence system discharged Eastward through the St. Lawrence River into the Atlantic Ocean.

2. Total Shoreline and Drainage Area of Lake System; Portion Lying in Illinois; Natural Contribution of Illinois to Net Water Supply.

This waterway has a shore-line of 8300 miles, of which only about 60 miles lie within the State of Illinois, *Master's Report 107. Exhibit 78.*

The total land area of the Great Lakes-St. Lawrence drainage basin is 202,910 square miles, of which only 715 square miles lie within the defendant State of Illinois. *Master's Report 86. Exhibits 79, 80.*

Under natural conditions the mean annual contribution of the State of Illinois to the net water supply of this system was 503 cubic feet per second. *Master's Report 23.*

3. Natural Flow of Rivers Affected by the Diversion.

In a state of nature the Chicago River, the Little Calumet River and the Grand Calumet River flowed into Lake Michigan and contributed to the water supply of the Great Lakes-St. Lawrence system. *Master's Report 10-11.*

The Des Plaines River lay on the Westward side of the continental divide at Chicago. However, under natural conditions part of the flood waters of the Des Plaines River spilled over the continental divide near Chicago and constituted a part of the water supply of the Great Lakes-St. Lawrence system. *Master's Report 11.*

II.

THE CHANGES PRODUCED BY THE SANITARY DISTRICT OF CHICAGO IN THE NET WATER SUPPLY AND FLOW OF THE RIVERS AND LAKES OF THE GREAT LAKES-ST. LAWRENCE SYSTEM.

1. The Effect of the Construction of the Main Channel.

During the period from 1892 to 1900 the Sanitary District, acting as an agency of the State of Illinois, cut through the continental divide between the Mississippi River watershed, and the Great Lakes-St. Lawrence watershed at Chicago by constructing an artificial channel from the Chicago River to the Des Plaines River for the purpose of carrying the sewage of Chicago across the divide into the Des Plaines and Illinois Rivers. On January 17, 1900, the Sanitary District turned the waters of the Chicago River and Lake Michigan into this artificial channel, since which date the Chicago River has been con-

tinually reversed by the acts of the Sanitary District, so that its waters no longer flow into Lake Michigan, but, together with a substantial portion of the waters of Lake Michigan, have flowed Westward into the Mississippi River. *Master's Report 18-19.*

2. Interference with Flow of the Des Plaines River.

Subsequent to the opening of the drainage canal the Sanitary District constructed works which prevented the flood waters of the Des Plaines from overflowing into the Great Lakes-St. Lawrence basin and thus deprived that basin of its water supply. *Master's Report 23-24.*

3. Effect of the Construction of the Calumet-Sag Channel.

Between the years 1911 and 1923 the Sanitary District of Chicago constructed a second artificial channel from the Little Calumet River to the main drainage canal near Sag. This channel was opened in 1923 and since that time the Little Calumet River has been reversed under normal conditions so that its waters no longer flow into Lake Michigan, but, together with a portion of the waters of Lake Michigan, flow Westward into the Mississippi River. *Master's Report 21.*

4. Extent of the Abstraction.

Subsequent to January 17, 1900, the quantity of water which was being abstracted from the Great Lakes-St. Lawrence watershed, and caused to flow Westward into the Mississippi River through the aforesaid artificial channel, constantly increased until it reached a mean annual maximum of 9465 cubic feet per second in 1924, and thence fell to an average of approximately 8250 cubic feet per second for 1925 and 1926. *Master's Report 22-23.* The

lesser flow in 1925 and 1926 was occasioned by the fact that lake levels had fallen so low that the Sanitary District found it physically impossible to draw a greater quantity of water through its existing channels in their then condition through those years. *Joint Abstract 123, 185.* The Sanitary District is now dredging the Little Calumet River to increase its discharge capacity and obviate this difficulty. The foregoing total flow of water through the drainage canal has passed into the Mississippi watershed and has been permanently lost to the Great Lakes-St. Lawrence system. *Master's Report 23.*

5. Extent of the Right of Abstraction Asserted by the Sanitary District.

The Sanitary District of Chicago, by reason of an alleged Permit or consent of the Secretary of War, bearing date March 3, 1925, now asserts the right to abstract from the Great Lakes-St. Lawrence watershed an annual average of 8500 cubic feet per second of water, plus the domestic pumpage of the City of Chicago, which, under the conditions obtaining in 1926, constitutes an assertion of right to abstract a mean annual average of 9900 cubic feet per second of water from the Great Lakes-St. Lawrence watershed. *Master's Report 23, 85, 95. Joint Abstract 125, 170, 182.*

Since the domestic pumpage of Chicago shows a steady and rapid increase, there is no definite limitation of this claim of right to abstract these waters. *Master's Report 23.* An effort is sometimes made by the defendants to differentiate between the domestic pumpage of Chicago and the diversion of the Sanitary District. The City of Chicago does not divert any water from the Great Lakes. But for the acts of the Sanitary District the domestic pumpage would return to the watershed from which it is taken

in the customary and usual way where water is taken for domestic purposes. It is only necessary to state that if the controlling works of the Sanitary District were closed, none of the domestic pumpage of Chicago would be diverted. The constant increase in Illinois' demand for the abstraction of these waters is further shown by the fact that the area of the Sanitary District was increased from 185 square miles to 438 square miles during the period from 1890 to date. *Master's Report 17-18.*

6. Comparison of Annual Contribution of Illinois to Net Water Supply, with Extent of Abstraction.

The State of Illinois, acting through the Sanitary District of Chicago, is not only withholding its entire natural contribution to the water supply of the Great Lakes-St. Lawrence system, but has abstracted and is now abstracting therefrom approximately seventeen times the quantity of water which it would contribute under natural conditions to the net water supply of this waterway. It is asserting the right to divert approximately twenty times the annual contribution of the State of Illinois to such net water supply.

The State of Illinois is an upper riparian state. It requires no argument to show that the State of Illinois, acting through the Sanitary District of Chicago, is not only withholding the whole of its annual contribution, but is appropriating and abstracting water which was contributed by and originated in other states littoral to the Great Lakes, and which was drawn into the boundaries of the State of Illinois from the lower riparian states by the acts of which complaint is made.

III.

THE DAMAGES SUFFERED BY COMPLAINANT STATES BY REASON OF THE CHANGE FROM NATURAL CONDITIONS OF THE GREAT LAKES-ST. LAWRENCE WATERSHED PRODUCED BY THE ACTS OF THE SANITARY DISTRICT OF CHICAGO.

The damages which have been caused and are being caused by the abstraction of the waters of the Great Lakes-St. Lawrence watershed by the Sanitary District of Chicago are large, widespread and varied, as might well be anticipated from an act which, without regard to or for the rights of the seven other States of the union and the foreign nation littoral to this waterway, undertook in a substantial degree to upset the balance of nature in a waterway with over 8300 miles of shoreline and a drainage basin of approximately 300,000 square miles. *Master's Report 86, 107.* Since this suit is not for the recovery of money damages, it has not been necessary to prove with precision the extent or pecuniary measure of the damages suffered, but merely to point out their nature and serious character, although in some cases their extent has been shown.

The Special Master has found that the complainant States and their people have sustained substantial damages by reason of the diversion through the Chicago Drainage Canal. *Master's Report 105-118.* It is our purpose here to point out the widespread character and varied nature of these damages. The damages to the complainant States and their peoples, which have been caused and are being caused by the Chicago abstraction fall into three general classes: 1st, the direct damages to navigation; 2nd, the damage to riparian property of a non-navigational character; and 3rd, the damages to the proprietary and quasi-sovereign rights of the complainant States.

1.

Direct Damage to Navigation and Navigation Interests.

The report of the Special Master establishes that the diversion has caused a lowering of six inches in Lakes Michigan and Huron, and five inches in Lakes Erie and Ontario, which lowering affects to the same extent the connecting and outlet rivers and all inner harbors, bays, inlets and river mouths along the respective shore lines of these waters. *Master's Report 104.* This artificial lowering has increased the hazards and dangers of navigation and contributed to groundings and strandings, which damages are even more serious when natural conditions produce low lake levels. *Master's Report 116.*

This artificial lowering affects both interstate and intrastate commerce over these waters. It decreases the carrying capacity of the large lake vessels which carry 95% of the freight, by from 540 to 600 tons per cargo. *H. D. 270, 69th Cong. 1st Sess. p. 24, table 7, cited Master's Report 113, Master's Report 114, 115.* At the average freight rate found by Colonel Markham it decreases the revenue of a boat $528 per cargo. *Master's Report 114.* This must be reflected in transportation costs to the people of the complainant States. This loss is more serious because it is the last part of the cargo, the surplus over running expenses and fixed charges, which gives the profit. Thus the obstruction of the navigable capacity of all of these waters casts a tremendous burden upon both interstate and intrastate commerce thereon. The extent of this burden may be appreciated by illustration. The average loaded freight car in the United States carries 30 tons. If Illinois were to pass an enforcible law requiring every freight train operating in the complainant States, for the purpose of transporting the products of their mines, fields and factories, to carry at its back twenty empty freight

cars, and require each of the additional freight trains, which would have to be placed in operation to make up for this economic loss, to likewise carry twenty empty freight cars, the effect thus produced upon land transportation in the complainant States would be the same as the effect which has been produced on the lakeborne commerce of the complainant States by the obstruction of the navigable capacity of those waters through the extraterritorial operation of the laws of Illinois.

There are 400 harbors on the Great Lakes, of which 100 have been improved by the Federal Government. *Master's Report 107.* However, the Federal improvements consist only of a channel from deep water in the lake to the harbor entrance. *Master's Report 107.* The inner harbors, which are the real harbors, and indispensable to practical navigation, have been provided and maintained at local, private and municipal expense. *Master's Report 107.* However, the depth of water in these private and municipal inner harbors is directly dependent upon the level of the respective lakes and their connecting waters. *Master's Report 107.* As an illustration Milwaukee and Cleveland have each spent over $4,000,000 on their inner harbors. The extent of private expenditure is immense but not definitely ascertainable. This artificial lowering of the lakes has obstructed the navigable capacity of these channels and harbors, both improved and unimproved, so as to seriously damage their value and utility. Where harbors were somewhat shallow in any event, their usefulness has been practically destroyed.

The enormous extent of this direct damage to navigation interests in the complainant States can be judged from the fact that the lake commerce in 1925 exceeded 210,000,000 cargo tons and constituted 44% of the total waterborne commerce, both foreign and domestic, of the United States. *Joint Abstract 185-186.*

Since practically all of the commerce of Lake Superior ports is to and from the lower lakes, the value and utility of these ports are equally affected and damaged by this artificial lowering. *Master's Report 108-110.* This impairment of navigable capacity directly damages the great shipping interests of these states by substantially lessening the value and utility of vessels carrying 95% of the freight. *Master's Report 114, 116.* In fact, it affects all vessels, because the smaller vessels usually ply between ports of restricted draft where the larger vessels cannot enter.

In addition to the effect on the general lake trade, this artificial lowering very seriously damages, interferes with and obstructs the navigable capacity and use of small unimproved harbors, landings, bays, inlets, river mouths and shallow sheltered waters, which are used by pleasure boats, fishing boats and other small craft, and which are of great value for such purposes.

Directly from this damage to navigation flows great and incalculable damage to the economic welfare and the economic structure of these states. On the one hand the lake borne coal constitutes 70% of the commercial, industrial and domestic fuel supply of Minnesota, and 60% of the commercial, industrial and domestic fuel supply of Wisconsin. *Exhibit 102, p. 19. Master's Report 110.* On the other hand, lake transportation enables the coal-mining industries of Pennsylvania and Ohio to market large quantities of their output in those states and in other states of the Northwest. *Master's Report 110.* Their market area is directly circumscribed by the cost of transportation. This obstruction of the navigable capacity of these waters by the Sanitary District has placed a substantial burden upon the prosperity and welfare of these industries and the large number of people who are producers or consumers of this coal.

Likewise, Minnesota, Wisconsin and Michigan produce 85% of the iron ore mined in the United States, of which 97% is marketed by water over the Great Lakes in the great steel centers on and near the lower lakes of which the larger part is used in the steel industries of Ohio, Pennsylvania and New York. *Exhibit 102, p. 15 Master's Report 109-110.* Thus the iron miners of Minnesota, Wisconsin and Michigan depend upon this waterway to market their ore, while the steel mills of Ohio, Pennsylvania and New York depend upon this economical transportation of raw material for their very existence. This artificial obstruction of the navigable capacity of this waterway burdens and injures all the people engaged in iron mining in the upper states and also those engaged in the steel industries in the lower states.

The same situation exists with reference to the marketing of grain and dairy products of Wisconsin and Minnesota, and the use of these products as a source of food supply by the people in the great centers of population in Ohio, Pennsylvania and New York. *Exhibit 102, p. 21, 22. Master's Report 108-109.* The situation is well summarized in the official report entitled "Transportation on the Great Lakes," described at page 106 of the Special Master's Report, which states, at p. 419:

> "They (the Great Lakes) permit the grain of the Western prairies and the Canadian provinces to reach Eastern mills and ports of export at substantial savings, compared with all-rail routes. They have brought into economic juxtaposition the ores of Minnesota and Wisconsin with the steel mills of the Lake Michigan, Lake Erie and Pittsburgh districts, and they have enabled the Northwest to secure at very great savings the fuel required for the maintenance of its commerce, industry, and domestic life."

2.

Property Damage of a Non-Navigational Character.

The direct damage to property other than navigation interests is immense. The artificial lowering of lake levels, produced by this abstraction, has caused great damage from decay and loss of support to the millions of dollars worth of docks, wharves and piers in harbors and landings along the shorelines of the complainant States on these waters. *Master's Report 117-118.* Thus the International Joint Board of Engineers found that the artificial lowering had caused a damage of $1,800,000.00 to dock walls alone in Montreal harbor where the lowering is less than on the lakes. *Master's Report 131, 98.*

It has substantially damaged the riparian property along the hundreds of miles of shoreline of the complainant States. The large investments in commercial summer resorts, private summer cottages and homes in the greatest summer resort region of Wisconsin, covering many miles of shoreline, have been seriously damaged and depreciated by this artificial lowering and recession of the waters. This causes a continuing injury to the welfare and prosperity of the people of the state dependent upon the summer resort business for a livelihood. Extensive damage has been caused to fishing grounds, spawning beds, hunting grounds and open marshes which were the natural habitat of valuable and extensive wild life. *Master's Report 117.*

The lowering of the water table adjacent to the lake has caused and continues to cause serious damage to millions of dollars worth of buildings in the retail and wholesale sections of Milwaukee by causing pile foundations on which these buildings rest to decay and give away. *Master's Report 117-118.* This condition exists not merely along the waterfront, but for 4 or 5 blocks back from the

lake and the shores of the three diverging rivers which form the harbor at Milwaukee.

The artificial lowering of the water has likewise substantially damaged all the industrial and domestic private and municipal water supplies along the lakes. The artificial lowering of lake levels obviously affects the capacity and useful life of all private and municipal pumping plants, and in many cases constitutes the critical element requiring reconstruction at great expense. It obviously increases the cost of pumping.

3.

Damage to the Proprietary and Quasi-Sovereign Rights of the Complainant States.

The third class of damage is to the proprietary and quasi-sovereign rights of the complainant States. The States have suffered damage to their parks and fish hatcheries located on the lake shores and as consumers of lake-borne coal for public buildings and institutions. *Master's Report 117.*

The State of Illinois has appropriated a substantial portion of the public waters which belonged to said States in their sovereign capacities and has laid bare a portion of the submerged lands beneath said waters which belonged to said States in their quasi-sovereign capacities. The State of Illinois has appropriated the property of complainant States and through extra-territorial legislation has appropriated and confiscated the property of the citizens of complainant States against the will of those sovereignties from whom alone such property rights flow without compensation, and thus has invaded the territorial and quasi-sovereign rights of said States.

4.

The Continuing Character of the Damages Inflicted.

The foregoing damages and injuries are continuing and annually recurring damages and injuries which will continue so long as the Chicago abstraction is not abated.

The question now presented is whether such injuries can be inflicted upon the complainant States and their peoples against their will and without compensation.

IV.

THE SANITARY DISTRICT THREATENS TO CAUSE A SUBSTANTIAL INCREASE IN THE DAMAGES SUFFERED BY COMPLAINANT STATES AND THEIR PEOPLE.

Under the terms of the Permit of March 3, 1925, the Sanitary District of Chicago asserts the right to abstract 8500 cubic feet per second of water, plus the domestic pumpage of the City of Chicago. *Master's Report 95. Joint Abstract 170.* This will permit an increase of the abstraction of over 1500 cubic feet per second and such increase will cause additional lowering in the lake levels of about one inch. *Master's Report 105.*

The assertion of this right threatens a further substantial increase in the extent of the various kinds and types of damage to the complainant States in their various capacities and the peoples of those States, in addition to the damage which has already been and is being inflicted.

V.

THE INSTANT DIVERSION AND THE DEMAND THEREFOR HAS BEEN AND IS SOLELY FOR SANITARY AND POWER PURPOSES.

1.

Sanitation is the Sole Purpose of the Diversion Outside of the Power Desires of Illinois and the Sanitary District.

An examination of the origin of this diversion, coupled with all of the requests to increase the flow from time to time, together with the recommendations thereon of the members of the Corps of Engineers and the reluctant consents given from time to time by the various Secretaries of War, conclusively establishes that the diversion was created on the one hand by the Sanitary District of Chicago, solely for sewage disposal although coupled with a powerful underlying motive since 1907 to increase the flow for water power purposes, and permitted on the part of the various Secretaries of War solely to meet a case of alleged sanitary necessity with obvious reluctance because of the definite knowledge that such diversion was seriously injurious to navigation.

In 1870 Illinois adopted a constitution which forbade the State to loan its credit or make appropriations in aid of canals. *Joint Abstract 127-128.*

It was while this was the declared policy of the State, laid down in its fundamental law, that the legislation authorizing the construction of the drainage canal was passed, the main channel constructed and the abstraction commenced. The attitude of the State was further disclosed by the joint resolutions passed in 1881 and 1887, which betrayed only the fear of the rest of the State for the health and prosperity of the people of the Illinois Valley, if the Chicago plan to dump its sewage into the

Illinois Valley were carried out. *Joint Abstract 128-130.* There is no suggestion of navigation in the resolutions of 1887, which provide for the appointment of the committee to make the investigation from which the Sanitary District Act eventually evolved. It will be argued that the Resolution of May 28, 1899, which was a memorial to Congress, and which was adopted practically simultaneously with the Sanitary District Act, established a navigation interest. *Master's Report 16, 17.* However, the third paragraph of this memorial lets the cat out of the bag. The United States is requested to pay for the construction of a proposed channel from Chicago to Lake Joliet, to dispose of Chicago's sewage which could have no relation to navigation along that stretch. The plan there stated provided for a velocity of flow of three miles an hour and a depth of 22 feet, connecting with a project of seven feet in the Illinois and a project of six feet in the Mississippi River. Of course some excuse had to be offered for this bold effort to shoulder the cost of Chicago's sanitation project onto the Federal Government.

Something is attempted to be made of the fact that the Sanitary District of Chicago made certain improvements in the Chicago River in the North Branch, and in the South Branch, including the forks thereof. The improvements in the main Chicago River were solely to facilitate the abstraction of these waters, as appears from the Resolution adopted by the Board of Trustees, April 21, 1891. *Joint Abstract 131.* The application to the Secretary of War, dated June 16, 1896, stated that it was necessary to do this work in the Chicago River "to make available the artificial channel." *Master's Report 34.*

Likewise, the deepening of the South Branch and the East and West arms of the South Branch were to facilitate the abstraction of water and the discharge of sewage. In

fact, a portion thereof was subsequently filled in by the Sanitary District, which could hardly be said to be in the interests of navigation. *Joint Abstract 132.*

The improvements in the North Branch were to facilitate the discharge of water through the North Shore channel. *Joint Abstract 132.*

In many cases, the dimensions had no relations to the draft of vessels using the river while the change in slope depreciated the value and utility of Federal improvements. *Joint Abstract 140.*

There is no single item of work performed in the Chicago River or its branches which was not solely for the purposes of facilitating the discharge of water and the use of the Chicago River as an open sewer. Of course, this conclusion would follow as a matter of course by reason of the fact that the powers of the Sanitary District, under the law of its creation, were limited to sanitary and drainage purposes.

The deepening of the main channel of the Chicago River to 21 feet by the Federal Government had no relation to this diversion. *Master's Report 58, 186.* The main channel is only one mile long. *Master's Report 10.* Analogous to the situation in many lake cities the main channel of the Chicago River constituted the harbor of the City of Chicago until its usefulness was destroyed by the currents introduced by the Sanitary District. The deepening of this harbor was part of the general plan of Government improvements on the Great Lakes where the channels and main harbors were deepened in an attempt to provide for 21 foot navigation. *Master's Report 113.*

A consideration of the reasons assigned by the Sanitary District in its requests for authority to abstract, the recommendations of the various District Engineers and Chiefs of Engineers thereon, together with the action of

the various Secretaries of War on such applications conclusively establishes that the diversion has been sought and permissively authorized, if at all, solely as a sanitary measure in derogation of the rights of navigation. In addition to the various applications and Permits of the Sanitary District, which are set forth in the report of the Special Master, there has been set forth for the convenience of the Court the pertinent parts of all other applications, recommendations of District Engineers and Chiefs of Engineers and the action of the various Secretaries of War, from June 24, 1896, to March 3, 1925, in the Joint Abstract, pages 133-155 and 169-173. These applications, recommendations of the Federal Engineers thereon, and actions of the Secretaries of War may be searched in vain for a suggestion that this diversion was ever sought or permitted in the interests of navigation or was other than a detriment to navigation. Thus the early permits for the performance of work in the Chicago River were given on the condition that they should not constitute an approval of the plans of the Sanitary District of Chicago to introduce a current in that river with misgivings expressed in the various reports as to the authority of the War Department to authorize such an injury to navigation. *Permit July 3, 1896. Master's Report 34-35.*

Every application for diversion and recommendation thereon discloses an injury to navigation from the diversion, with no suggestion of benefit. We invite the attention of the Court to the recommendation of the District Engineer, April 24, 1899. *Joint Abstract 133-136.* In reporting upon the protest of the "Chicago River Improvement Association," with reference to the injury to navigation produced by the diversion, the Engineer suggests that a larger diversion might be permitted during the closed season of navigation, but recommends early action on the

protest with a view to cutting down the diversion "as navigation will open within a few days." Surely this was a peculiar recommendation if the diversion were in aid of navigation. *Joint Abstract 136-137.*

On July 15, 1901, the Sanitary District applied for permission to increase the flow between the hours of 4 P. M. and 12 o'clock midnight, on the grounds that the increase would only affect the currents between 12 o'clock midnight and 6 A. M., during which time there was no navigation. *Joint Abstract 137.* On July 16, 1901, the District Engineer recommended this increase on the ground that there was practically no navigation during those hours and that the Sanitary District would give warning by publication of the increase during these hours as a protection to navigation. *Joint Abstract 137-138.*

In the application of October 16, 1901, the Sanitary District suggested that the improvements in the Chicago River would then permit a diversion of 300,000 c. m. f., without injury to navigation, but limited its request to 250,000 c. m. f. until the close of navigation in order to give the greatest consideration to navigation interests. *Joint Abstract 138.* On November 5, 1901, the Division Engineer reported that this diversion was solely for sanitary purposes; that complaints of injury to navigation therefrom had been loud and repeated and that the diversion should not exceed 250,000 c. m. f., and that a Permit for that flow should be conditioned that the Sanitary District should be responsible for all damages inflicted on navigation interests. *Joint Abstract 138-139.*

Shortly prior to January 17, 1903 the Sanitary District sought permission to increase the diversion to 350,000 c. m. f. during the closed season of navigation, on the ground that during this period navigation interests would

not be injured by such increase. *Joint Abstract 140-141.* The District Engineer recommended the increase during the closed season of navigation, but recommended that it should be reduced to 250,000 c. m. f. on March 31, when navigation opened. *Joint Abstract 141.* Can it be contended in the face of this record that such diversions were had in the interests of navigation?

On January 16, 1907 the Chief of Engineers made a report upon the first application of the Sanitary District to construct the Calumet-Sag Channel, in which he states the great injury to navigation interests from this diversion, and that it had been uniformly held by his Department that no executive officer could authorize this diversion. *Joint Abstract 141-142.* On March 1, 1910 the then Chief of Engineers reaffirmed the view of his predecessor, denying the power of the Department to authorize such an obstruction and injury to navigation as this diversion. This construction of the power of the Department was further amplified in a report of the District Engineer, March 11, 1912, on the application of February 5, 1912, for permission to increase the diversion to 10,000 c. s. f., pending investigation of methods, devices or plans for the treatment of sewage. *Joint Abstract 143, 144-145.* The situation is excellently stated in the opinion of Secretary Stimson, rendered January 8, 1913, of which the portions not set forth in the report of the Special Master appear on pages 145 to 155 of the Joint Abstract.

Under date of November 9, 1920 the Chief of Engineers, in transmitting the Warren Report to the Secretary of War, stated:

> "* * * I concur, except so far as relates to the diversion to be permitted to be made by the Chicago Sanitary District. In respect to this, the trustees of the district have already been advised that the Chief of Engineers would not recommend to Congress any

> diversion greater than 250,000 cubic feet per minute, the limit set in the permit of the Secretary of War dated January 17, 1903, until the district had worked out and presented a suitable and comprehensive plan for treating its sewage so as to render it inoffensive and innocuous, and at the same time reduce to a minimum the quantity of water necessary for its dilution and transportation."

Surely such reduction would not be desired of a diversion for the benefit of navigation. The application of the Sanitary District, dated January 31, 1925, pursuant to which the present Permit was issued, stated that the diversion was desired, "for the purpose of preserving the lives and health of all of its people and the millions of others in constant daily contact with them". *Joint Abstract 158.* On March 2, 1925 the District Engineer at Chicago made his report upon the foregoing application. The pertinent portions of this report are set forth on pages 169-173 of the Joint Abstract. The purpose of the recommendations is stated to be to secure the greatest possible reduction of the diversion in the shortest time consistent with the alleged sanitary necessity, and this recommendation and report may be searched in vain for any suggestion that the diversion provided in the Permit of March 3, 1925, was in any degree for the benefit of navigation. The position of the Chief of Engineers with respect to the diversion, sought in the foregoing application, is stated in paragraph 6 of his report, as follows:

> "It is, of course, highly desirable that the excessive diversion of water from Lake Michigan be reduced to reasonable limits with the utmost despatch. For *humanitarian reasons,* it is impracticable to make the desired reduction instantaneously, and it is believed that the procedure proposed by the district engineer is the most reasonable and just to all concerned that can be adopted." *Master's Report 76.*

There was then issued the Permit of March 3, 1925, which looked not to the preservation of this diversion as an aid to navigation but to its reduction at the earliest possible time, to the least possible amount, for the purpose of minimizing the admitted damage occasioned to navigation thereby. The Permit is set forth on pages 77-80 of the Master's Report.

In the letter of transmittal appearing on page 80 of the Master's Report, the Secretary of War stated the position of the Department as follows:

> "This department has always held and continues to hold that the taking of an excessive amount of water for sanitation at Chicago does affect navigation on the Great Lakes adversely, and that this diversion of water from Lake Michigan should be reduced to reasonable limits with utmost despatch." *Master's Report 80.*

Previous thereto, and on February 2, 1922, the same Secretary of War in transmitting his recommendations concerning a pending bill relating to the Chicago diversion, stated:

> "It is my view that the quantity authorized should be limited to the lowest possible for sanitation, after the sewage has been purified to the utmost extent practicable before it is discharged into the sanitary canal." *Master's Report 71-72.*

From 1908 to 1925 the United States government prosecuted a suit to reduce the diversion. How can it be seriously contended that this diversion has been and is for any purpose other than to provide for the sanitation of Chicago?

In diplomatic correspondence with the government of Great Britain, under date of November 24, 1925, the Secretary of State, with reference to the Permit of March 3, 1925, solemnly assured the Canadian government,

> "* * * that the case before the Secretary of War for action involved the granting of a permit for diversion of water for sanitary purposes only, and that the instrument of authority was worded accordingly." *Joint Abstract 181.*

Is it contended that the purposes of the diversion is one thing in solemn diplomatic correspondence with a friendly nation and another thing in a controversy between sister States of the Union?

2.

Water Power Profits Have Become a Dominant Motive on the Part of Illinois and the Sanitary District.

With the passage of the Illinois Act of May 14, 1903 relating to the development of waterpower by the Sanitary District, a new and powerful motive for the Sanitary District to abstract the largest possible quantity of water from the Great Lakes entered the picture. *Master's Report 19. Joint Abstract 113.* At that time the Sanitary District embarked upon the production of electric power from its abstraction; and with the completion of the power house, commenced the manipulation of the flow for purposes of power development. *Master's Report 19, 24, 26.* The method and extent of the manipulation and abstraction for power is best shown by illustration. The Assistant Chief Engineer for the Sanitary District admits that the records for a typical December day show that between four and five o'clock in the afternoon, the flow at Lockport jumped from 269,000 c. m. f. to 589,000 c. m. f. and the power production from 9,900 kilowatts to 21,600 kilowatts. *Joint Abstract 124.* This manipulation of flow was occasioned by the fact that at that particular time of day in December the day and night power loads overlapped. Independently of the overlapping, the night power load was very much greater than the day power load. *Joint Abstract 124.*

This doubling of the flow in the late afternoon of each day varied with the season of the year, being dependent upon the time when the street lighting load came on in Chicago. *Joint Abstract 125.*

If the Sanitary District found a flow of 269,000 c. m. f. sufficient throughout the day, when the power demand was less and the sewage load greater, why was a flow of 589,000 c. m. f. required during the night when the sewage load was less but the power load greater, if power development was not a controlling factor with the Sanitary District?

This manipulation of flow for power purposes continued until 1925, when the power plant of the Sanitary District was cross-connected with the steam plants of the Commonwealth Edison Company, on an exchange of power basis. Since that time, both the water flow and the power production have been uniform. The Assistant Chief Engineer of the Sanitary District admits a uniform flow could have been maintained as easily before 1925 as since, if the flow had not been manipulated for power production. *Joint Abstract 124-125.*

If the low flow maintained in the daytime was sufficient for sewage disposal, then the more than doubled flow at night must have been for power.

On re-direct examination, the Assistant Chief Engineer attempted to minimize this manipulation for power by stating that it was merely a process of storing water in the lower end of the canal in the daytime and drawing it off at night. The witness finally admitted, when forced to answer the question by the Special Master, that such doubling of the flow during the night affected the current in the Chicago River by over 50% of the increase, by 7:00 o'clock the next morning, which increased current continued

for three or four hours after closing the controlling gates at Lockport to accumulate the storage which had been drawn off during the preceding night. *Joint Abstract 126-127.* While this witness said he did not think such increase in the current of the Chicago River interfered with navigation it is obvious that it necessarily injured navigation.

The witness admitted that the storage of water in the lower end of the canal during the daytime for use for power purposes at night hindered the drawing off of storm water from the Chicago area in the event of floods, and that it was better to have the canal lower at Lockport. *Joint Abstract 127.*

One of the stock pleas of the Sanitary District for an abstraction of 10,000 c. s. f. has been and still is, that such a flow is necessary when the sewage is untreated to keep the Chicago River reversed in time of storm and that the flow must be continuous because it is impossible with the control at Lockport to increase the flow in sufficient time to prevent the reversals of the river in time of storm, if a smaller flow were maintained at Lockport at other times. Of course a change of place of control to a point nearer the lake would obviate this alleged difficulty. However, in any event, the sincerity of this plea is shown by the fact that the Sanitary District from 1908 to 1925 reduced the flow at Lockport to about 4167 c. s. f. through the day (in fact, at times much lower), and stored water for power purposes in the lower end of the canal which was then withdrawn at night. Apparently the matter of the reversal of the Chicago River in time of storm can be prevented satisfactorily with a flow much less than half of that claimed necessary throughout the long summer days, if it is necessary to do so in order to store water for the production of power.

Part of the power produced by the Sanitary District has been sold to commercial users and part has been used

by the Sanitary District and allied municipal corporations of Illinois. The consulting engineer and former chief engineer of the Sanitary District states that the profit to the Sanitary District on power sold was about $29.00 per horsepower. *Joint Abstract 127.*

The argument is always made by the defendants that because the balance of this power is used by the Sanitary District and the allied municipal corporations of Illinois, there is no profit from such power. Such an argument does not seem to deserve an answer. Whether the power is sold to commercial users or consumed by the Sanitary District, the profit is the same. In the case of the power used by the district it is the difference between the cost of power to the district and what it would have to pay in the open market. The Chief Engineer of Illinois states that the power site of the Sanitary District has a net annual value of $870,000, with a capitalized value, at 4%, of eighteen or nineteen million dollars, and that if the diversion at Lockport were limited to the lockage water used for navigation, this power site would have no value. *Joint Abstract 122.*

The effect of the power motive on the demands of the Sanitary District for water was noted in the opinion of Secretary Stimson in 1913, when he said:

> "It is manifest that so long as the city is permitted to increase the amount of water which it may take from the Lakes, there will be a very strong temptation placed upon it to postpone a more scientific and possibly more expensive method of disposing of its sewage. This is particularly true in view of the fact that by so doing it may still further diminish its expenses by utilizing the water diverted from the Lakes for water power at Lockport." *Master's Report 65.*

With the adoption of a program, by the Sanitary District, of power development from the abstraction of the

waters of Lake Michigan, the State of Illinois became interested. It suddenly decided to reverse its policy engrafted upon its fundamental law of 1870, forbidding the appropriation of money or the loaning of credit in the aid of canals. But this revision of policy was limited to a single waterway in the State and to that portion of such waterway from which valuable waterpower could be developed if a large quantity of water were abstracted from Lake Michigan. In suggesting the desirability of revising the old policy with respect to a particular section of a single waterway, the governor of the State pointed out in a message to the legislature that by undertaking this work the State would derive a net annual income of $3,000,000 a year from electric power, developed from the abstracted waters of Lake Michigan. *Joint Abstract 115.*

In 1908 the people of Illinois amended their constitution so as to provide for the construction of what is known as the Illinois waterway, and the appropriation of the waterpower thereof to the State. *Joint Abstract 115.* The Chief Engineer of the Illinois waterway stated that in adopting this amendment the voters of Illinois were influenced by the prospect of obtaining a net annual income of $3,000,000 by the abstraction of the waters of Lake Michigan. *Joint Abstract 120.*

Subsequently, the legislature of Illinois passed the Illinois Waterway Act of June 17, 1919, providing for the appropriation of the waterpower from Lockport to Utica. *Joint Abstract 116.* At the time when Illinois adopted the so-called Illinois Waterway Project and up to the passage of the River and Harbor Act of 1927, no agency, either state or federal, had made any improvements or had charge of the section from Lockport to La Salle. *Joint Abstract 116.* However, Illinois did not elect to improve this whole

section so as to provide a connection between the Sanitary District canal and the head of the federal improvement at La Salle, Illinois. Instead, the section selected extended from Lockport down to a point just beyond the last available power site at Starved Rock, which is a little above Utica, and left an unimproved stretch of about seven miles from that point to the head of the federal improvement which would prevent any through navigation. *Report of Col. W. B. Judson, Joint Abstract 116. Woermann, Joint Abstract 119. Barnes, Joint Abstract 121.*

The Illinois waterway commenced at the first available power site southwestward from Lake Michigan and ended at the last available power site as one proceeds towards the Mississippi River. It includes all the available commercial power sites between Lake Michigan and the Mississippi River. *Joint Abstract 117, 119.*

United States Assistant Engineer, Woermann, a witness for the defense, testified that these power sites on the Illinois waterway would, in his opinion, be very valuable if there is a large flow of water from Lake Michigan, but if the flow from Lake Michigan were limited to the quantity needed for lockage purposes, these power sites would not have any value. The measure of their value is the amount of water that can be obtained from Lake Michigan. *Joint Abstract, (Woermann) 119.*

The Chief Engineer of the Illinois Waterway admits that the power sites at Lockport and at Brandon Road would not have any value if there were no diversion from Lake Michigan, except what was actually used for navigation. *Joint Abstract 122.* While he attempted to quibble with respect to the other power sites on the Illinois River, on the theory that there might be some power development even if the diversion were limited to the needs

of navigation, since the Lockport lock has the highest lift and the lower locks would not need so much lockage water and the difference could be used for power, it is obvious that none of these power sites have any practical value unless a large quantity of water above the needs of navigation on the Illinois waterway can be obtained from Lake Michigan. *Joint Abstract 121-123.*

The evidence of the Chief Engineer of the Illinois Waterway shows that with the desired 10,000 c. s. f. abstraction from Lake Michigan, 34,800 horsepower can be developed at Lockport, 72,600 horsepower at the four state dams, and 11,500 horsepower at the Marseilles dam, where private interests claim some rights against the State. *Joint Abstract 120.* He states that on a very conservative estimate, the four state dams would produce a net annual income—under contracts whereby the lessees pay for the maintenance and operation of the plants—of not less than $1,815,000, with a capitalized value at 4% of $37,875,000, after deducting cost of the development. *Joint Abstract 120.* On the same basis, the power site at Marseilles, which appears to be in dispute between the State and private interests, would produce an additional net annual income of $287,500, with a capitalized value of over $7,000,000. *Joint Abstract 120.*

Including the income from the Lockport power site, this means a net annual profit from the abstraction of the waters of Lake Michigan to the State of Illinois and its agencies, of approximately $3,000,000. Any power company would be delighted to build the Illinois Waterway on such a basis. If the quantity of water diverted were restricted to the needs of navigation, these power sites would have no value and the profits would disappear. Can it be questioned that the attempt to obtain this huge income from the abstraction of the waters of Lake Michigan is a

powerful and controlling factor in the demands of Illinois for a large abstraction of water?

The exaggerated claims of Illinois for water must be examined in the light of the power motive. It is extremely significant that it only amended its constitution to undertake or permit a single waterway improvement which commenced at the first available power site and ended at the last available power site and which left a stretch of seven miles unimproved between the lower end of the state project and the head of navigation on the federal project. Doubtless it would have been extended farther if there had been another power site.

VI.

ANY CLAIM OF A NAVIGATION PURPOSE FOR THE INSTANT DIVERSION FAILS.

1.

The Chicago diversion is injurious to navigation on the Drainage Canal and the Chicago River.

Since the Drainage Canal is on the same level as Lake Michigan, it is obvious that the only effect of cutting off the diversion would be to remove the current from the Drainage Canal, which would be a distinct advantage to navigation thereon. In this respect the District Engineer of Chicago, in his report entitled: "Diversion of Water from Lake Michigan", dated November 1923, stated:

> "So far as the navigation of the Chicago River and the Drainage Canal is concerned, if the flow at Lockport were throttled and the power house gates closed so as to permit no diversion from Lake Michigan, conditions would be decidedly improved." *Joint Abstract 179.*

2.

Past and present diversions have not been, and are not now, in aid of navigation on the Illinois Waterway; and if and when the Illinois waterway is ever completed any diversion in excess of 1,000 second feet will not be for the benefit of navigation on that waterway.

The Illinois waterway is nowhere near completion, and of course there is not now, and never has been in the past, any navigation thereon. Obviously past and present diversions cannot be for the benefit of navigation in any degree on the Illinois waterway. However, if and when that waterway may be completed, no diversion in excess of 1,000 second feet will be for the benefit of navigation thereon.

The Illinois waterway extends from Lockport, Illinois, to a certain wagon bridge about one and one-half miles above Utica. *Joint Abstract 116, 119.* It is conceded by everyone that the only feasible method of navigation over this stretch is on a slack-water system by means of locks and dams. Hence any water in addition to the amount necessary to provide lockage water is of no value to navigation on this waterway. If the water for lockage purposes is to be diverted from Lake Michigan the only question then is as to the quantity necessary to provide lockage water thereon.

The Chief Engineer of the Illinois waterway estimates the maximum capacity of this waterway at 60,000,000 tons per annum, although Federal Engineers have estimated the capacity to be somewhat larger. *Joint Abstract 57.* Colonel Keller, a retired army engineer, states that with locks of the size designed and being built in the Illinois waterway, a water supply of 1,000 second feet throughout the year, would be more than sufficient to accommodate a traffic of 100,000,000 tons annually. *Joint Abstract 3.* General W.

H. Bixby, retired Chief of Engineers, states that a water supply of 500 to 1,000 second feet will be more than ample to supply this waterway when it is completed, and that a large diversion would produce dangerous currents. *Joint Abstract 5, 6.*

The only other testimony with reference to the lockage requirements of the Illinois waterway is that of M. G. Barnes, Chief Engineer of the Illinois waterway, who testified on direct examination, that if and when this waterway should be used to its maximum capacity it would require 1500 c. s. f. for lockage purposes. *Joint Abstract 57.* However, on cross examination, he admitted that a water supply of 1,000 c. s. f. would permit 28½ lockages per day, and with open navigation throughout the year, would accommodate a commerce of over 93,000,000 tons per annum. *Joint Abstract 58.* He further testified that the time required for a lockage would be approximately one hour. *Joint Abstract 59.* If, as shown by his testimony, a water supply of 1,000 c. s. f. will permit 28½ lockages per day and it takes one hour to complete a single lockage, it is very difficult to understand his estimate that it would require 1500 c. s. f. to supply lockage for a maximum use of the canal. In the report of the Illinois River, (Illinois,) transmitted to Congress March 29, 1926, the District Engineer estimated the potential traffic along this route, if and when there should be a through 9-foot channel from Lake Michigan to the Lower Mississippi, at 7,515,000 tons per year. *Joint Abstract 64.* On this basis, even if Mr. Barnes had been correct in his estimate of the lockage water required for use on this waterway at its maximum capacity, the potential lockage requirements would have been less than 188 c. s. f.

Every official document which has spoken upon the subject of the requirements for lockage water upon such a

waterway, has stated that 1,000 second feet would be more than ample. *Joint Abstract 40-44.*

The Special Master stated in his Report that a reduction in the diversion materially below 4167 c. s. f. would necessitate radical changes in the design and location of the locks on the Illinois waterway. *Master's Report 119. Complainant's Exception VIII.* While we believe the question immaterial, this conclusion is contrary to the evidence.

On this point the Chief Engineer of the Illinois waterway testified on direct examination that a reduction of the diversion to 1,000 c. s. f. would require a change in the design and construction of the locks. This statement, however, was based solely upon a legal quibble that the Illinois statute directed the locks to be 14 feet; and on cross examination the Chief Engineer of the Illinois waterway admitted that a reduction in the diversion to 1,000 second feet would not require any change in the plans or construction of the locks in the Illinois waterway to provide for a 9-foot waterway; that the only change that would be required would be a possible additional excavation in the channels or pools between the locks, because of the reduced slope in the pools, and that he could build a waterway based on the present plan with a 1,000 c. s. f. diversion which would accommodate boats drawing 9 feet. *Joint Abstract 56.* He estimated the increased cost of dredging the pools between the locks at $1,400,000.00, which is doubtless excessive. *Joint Abstract 56.*

Hence it is clear that no change in the design or construction of the Illinois locks or waterway would be required by the reduction of the diversion to 1,000 c. s. f. The Federal project on the Illinois River, up to the River and Harbor Act of 1927, provided for 7 feet. The project initiated in 1927 provides for 9 feet, which is the greatest

depth ever recommended for the Illinois River. *Joint Abstract 5. Master's Report 85.* This makes a connection with the channel of 6 feet from the mouth of the Illinois to St. Louis. The futility of contending that any change is required in the locks of the Illinois waterway is obvious.

The approval of plans for the Illinois waterway was conditioned that it "did not authorize diversion of water from Lake Michigan through the waterway." *Joint Abstract 51.* The plan appears to have been based on a flow of 6,000 c. s. f., of which 4167 was derived from the amount provided in the then existing permit to the Sanitary District and the balance from local flow. It is now stated, (although we think it wholly immaterial), that the balance was made up of 1395 c. s. f., being the domestic pumpage of Chicago, and 500 c. s. f., being the low water flow of the natural waterway along the so-called Illinois waterway. This seems very peculiar, in view of the fact that the plans for the Illinois waterway were submitted by the Chief Engineer of the Illinois waterway in 1919, whereas the figure 1395 c. s. f. is taken from the domestic pumpage of Chicago for 1926, and the same Chief Engineer has testified that the low water flow of the Des Plaines River is nil, instead of 500 c. s. f. *Master's Report 23. Joint Abstract 123.*

3.

The instant diversion is not in the interests of navigation on the Illinois River.

The Illinois River, from Utica to its mouth, flows through an alluvial plane for a distance of 233 miles, with a total fall of about 33 feet. *Joint Abstract 4.* It is easily dredged and channels obtained by dredging are relatively permanent. *Joint Abstract 4-5.*

The view that a diversion of 1,000 second feet is more than ample for any navigation requirements on the Illinois

River has been repeatedly stated in the various reports of the Boards of Engineers of the Federal Government who have reviewed that question. *Joint Abstract 40-44.* In the last report on Illinois River, transmitted to Congress, March 29, 1926, it is shown that if a diversion is utilized for navigation purposes, as distinguished from sewage disposal purposes, a 9-foot navigable channel can be obtained with a mean annual diversion of 1,000 second feet, either with or without locks. There are now, and have been for many years last past, 4 locks in the lower Illinois River. In the opinion of former Chief of Engineers, Bixby, the proper method of improving this section of the Illinois River for a 9-foot channel is by locks and dams, and no addition to the natural flow is required for that purpose. *Joint Abstract 5-6.* The latest expression of the War Department on this subject is the testimony of General Taylor before the Committee on Rivers and Harbors and the Commerce Committee of the United States Senate in 1926, wherein he states that 1,000 second feet diversion will provide for a 9-foot channel in the Illinois River. *Joint Abstract 35, 36.*

The only dissenting note is the testimony of Mr. Barnes, Chief Engineer of the Illinois waterway. Barnes, however, admits that with locks and dams a 9-foot channel could be provided in many years from Utica to the mouth of the Illinois without any water from Lake Michigan, and that there is no question but that with a diversion of 1,000 second feet locks equal in size to those proposed for the Illinois waterway could be operated, and a 9-foot channel equivalent in size and width to the channel of the proposed Illinois waterway could be obtained, although he questioned the economy of such a proceeding. *Joint Abstract 55.* His contention that additional locks and dams would be required is shown to be wholly unfounded by the latest re-

port of the Government Engineers on the Illinois River, where the plans, even with a diversion of 1,000 second feet provide for the removal of two or more of the four locks and dams already in the river. *Joint Abstract 37-38.* In this section of the Illinois River Barnes admits that according to the computations of the Government Engineers, who have studied the question, the current which would be produced by a 10,000 c. s. f. diversion with an open channel, would cause a great deal more loss in time to tows using the river than would be occasioned by four locks, although Barnes, of course, does not agree with them. *Joint Abstract 63.* Hence it is clear that a diversion of 1,000 second feet will provide for navigation with a 9-foot channel in the Illinois River. *Complainants' Exception XII. Master's Report 122.*

However, these questions with respect to the Illinois River are wholly immaterial. The State of Illinois has not been entrusted with the regulation of interstate commerce or of the navigable waters of the United States. The United States has not provided any diversion for navigation purposes on, or for the improvement of, the Illinois River. If and when the United States does undertake to appropriate any waters of the Great Lakes to navigation purposes on the Illinois River, it will be time enough to consider its rights and powers and the reasonableness of their exercise.

This observation is not only based upon sound law, but is supported by the most cogent, practical considerations. If the United States has the power to divert water from the Great Lakes to improve navigation on the Illinois River, and if the Congress should ever decide to exercise that power, it would do so not only as one clothed with the authority of the Federal government, but also restrained and guided by the responsibilities of the Federal govern-

ment, not only on the Illinois River, but to the great section of the nation bordering upon the Great Lakes system, which would sustain serious damage from any unreasonable appropriation of the waters of the lakes. It would not exercise that power either for the purposes of local sanitation and water-power or blinded by the local profits to be obtained by a large diversion without regard to the immensely greater damage flowing therefrom in the great Section of the Nation bordering on the Great Lakes. However, to permit one of the States of the union to divert such waters, with immense profits to itself from the use of the water for sanitation and power, (which profits are in direct proportion to the extent of the abstraction), without any responsibility to the great sections of the country injured thereby, is to place the other sections of the United States at the mercy of the selfish considerations of local interests. There can be no doubt but that if the Federal government has the power, and were to exercise the power, to divert water from the Great Lakes to improve navigation on the Illinois River, the quantity thus diverted for navigation purposes would be so small that there would be no complaint on the part of the Lake States or the Dominion of Canada. No diversion would be required during the closed season of navigation in winter. Low water is of short duration during the navigation season, and no diversion would be required at other times in any event.

This brings us to a consideration of several matters which we deem immaterial, but which it seems necessary to discuss, because they were urged before the Special Master and were covered in his report.

The Special Master quoted a statement from an early report of Colonel Judson to the effect that "with a diversion of less than 4167 c. s. f. the cost of a channel in the Illinois River, with or without dams, seemed almost pro-

hibitive" and further stated that without diversion from Lake Michigan, new locks and dams would have to be provided. *Complainants' Exceptions V, XI. Master's Report 120, 121.* The plans in the latest Government report on the improvement of the Illinois River not only do not provide for additional locks and dams with a diversion of 1,000 second feet, but on the contrary provide for the removal of two of the existing locks and dams. *Joint Abstract 37-38.* An examination of the Judson report will disclose that what the author had in mind was not the large cost of the improvement, as an abstract figure, but the doubtful economic advantage of the improvement when Illinois and the Sanitary District had appropriated all of the valuable waterpower. *Joint Abstract 117-118, paragraph 60.*

The Master found that the Federal project in the Illinois River *could* not have been maintained without a diversion of 8500 c. s. f., and that the old reference plane for Federal improvements on the Illinois River, based on the low water of 1879, had been from time to time *officially* changed to conform to existing low water as affected by the Chicago diversion. *Complainants' Exceptions VI and X. Master's Report 71, 120.* These questions will be discussed together because they are so intimately related.

The finding that the project depth in the Illinois River *could* not have been maintained with a diversion of less than 8500 c. s. f. is obviously based upon misapprehension of the testimony of witnesses Woermann and Fuller. These witnesses testified that under conditions as they actually existed, and considering the limited amount of work that was done in the Illinois River during this period, the project depth *would* not have been available without a diversion of 8500 c. s. f., and in fact testified that it was not available with that diversion until 1925. *Joint Abstract 15, 12.* These witnesses freely admitted that the project

depth *could* have been obtained without this diversion; that the original project of 1880 for the Illinois River was never completed; that of course no project would be expected to have its required depth without completion, or in the event of completion, to maintain its required depth without constant maintenance; and that the Illinois River was probably the easiest river in the United States in which to obtain and maintain depths by dredging. *Joint Abstract 13-14; 17-18.*

The testimony of these witnesses with respect to dredging operations on the Illinois River related only to the current expenditure of the annual appropriations for maintaining and continuing the improvements on the Illinois River, and had no relation to any change of reference plane. These annual programs for expenditure of current appropriations were merely sub-projects. See pages 41-42, *infra.* Assistant Civilian Engineers cannot change official reference planes of Federal projects. In fact, they admitted that the situation was merely that the Federal project had never been completed. *Joint Abstract 14.* Their testimony on such a question would be incompetent. However, either that these Assistant Engineers misunderstood the situation, or that (as complainants believe,) the Special Master misconstrued their testimony—if it formed any part of the basis of his finding with reference to the alleged change of the reference plane on the Illinois River,—is conclusively established by the fact that Colonel Schultz, the present Federal District Engineer at Chicago and the superior officer of the witnesses, Woermann and Fuller, testified that the present project on the Illinois River is based on the low water of 1879. *Trans. 588.*

The official reference or datum plane for Federal improvements has no direct relation to the water level in the channel under improvement. It is an imaginary plane, based either upon the elevation above sea level, or some

other mark or plane which has been definitely located. It is the plane from which project depths are measured in work done by the Federal government to obtain and maintain a navigable channel. All work is done with reference to this imaginary plane, regardless of whether the actual water level be above or below such plane. Thus the reference plane for improvements on Lake Michigan has been 579.6 feet above sea level. Federal improvements have been obtained and maintained at the project depth below that reference plane, regardless of the fact that in recent years Lake Michigan has been from a foot to a foot and a half below such reference plane. Hence where a Federal project has been completed it will have greater or less depth than the project depth, depending upon whether the current water level is above or below the Federal reference plane. The project for the Illinois River was adopted in 1880 with a reference plane of the low water of 1879, based upon a survey of that year. This continues to be the official reference plane for improvements on the Illinois River unless or until it is officially changed by competent authority.

The defense then introduced a series of letters between Assistant Civilian Engineers Fuller and Woermann and the District Engineer at Chicago, and some letters from the District Engineer at Chicago to the Chief of Engineers with reference to operations on the Illinois River. It is needless to point out that official reference planes cannot be changed by correspondence among subordinate Engineers in an engineering district. With reference to the letters from the District Engineer to the Chief of Engineers the argument of the defendants proceeds upon a misapprehension of their nature. These letters are set out in the Joint Abstract pages 18 to 28. To understand their significance, if any, it is necessary to consider the difference between a project and a sub-project. It is the constant

practice of Congress to adopt projects for the improvement of various waterways which are not immediately accomplished, both because of the unwillingness of Congress to provide the entire cost in a single year, and because of the physical impossibility of completing the whole of the work in a single year, if funds were available. Consequently Congress adopts a project and provides an appropriation less than sufficient to complete it. The District Engineer recommends how the funds thus provided may best be spent, and on the approval of the Chief of Engineers, such recommendation becomes a sub-project for the expenditure of the current appropriation under the Rivers and Harbors Act. Many of these letters from the Assistant Engineers to the District Engineer merely submit estimates for dredging for the information of the District Engineer in allocating the current appropriation available. An examination of all of the letters, which are from the District Engineer at Chicago to the Chief of Engineers, shows that they are merely sub-projects for the expenditure of a current appropriation under the Rivers and Harbors Act, which was for continuing the improvement on the Illinois River. *Joint Abstract 18-28.* Some of these letters stated that the existing project was set forth in the Annual Report of the Chief of Engineers. *Joint Abstract 23, 27.* In the Joint Abstract, pages 30-34, a condensation of the statements of the Illinois River project contained in the Annual Reports of the Chief of Engineers from 1890 to 1924, inclusive, and the statement of the project contained in the last report on the Illinois River transmitted to Congress March 29, 1926, are set forth. These all show that this project has been at all times based upon the low water of 1879. To show that this is not the result of overlooking the Chicago diversion, the Chief of Engineers appended a note to his statement of the project stating in the earlier years that the Chicago diversion had raised the low water plane, but

inasmuch as the quantity of water to be admitted was a matter of present litigation, it was impractical to ascertain what the low water plane would be, and in later years a note to the effect that inasmuch as the Chicago diversion was the subject of progressive reduction, it was impractical for the Board to ascertain what the future low water plane would be. *Joint Abstract 32, 34.* To these considerations should be added the testimony of the present District Engineer at Chicago page 40, *ante.*

These facts render it self-evident that the reference plane for improvements on the Illinois River was not changed officially or otherwise, following the admission of water from Lake Michigan through the Chicago Drainage Canal in 1900.

The Special Master found that under the Act of June 25, 1910 Congress appropriated $1,000,000 for the construction of a waterway from Lockport, Illinois, to the mouth of the Illinois River. *Master's Report 58 Complainants' Exception IV.* If this Act had any materiality, such materiality was removed by the fact that the appropriation could not be expended unless and until a project was submitted to and approved by Congress and that such appropriation was subsequently repealed by the Act of March 4, 1915 without any part thereof having been expended, or any work done thereon. *Joint Abstract 112.*

4.

The instant diversion has no relation and is of no value to navigation on the Mississippi River.

All evidence in relation to the Mississippi River was admitted over complainants' objection that none of the defendant states had any legal interest in the artificial enrichment of the Mississippi River, if any there was, by reason of the abstraction of the waters of the Great Lakes.

Joint Abstract 181. The whole question of the alleged effect of the diversion on navigable depths in the Mississippi River is immaterial in this case. None of the Federal projects since 1881 for the improvement of the Mississippi was ever based upon an increment from the Great Lakes, and the recently adopted project is not so based. *Gotwals, Joint Abstract, 96, 97.* It is obvious that neither the Permit of March 3, 1925, nor any other Permit issued by the Secretary of War, was ever issued in any degree whatever for the purpose of aiding or benefiting navigation on the Mississippi River or for any other purpose than assisting the Sanitary District of Chicago in the disposal of the sewage of that District. *Complainants' Exception XIV. Master's Report 125.* In Section V, pages 16 to 24, *infra,* complainants have shown that in none of the recommendations or reports of the Government Engineers on applications of the Sanitary District for permission to divert water from Lake Michigan, and in none of the decisions or permits or expressions of policy by the various Secretaries of War thereon was it ever suggested that said diversion was for the purpose of aiding, or was in fact, any aid to navigation on the Mississippi River. On the contrary, the question was solely one of a demand for a diversion for sewage disposal purposes which was uniformly deemed to be injurious to navigation. The conditions in the Permit of March 3, 1925, as amplified by the accompanying correspondence of the War Department and Department of State, and recommendations of the Federal Engineers provided, not for the continuance of this diversion in aid of navigation anywhere, but for its early reduction to the greatest possible extent to remove the damage to navigation created thereby.

However, since the Special Master in his report has stated that there was some benefit to navigation at low water in the Mississippi River by reason of the diversion,

although he was unable to evaluate it, and that it was permissible for the Secretary of War to conclude that the diversion was to some extent an aid to navigation in low water, it is necessary to discuss the pertinent evidence. *Master's Report 124. Complainants' Exception XIII.*

Complainants submit that the overwhelming preponderance of the evidence establishes that a diversion of 8500 c. s. f. from the Great Lakes is of no value to navigation on the Mississippi River. General Bixby brought to a consideration of this problem the benefit of over forty years of study and experience as a highly-trained technical expert on river and harbor work, with peculiarly intimate and valuable knowledge of the unusual characteristics of the Mississippi River, obtained by actual work thereon in the capacities of District Engineer in Charge of Operations, Chairman of Special Boards for Surveys thereon, President of the Mississippi River Commission, and general supervision as Chief of Engineers of the United States Army. In the light of his experience and qualifications his testimony is entitled to unusual weight. *Joint Abstract 4, 97.*

The peculiar hydraulics of the Mississippi River arise from the fact that it is a series of deep pools separated by bars which rise and fall with the stage of the river. *Bixby, Joint Abstract 98.* The natural depths over these bars were from three to five feet; and the navigation problem is to maintain a channel through the bars. A consideration of the relation between the rise and fall of the bars and the fluctuations in flow and velocity of the River readily demonstrates that a constant increment of 8500 c. s. f. is of no value to the Mississippi.

During the closed season of navigation the channels obtained the previous year remain good because the low flow and velocity at that time does not carry silt in sus-

pension, or roll material along the bottom; so that the project depths obtain in the navigation channels when navigation opens. As the navigation season opens in February, the river commences a gradual rise which continues until May or June. The corresponding increase in current is gradual and gentle so that not much material is carried in suspension or rolled along the bottom and lodged on the bars. Consequently the water rises faster than the bars, and greater depths than can be used obtain, although the silt is beginning to move and gradually fill in the cuts through the bars. *Joint Abstract 98-99.* During July and August both the Mississippi and Missouri Rivers have reached full stage. As the Missouri falls it tears away the water-soaked banks, as the receding waters remove their support, and carries annually about 400,000,000 cubic yards of material into the Mississippi River during July and August; so that the waters become saturated with suspended material, and large quantities are rolled along the bottom. The River now commences to fall rapidly, which causes a rapid reduction in the volume and velocity of the flow. Then the great quantities of material which were carried in suspension and rolled along the bottom with the higher velocity are deposited on the nearest bar, which causes the bars to rise very rapidly, so that at times bars show less than 8 feet of water when the water is 23 feet on the St. Louis gauge, the zero of which is several feet above the bottom of the navigation channel. Then the dredges make a cut through the bar which the River will ordinarily widen to the full channel width without further assistance. *Joint Abstract 99-100.* These channels will then ordinarily remain in good condition throughout the year unless there should be a big flood followed by a rapidly falling river, when the same trouble with formation of bars will occur again. *Joint Abstract 100.* The rapid fall in the river stage which causes the rapid formation of bars, means a

drop of from 6 inches to 1 foot in a day, which, at the stage when bars form, would mean a decrease in flow of from 20,000 to 30,000 c. s. f. *Joint Abstract 100-101.* The dredges cut a channel from 12 to 14 feet beneath the water surface. *Joint Abstract 94-95.* It is not any lack of water that causes trouble, but the rapid changes in flow and velocity which cause trouble through formation of bars. *Joint Abstract 100.* A constant increment of 10,000 c. s. f. does not make the channels through the bars last any longer, or any easier to cut. *Joint Abstract 101.* It would require an increment of 310,000 c. s. f. to provide a channel 9 feet deep in the Mississippi River without dredging and regularization. *Joint Abstract 101.* With dredging and regularization there is enough water without any increment, and it is of no value to navigation. The best navigation on the Mississippi is by all odds at low water. *Joint Abstract 103, 104.*

The correctness of the foregoing opinion of General Bixby was conclusively established by his cross examination when counsel, in an effort to show an effect from the Chicago diversion, asked General Bixby to explain statements in the annual reports of the Chief of Engineers showing that from St. Louis to Cairo there was a six-foot channel in 1903 with a low water stage of 3.5 feet at standard low water, while there was an 8-foot channel in 1904 with a low water stage in the river of .6 of a foot below standard low water. *Joint Abstract 105-106.* Of course the river stages themselves demonstrated that there was a better navigation channel in 1904 than in 1903, although the river was four feet higher in 1903, in agreement with General Bixby's testimony that low water produces the best navigation channels in the Mississippi; but it should be noted that the Chicago diversion in 1903, the year of the 6-foot channel, was 4971 c. s. f., while in 1904, the year of the 8-foot channel, it was 4793 c. s. f. *Joint Abstract 107.*

If navigable depths in the Mississippi River depend upon the Chicago diversion, then this illustration of defendants' counsel demonstrates that a *decrease* of 188 c. s. f. in the diversion *increased* the navigable depths 2 feet.

In addition to the foregoing comprehensive and conclusive exposition of this question by General Bixby, the fact that the Chicago diversion is not a factor in or of any benefit to navigation on the Mississippi is likewise shown in many Government Reports. *Joint Abstract 107-112.*

The defendants produced a number of witnesses in an effort to establish some value to navigation on the Mississippi by reason of the Chicago diversion. While their principal witness, Major Gotwals, had had no experience on river work, except from 1924 to 1926, he does not disagree materially with General Bixby. He states that the plan for the Mississippi River improvement is to contract the River to uniform widths with the hope of causing it to cut through the bars, though he does not believe that it would eliminate all dredging. *Joint Abstract 92.* Low water is not of very long duration during the navigation season. *Joint Abstract 93.* He agrees that the formation of the bars depends on the rate of fall of the river; that it is the fluctuations of the river and not the quantity of water which makes the trouble, and that if 10,000 c. s. f. (which is more than the Chicago diversion) were taken from the present flow, there would still be adequate water for navigation. *Joint Abstract 95.* Only once since 1872 has the flow into the river during the navigation season fallen as low as 40,000 c. s. f. *Joint Abstract 97.* Of course the addition of a constant increment does not affect the fluctuations in stage and velocity. Major Gotwals points out that the diversion does increase the flood hazards in the lower river. *Joint Abstract 96.*

The witness, Woermann, Assistant Civilian Engineer in the Chicago Engineering office, advanced the theory that

the rise in stage was reflected in navigable depths at low water; but when confronted with a conflicting report of his superior officer, stated that he would not say that such report was an error but that it was a conservative statement. *Joint Abstract 82-83.* He knew of no official report made by any member of the Corps of Engineers which would support his theory, and admitted that he had no data which was not in the hands of the various Boards of Engineers who had made the various official reports in the discharge of their official duties. He agreed that either dredging, or regularization, or both, were necessary to create a channel of 8 feet. *Joint Abstract 83-84.*

The defendants introduced the testimony of Berry, Barrett and Neyhe, who had operated tows or packets on the Mississippi River. With respect to their testimony it is sufficient to point out that at least since 1881 the Federal Government has been continuously improving the navigation channels of the Mississippi River, the effect of which improvements they innocently ascribe to the Chicago diversion. The utter worthlessness of their testimony is apparent in the following ways: Berry reported that his barges grounded in the summer or fall of 1900, but that on the next trip, taken about three weeks later, his barges, loaded to the same depth, did not ground, which he attributed to the Chicago diversion. *Joint Abstract 85.* In the first place the diversion was less than 3,000 c. s. f. in 1900, and in the second place the effect of the diversion for that year, if any, had been fully felt at the time of the trip when the barges grounded, some nine months after the diversion commenced. *Master's Report 72.* Barrett discovered the effect of the Chicago diversion in 1901 or 1902, on a trip where he claimed to find seven or eight feet of water in the channel up to Grafton and only three or three and one-half feet above Grafton. *Joint Abstract 86.* Hence his conclu-

sion is based upon an alleged difference of five feet of water immediately below the mouth of the Illinois River whereby he attributes an added depth of five feet to a diversion of approximately 4,000 c. s. f. *Master's Report 22.* The ridiculousness of this sort of testimony is apparent on its face. The difference, of course, was caused by the absence of the maintenance of any Federal improvement above Grafton. The observations of the witness Neyhe have the same defect. Their conclusions are no doubt in part due to the infirmity of memory, and in part to their ignorance of the effect of the constant work of the Government in improving the channels through the years.

The other defendants' witnesses were Ashburn, Brent and Randolph. The testimony of Ashburn was confined to the existence of a Federal barge line on the Mississippi. *Joint Abstract 64-65.* The testimony of Brent was chiefly for the purpose of identifying operating charts used by the witness Randolph. These operating charts purported to show groundings of barges and tugs of the barge service. Brent operated from an office in New Orleans and knew nothing of the depths to which the various barges were loaded, or the cause of the groundings. *Joint Abstract 65-73.* The cause, no doubt, was accurately stated by the defendants' witness, Gotwals, who pointed out that nearly all such groundings were due to the efforts of the navigators to keep as far as possible from the center of the navigation channel in order to avoid the currents, to poor judgment and to the use of boats with rudders missing and various other defects. *Joint Abstract 93-94.* Of course no navigator ever confesses to his superior that the grounding is the result of his incompetent navigation. His report always blames the grounding upon the failure of the Federal Government to maintain the channels.

However, the worthlessness of the data was conclusively demonstrated by the witness, Randolph. This witness

was not a graduate of any school of engineering; demonstrated no practical experience in river work; had never done any engineering work on the Mississippi River—his experience being confined to two or three boat rides—and his conclusions were based solely upon charts of operations of the Government barge line introduced by the witness Brent, and some other charts and graphs which had been theretofore issued in certain government reports. His conclusions were not based upon any personal experience or knowledge. *Joint Abstract 78.*

To demonstrate that his testimony is of no assistance in this matter it is only necessary to point out that in his illustration of his conclusions that a diversion helped navigable depths, he selected a grounding shown by the operating charts of the Mississippi Barge Line on September 21, 1922, where, according to these charts, the barge grounded with a stage of 5 feet on the St. Louis gauge, whereas the barge released itself and proceeded on its way at a stage of 4 feet on the St. Louis gauge. Hence the only result of his testimony was that in 1 foot less water the barge proceeded without obstruction, whereas it had been tied up with a stage 1 foot higher, and all within 24 hours. *Joint Abstract 79.*

Considering all of this testimony which related to the Mississippi, complainants submit that it is overwhelmingly established by the evidence of this case that 8500 c. s. f. from Lake Michigan is of no value to navigation on the Mississippi River. Certainly it cannot be said that the defendants, who have the burden of proof on this issue, have established any value to navigation on the Mississippi by reason of this diversion in the light of this testimony. Moreover, in connection with both the Mississippi and Illinos Rivers, it must be borne in mind that the period of so-called low water during the navigation season is of very short duration. Any diversion for that purpose would

necessarily be for a very short period of time each season, whereas the instant diversion continues throughout the year, whether it be in low water, or in time of flood, when any effect could not be other than disastrous.

5.

The disposal of the sewage of Chicago is not a navigation purpose.

The only navigation purpose for this diversion suggested by the Special Master is the prevention of the pollution of the Chicago River and adjacent Lake by the sewage of the Sanitary District. *Special Master's Report, 167-170.* The argument to this effect is: The Sanitary District produces or threatens to produce an illegal public nuisance by so polluting the water of the Chicago River and the adjacent part of Lake Michigan as to constitute an obstruction to navigation. *A fortiori* the Secretary of War may provide for the abatement of this illegal public nuisance by a Permit authorizing the removal of the navigable waters obstructed so as to create another obstruction to navigation, and such a procedure is a navigation purpose. This conclusion ignores the sequence of events. The purpose of such a Permit is to take care of the Chicago sewage and not to improve navigation in the Lake. The navigable capacity of the Lake is not improved thereby but is decreased—the only result has been that the sewage of Chicago has been taken care of at the expense of the navigable capacity.

The obstruction thus created by the Chicago nuisance is an illegal obstruction. Then if the Secretary's Permit is valid, he has substituted a legal obstruction to the navigable capacity of the waters for the purpose of relieving the Sanitary District of Chicago of the consequence of its illegal acts. It would not be contended that the Secretary of War

could authorize the Sanitary District of Chicago to tax Minnesota, Wisconsin, Ohio, Michigan, Pennsylvania, New York and Canada to remove a nuisance which it had illegally created. However, if the Secretary of War may authorize the Sanitary District to remove its illegal nuisance by a method which damages all of the complainant States in the ways, and to the extent herein found, with no right of complaint or redress on their part, the right of extraterritorial taxation on these States for the benefit of the disposal of the sewage of Chicago has been very effectively conferred in an indirect way.

VII.

THE SANITARY DISTRICT HAS KNOWINGLY AND INTENTIONALLY VIOLATED THE TERMS AND CONDITIONS OF ALL OF THE VARIOUS PERMITS ISSUED BY THE SECRETARIES OF WAR FROM APRIL 1, 1903 TO DATE.

The Permit of January 17, 1903 finally fixed the diversion from and after March 31, 1903 at 250,000 c. f. m., or 4167 c. s. f. *Master's Report 43.* The only Permits issued subsequent to that time and prior to the present Permit, were those of September 11, 1907 and June 30, 1910, which retained the same restrictions as to the quantity of diversion. *Master's Report 51, 59-60.* From 1903 to 1925 the Sanitary District greatly exceeded the limitation of this permit by diverting quantities of water which reached a maximum of well over twice the quantity provided by the Permit. *Master's Report 22-23.* During the whole of this time they asserted the right to take as much water as they pleased, regardless of the objections of the complainant States, the Dominion of Canada, and the Federal Government. *Joint Abstract 148, 151-152, 156.* In the Government suit the Sanitary District denied the right of the United States to limit the flow. *Master's Report 170.* Hence it is clear that from 1903 to 1925 the Sanitary District wilfully

violated all the Permits obtained from the Secretaries of War. *Complainants' Exception XXI.*

The Permit of March 3, 1925 limited the instantaneous maximum diversion to 11,000 c. s. f. *Master's Report 78.* The method of measuring the diversion provided in the Permit was defined in the recommendation of the District Engineer pursuant to which the Permit of March 3, 1925 was issued. This definition provided that the diversion should be measured by the flow at Lockport. *Joint Abstract p. 170, paragraph 4.* On November 16, 1905 a diversion of 13,415 c. s. f. was attained, and on September 13, 1926 a diversion of 12,765 was attained. *Joint Abstract 184.* While under the terms of the Permit the domestic pumpage of Chicago was not considered in measuring the mean annual average of 8500 c. f. s. provided by the Permit, this is not the fact with reference to the instantaneous maximum of 11,000 c. f. s. which was an absolute limit on peak flows granted solely to guard against reversal of the Chicago River in times of maximum storm flows of 10,000 c. s. f. under the claims of the Chicago Sanitary District. See *Report of District Engineer, paragraph 6. Joint Abstract 171-172.* Even if the domestic pumpage were added to the figure of 11,000, both of these flows would violate the limitations of the Permit on instantaneous flow. The witness Ramey, Assistant Chief Engineer of the Sanitary District, attempted to avoid the consequence of these facts by advancing the theory that the instantaneous flow was not to be measured at Lockport. *Joint Abstract 184.* If it were not to be measured at Lockport, it would not be measured anywhere; and that contention is contrary to the official recommendations and interpretations upon which the Permit is based.

The first condition of the Permit of March 3, 1925 was: "There shall be no unreasonable interference with navigation by the work herein authorized." *Master's Report 78.*

For a discussion of the interference with navigation which has been occasioned by this diversion, complainants refer to Section III (1) pages 9 to 12, *ante*. The evidence and findings conclusively establish that this diversion has seriously obstructed the navigable capacity of waters having a shoreline of 8300 miles with 400 harbors, in addition to the innumerable ports, landings and shallow waters used for fishing, boating and allied purposes. It has substantially diminished the value and utility of the great fleet of vessels operating on the Great Lakes. It has diminished substantially the value and utility of all of the commercial facilities provided at Federal and local, private and municipal expense along the 8300 miles of shoreline of this waterway, and has substantially burdened the industries and commercial interests of States having a population of approximately 40,000,000 people. This is in addition to the damages to property and other rights not related to the use of these waters for navigation purposes. If this does not constitute an unreasonable interference with navigation, it would be difficult in the extreme to imagine what would have to be done to create an unreasonable interference. So that complainants contend that it is conclusively established that the Sanitary District operating under the Permit of March 3, 1925, has caused an unreasonable interference to navigation and has therefore voided the Permit. There has been inflicted a substantial injury to nearly 44% of the total waterborne commerce of the United States, amounting in 1925 to over 210,000,000 cargo tons of freight with a domestic or coastwise tonnage exceeding the total coastwise trade of all of the ocean ports of the United States by more than 30,000,000 cargo tons and a foreign commerce constituting 13.8% of the total foreign commerce of the United States. *Joint Abstract 185-186.*

Condition 8 of the Permit requires that the City of Chicago should adopt a plan for metering at least 90% of

its water service and provides for the execution of that program at the average rate of 10% per annum thereafter. *Master's Report 79.* Since the close of the hearing before the Special Master and the final submission of this case to him on June 3, 1927, the City of Chicago, acting through its duly elected officers, has refused further to carry out Condition No. 8 of the Permit of March 3, 1925, by refusing to install further meters to measure the domestic water supply of the City, and by refusing to further read meters theretofore installed under the provisions of the Ordinance of the City of Chicago pursuant to the requirements of Condition No. 8 of said Permit. Obviously these facts, occurring since the close of the testimony, cannot appear in the record taken before the Special Master, but complainants are confident that defendants will not deny the truth of these facts.

Hence, complainants submit that the Sanitary District has violated the conditions of the Permit of March 3, 1925;

1. By exceeding the limitation on instantaneous maximum diversion.

2. By creating an unreasonable interference to navigation in violation of Condition 1 of the Permit, and

3. By the City of Chicago refusing to provide for the metering of its domestic water service as required by Condition 8 of the Permit.

Complainants' Exception XXIX.

Under the construction of the Permit adopted by the War Department and the State Department, the violation of Condition 8 with respect to the metering of the water supply leaves no limit upon the quantity of water which may be diverted, other than the voluntary moderation of Chicago. Past experience compels the complainants to regard that as a very illusory safeguard.

VIII.

THE QUESTION OF COMPENSATION WORKS ON THE GREAT LAKES IS NOT INVOLVED IN THIS CASE; AND THEIR EFFECTIVENESS IS NOT ESTABLISHED.

Evidence with respect to compensating works on the Great Lakes was received over the objection of the complainants. *Joint Abstract 183. Complainants' Exception XV.*

Complainants submit that all evidence on compensating works in this case is incompetent, irrelevant and immaterial, because:

(1) the construction of compensating works in the Great Lakes and their connecting waters is dependent upon the consent and authorization of the Congress of the United States and solely under its control and not within the control of either the complainants or defendants herein, and when or if the Congress of the United States will ever act with reference to said compensating works is not known

(2) construction of compensating works in the Great Lakes and their connecting waters is dependent upon the consent and joint action of the Kingdom of Great Britain and when or if the government of the Kingdom of Great Britain will ever act with reference to or consent to the construction of compensating works in said waters is not within the control of the complainants or defendants herein and is not known

(3) the complainants are not required as a matter of law to construct compensating works for the purpose of minimizing the damages inflicted upon them by the creation and maintenance of the nuisance involved herein by the defendants.

If the question of compensating works were material the Special Master should have found that some of the damages caused by the abstraction of these waters could

not be mitigated or minimized by the construction of compensating works. *Joint Abstract 152, 183. Master's Report 72, 65.*

The evidence received relates to the possibility of minimizing the damages caused by the Chicago diversion, by the construction of compensating works. If there were no Chicago diversion, compensating works, if found feasible, would improve conditions on the Great Lakes in general. There is no proof, and it is not at all certain, that sufficient compensation could be provided without the creation of obstructive currents to provide the best possible conditions on the Lakes, and in addition thereto, overcome the lowering caused by the Chicago diversion. This is especially true with reference to the probable deepening of harbors and channels incident to the construction of the Great Lawrence waterway. Hence, if compensating works were material in this case, the Special Master should have found that conditions would be better with the construction of compensating works and no Chicago diversion than conditions would be with the construction of compensating works and the continuation of the Chicago diversion, and that the complainant States and their peoples are entitled to the full benefits which might flow from the construction of compensating works in the Great Lakes free from diminution by reason of the nuisance and abstraction created by the defendants.

IX.

THE EFFECT OF CONTINUING THE ABSTRACTION.

The effect of continuing this abstraction will be to perpetuate for all time these great and serious injuries to the complainant states and their peoples. The effect of recognizing the Permit of March 3, 1925 as a valid authority for the abstraction of these waters and the infliction

of these injuries upon the complainant States and their peoples will be to permit not only the continuance of the present damages, but an obvious and substantial increase in their extent. Further such a holding subjects the complainant States to future damage, limited only by the voluntary moderation of the defendants. The illusory character of any hopes so based is shown by Chicago's treatment of the subject in the past. Should this abstraction be determined to be legal and one of which neither the States nor their peoples can complain, then every other State and municipality on the Great Lakes in the United States or Canada must have the same right; and the end of the recognition of such a pretentious claim cannot be foreseen. If a single raid upon this great natural resource does not destroy its usefulness for all time, a multiplicity of such raids will do so.

X.

THE EFFECT OF ABATING THE ABSTRACTION.

The abatement of this abstraction will compel the City of Chicago and the Sanitary District to take care of their sewage disposal and their water supply problems at their own expense, instead of at the expense of the property, States and peoples other than those of the State of Illinois littoral to the Great Lakes, in the same way in which such problems must be met and such expense must be borne by every other State and municipality in the United States. On the other hand, Chicago and Illinois will share in the great benefits which will flow from a restoration of lake levels.

THE LAW.

On page 140 of the report of the Special Master, the questions of law are stated to be seven, as follows:

> (1) Whether the complainants present a justiciable controversy and have the requisite interest to entitle them to invoke the jurisdiction of the Court; and if so,
>
> (2) Whether the State of Illinois had the right, as against the complainants, to divert the waters of Lake Michigan in the manner and for the purposes shown, without the consent of the United States; and, if not,
>
> (3) Whether Congress has the authority to control the diversion, that is, in its regulation to determine whether and to what extent the diversion should be permitted; and if so,
>
> (4) Whether Congress has given the permission; and, if it has not directly,
>
> (5) Whether the Secretary of War had authority under the Act of March 3, 1899, to regulate the diversion; and if so,
>
> (6) Whether the permit of March 3, 1925, and its conditions, are valid; and, finally,
>
> (7) As to the provisions of the decree which should be entered, in the light of the determination of these questions.

We propose to discuss these questions in the order stated by the Special Master.

Before, however, entering upon a detailed discussion of these questions separately, it may be helpful to attempt a brief and condensed statement of the facts which present the problem.

The City of Chicago was a village in 1840. It is now the second city in population in the United States, having an area of 191 square miles with 24 miles of frontage

on Lake Michigan. From the first its sewers emptied into Lake Michigan and its water supply was drawn therefrom. Its population grew with unprecedented rapidity and about the year 1880 it became apparent that the pollution of the waters of the lake by sewage discharge imperiled the city's water supply. Public agitation on this subject led to the employment of eminent sanitary engineers to devise a plan to overcome this evil and in 1887 a report was made proposing three plans, of which one was the excavation of a canal across the Continental Divide which would reverse the current of the Chicago River and create of it and the Sanitary Canal a vast open sewer emptying into the Des Plaines River at Lockport and carrying the sewage of the city *via* the Des Plaines River and Illinois River into the Mississippi. Dilution of the sewage was to be effected by the abstraction of water from Lake Michigan. This plan was recommended as being economical and, as makeweights in its favor, the sanitary engineers pointed out that the canal when constructed would provide a waterway and would also render available a valuable water power at Lockport twice as large as the Mississippi at Minneapolis.

The Legislature of Illinois by the Act of May 28, 1889, authorized the creation of sanitary districts to provide for drainage and empowered such districts to improve navigable or other waterways. This Act required that any channel constructed for the discharge of sewage outside of the district should be of sufficient capacity to contain a continuous flow of at least 200 cubic feet per minute for each 1000 of population served by the district and, with special reference to the water of Lake Michigan, that if any channel was constructed which abstracted them or caused their flow into the Des Plaines or Illinois Rivers, such channel should have the capacity to contain not less than 300,000 cubic feet of water per minute, with a further pro-

viso that if the population drained into such channel at any time exceed 1,500,000, the channel should be of such size as to contain a continuous flow of not less than 20,000 cubic feet of water per minute for each 100,000 of population and under certain conditions looked to a continuous flow in the channel of 600,000 cubic feet of water per minute, as being the ultimate abstraction of water from Lake Michigan for sewage purposes by such district.

Pursuant to the enabling act of Illinois, the Sanitary District of Chicago was organized in 1890, originally embracing an area of 185 square miles but by later acts this area has been increased until it now comprises 438 square miles, extending from the Illinois state line on the south and east to the northern boundary of Cook County, thus embracing the metropolitan area of Chicago which consists of a total of fifty-four cities, towns and villages.

The authorities of the Sanitary District proceeded to construct the principal canal, which extends from the west fork of the south branch of the Chicago River to the Des Plaines River near Lockport, a distance of about 28 miles. At Lockport controlling locks were built with 7 sluice gates, each 30 feet wide, and a moveable dam, but no locks by which any vessel could be lowered into the Des Plaines River, a fall of about 41 feet. The flow in the canal was maintained by the operation of the sluice gates. The construction of this work was begun in 1892 and the completed canal was opened on the 17th day of January 1900.

All of the foregoing was done by the State of Illinois and, under its authority, by the Sanitary District of Chicago, without the consent of the Government of the United States and without the consent of any of the states, or of the Dominion of Canada, bordering upon the Great Lakes, except that in 1896 upon the application of the Sanitary District, the Secretary of War authorized certain

modifications in the cross section of the Chicago River with the reservation that the permit did not constitute an approval of the plans of the Sanitary District, and in May of 1899 a permit issued by the Secretary of War temporarily authorized the opening of the channel and the reversal of the flow of the Chicago River under very definite reservations.

By the authority of a later Act of the Legislature of Illinois (Act of May 14, 1903, Illinois Laws, 1903, page 113) the corporate limits of the Sanitary District were increased and additional powers given it and by 1907, under authority of this Act, the main channel had been extended 11,000 feet so as to concentrate the fall for power purposes at the present power house site at Lockport, where the waters were discharged into a non-navigable tailrace until 1910, when a small lock was provided for the first time at the Southwest end of the Drainage Canal. *Master's Report 19.*

This lock connected with the old Illinois and Michigan Canal and had no relation to the so-called deep waterway, and little if any water diverted from Lake Michigan was needed for its operation. The amendment to the Constitution of Illinois under which the so-called deep waterway project has been proposed was passed in 1908 but the first legislation under it was not passed until 1915.

Various permits and modifications of permits were issued by the War Department from time to time, which will be discussed later. Except for these permits of the Secretary of War, there is no action by Congress or by the Legislature of any State or country bordering on the Great Lakes System, which authorizes or consents to the action taken by the Sanitary District under the authority of the Legislature of the State of Illinois, or waives or compromises any right which such riparian States may have in the premises.

The natural outlet of the Great Lakes is through the St. Lawrence River to the Atlantic Ocean, and the level of the Great Lakes in the state of nature is controlled by the outlet from Lake Erie through the Niagara River into Lake Ontario. The Chicago Drainage Canal opened a new outlet by carrying the water of the Great Lakes across the Continental Divide in a volume twice as great as that of the Mississippi at Minneapolis. The effect of this was not at first fully apparent but it soon became clear that the level of the entire Great Lakes System, except Lake Superior which is confined at the Sault St. Marie River, was permanently lowered. The effect of this lowering has now been stabilized and the Master finds *(Master's Report, page 104)* that a diversion of 8500 second feet at Chicago lowers the levels of Lakes Michigan and Huron six inches and the levels of Lakes Erie and Ontario five inches, and the evidence shows that this lowering extends in the St. Lawrence River to Montreal and thence in diminishing degrees to Quebec. *Master's Report, page 98.*

During all these years from 1900, when the Sanitary Canal was opened, to 1925 there was imposed upon the Sanitary District by the several permits of the Secretaries of War the maximum limitation of 4167 cubic second feet of permitted withdrawal of water from Lake Michigan, but until the decision by this Court of the case of *Sanitary District vs. Chicago,* 266 U. S. 405, the Sanitary District of Chicago and the State of Illinois denied the authority of the United States to limit these withdrawals of water from Lake Michigan, and from 1908 to 1925, against the protest of the United States and in defiance of the limitations sought to be imposed by the Secretaries of War in their permits, continuously withdrew about twice as much water as the maximum allowed under the permits, so that at least one half of the damage done by the Sanitary District is not only wholly unauthorized but was done deliberately in defiance of the authority of the United States.

The damage done by the Sanitary District is insusceptible of brief statement. Vast and extensive works of the Government of the United States for the improvement of navigation, even more costly local and private works in the one hundred harbors on the Great Lakes have all been rendered less useful and, therefore, less valuable. The water borne commerce of the Great Lakes, which is greater in tonnage than the aggregate Atlantic Seaboard and Gulf commerce of the country, has been damaged by this injury to the channels and the injury thus caused primarily to the steel industry, upon which America's supremacy rests, spreads like a grease stain through all the subsidiary and finishing steel industries in the great industrial civilizations which have been built up around and depend upon the economies of lake transportation. In addition to this, private property and public property on the Lakes, improved with reference to the normal levels of these waters, have been damaged, both by being rendered less valuable and less convenient and also by exposures and the necessity for reconstruction to adapt them to the lower stage of the water.

The Master's Report does not undertake to estimate by any standard the amount of this damage, but it does find the damage actual and substantial and points out impressively the character and wide extent of destruction of public and private property thus wrought.

We stand then in the presence of a vast injury inflicted by a State upon other States and their citizens, definitely proved and affirmatively found by the Master. It is also found that the injured States have neither consented to the injury nor waived their rights, and the question to be determined is whether wrongs so obvious and so insupportable are left without remedy by the system which federates the states into a union for the purpose of

"insuring domestic tranquillity and promoting the general welfare." If the State of Illinois has the right to do this thing and the complainant States have no redress, it ought to be possible to find the basis of the right on the one hand and the reason for the paralysis on the other.

It is apparent that if the States of the Union were independent nations, Illinois could proceed safely only upon treaties between her and the other states affected by her acts. Is the Constitution such a treaty?

It is apparent that had Illinois undertaken so to injure the other riparian States, in the absence of such a treaty, there would have been a resort to defensive measures by the injured States. Possible defensive measures, used in similar controversies between independent States, range all the way from non-intercourse acts to war. Indeed non-intercourse, privately organized, has been frequently urged, in this very case, as a means of arousing Chicago, through her commercial interests, to a realization of the wrong inflicted upon her neighbors. But in a public way both non-intercourse and war between States is impossible. The right of self defense, the right to protect these great interests by traditional weapons has been surrendered. Does this leave the states defenseless?

In surrendering the right of self defense have the States also surrendered *all* the rights which independent states would naturally defend? If not, what are the limits of the surrender and what processes of vindication remain for those not surrendered?

To these questions this Court has repeatedly given answers, thus establishing principles, if not a code, of interstate international law. We believe that the Special Master has erred in the application of these principles in the case at bar and proceed, with deep respect for the learning of the Special Master, to analyze his conclusions in the light of the decided cases.

I.

"WHETHER THE COMPLAINANTS PRESENT A JUSTICIABLE CONTROVERSY AND HAVE THE REQUISITE INTEREST TO ENTITLE THEM TO INVOKE THE JURISDICTION OF THE COURT."

The Special Master's conclusion upon this question is:

> "I am unable to conclude that the rights of the complainant states with respect to the diversion at Chicago of the waters of Lake Michigan, directly resulting in an appreciable diminution of the waters of the Great Lakes and connecting channels, to the alleged injury of the commercial and navigation interests of these states and their people, are any less susceptible of judicial determination than the rights of Kansas, Wyoming and North Dakota with respect to the waters of interstate streams." *(Page 143 Master's Report)*
>
> "On this question of jurisdiction, I find no difficulty, so far as the interest of the complainant states is concerned." *(Page 144 Master's Report)*

In short, the Special Master sustains the jurisdiction both on the ground of the character of the case, as constituting a controversy between states, and as to the interest of the complainants.

When this matter was heard before this Court on the motions to dismiss, it was disposed of by a Per Curiam memorandum 270 U. S. 634 on the authority of *Kansas vs. Colorado,* 185 U. S. 125, 147.

By Section 2 of Article III of the Constitution of the United States, it is provided that,

> "The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, * * * to Controversies between two or more states;—between a State and Citizens of another State; * * *
>
> "In all Cases * * * in which a State shall be Party, the supreme Court shall have original Juris-

diction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make."

The history of the foregoing provision has been frequently examined by this Court. Perhaps the fullest statement of it is found in the opinion of Mr. Justice Shiras in *Missouri vs. Illinois and the Sanitary District of Chicago,* 180 U. S. 208, 219, *et seq.* From this history it is clear that the Constitutional Convention foresaw, as inevitable, controversies between the states and rejected alike resorts to force and political agencies for their composition. The jurisdiction of this Court was, therefore, defined as covering all *cases* in law and equity arising under the Constitution and the laws of the United States, and in addition thereto, as a larger and different class, to *controversies* between two or more States. In the opinion of Chief Justice Marshall, *Cohens vs. Virginia,* 6 Wheaton 264, the jurisdiction of this Court, under this donation of power, depended entirely on the character of the parties that is to say, no matter what the cause of the controversy, if the parties to it were States of the Union, this Court has jurisdiction, but it has come to be clear that there may be controversies between states so non-judicial and political in character as to be insusceptible of judicial determination. The remark of Mr. Justice Bradley in *Hans vs. Louisiana,* 140 U. S. 1, indicates that the court is unwilling to restrict controversies between States to the traditional limits of actions at law and suits in equity, so that the rule may now fairly be regarded to be that whenever a controversy arises between states which can be disposed of by the application of rules of law, principles of international law, the language of the Constitution itself, or those obvious principles of morality and good conscience by which courts of equity have regulated the rights

of individuals, the controversy comes within the jurisdiction of this Court.

In the language of Mr. Justice Bradley, "The Constitution has made some things justiciable which were not known as such at the common law."

In effect this Court, when dealing with controversies between States sits as an adjourned session of the Constitutional Convention. The court has no jurisdiction of purely political questions but it is the conservator of the great purposes for which the Constitution was ordained, and its function is to apply the spirit of that Constitution to the relations between the states in order that the Union itself may be preserved. Happily, no case can be found in which the court has sought to extend its jurisdiction into purely political controversies. Happily, no case can be found in which the court has declined to exercise its jurisdiction in the case of a controversy between states which lends itself to treatment by analogies drawn from any of the procedures of judicial or arbitral tribunals in the administration of private or public rights.

The cases cited by the Special Master fully support the conclusions reached by him, but they do not exhaust the subject.

The cases in this Court between States from 1789 now number about one hundred and cover a great variety of controversies, ranging from boundary disputes and the diversion of water from interstate streams to regulations imposing restraints on interstate commerce to the prejudice of the people of other states. Throughout this entire body of cases the principle is firm that the jurisdiction of this Court is the alternative to that resort to force and its palliatives with which independent States enforce their sovereign rights and protect the interests of their people.

Controversies between States are all great controversies. The dignity of the parties is alway impressive and the judgments of this Court in such cases illustrate at once the dignity and solemnity of the jurisdiction.

Kansas vs. Colorado, 185 U. S. 125. Kansas brought suit against Colorado in the Supreme Court of the United States to prevent Colorado from depriving Kansas of the water of a river accustomed to flow through and across her territory, with the consequent destruction of her property and of the property of her citizens, to the injury of their health and comfort. Colorado demurred to the bill. The court overruled the demurrer and gave Colorado an opportunity to answer the bill. In the opinion by Mr. Chief Justice Fuller the historical summary set forth in *Missouri vs. Illinois,* 180 U. S. 208, is referred to with approval as showing jurisdiction in the Supreme Court in controversies between States. On page 142 it is said:

> "As will be perceived, the court there ruled that the mere fact that a state had no pecuniary interest in the controversy would not defeat the original jurisdiction of this court which might be invoked by the state as *parens patriae,* trustee, guardian or representative of all or a considerable portion of its citizens, and that the threatened pollution of the waters of a river flowing between states under the authority of one of them, thereby putting the health and comfort of the citizens of the other in jeopardy, presented a cause of action justiciable under the Constitution."

In support of the demurrer Colorado urged her sovereign right to deal as she saw fit with waters within her own state boundaries; that the moral obligations of a State to observe the demands of comity cannot be made the subject of a controversy between states; that the bill was indefinite and defective in various ways, but the court brushed all these objections aside, saying that:

"Without subjecting the bill to minute criticism, we think its averments sufficient to present questions as to the power of one State of the Union to wholly deprive another of the water of a river arising in the former, and, by nature, flowing into and through the latter, and that therefore this court, speaking broadly, has jurisdiction."

On page 146 the Chief Justice defines the attitude of the Supreme Court in such controversies, saying,

"Sitting, as it were, as an international as well as a domestic tribunal, we apply Federal law, State law and international law, as the exigencies of the particular case may demand, and we are unwilling in this case to proceed on the mere technical admissions made by the demurrer, nor do we regard it as necessary, whatever imperfections a close analysis of the pending bill may disclose, to compel its amendment at this stage of the litigation."

The Court, therefore, directed an answer to be filed and indicated the character of proof which it felt important to be produced.

Kansas vs. Colorado, 206 U. S. 46. This case, disposed of on demurrer in the 185th U. S., came before the court on the proofs for final action. In the meantime the United States filed an intervening petition, claiming the right to control the waters of the river to aid in the reclamation of arid lands. There was no contention that any proposed or threatened action affected navigability in the stream, since the stream was not navigable, in fact. Counsel for the United States admitted that there was no express power in the Constitution whereby the United States had any control over the water for irrigation purposes, but relied upon the general inherent power of the sovereign and urged that acts of Congress with regard to reclamation be regarded as dominant over the right of both States, Kansas and Colorado. As to this branch of the case, the court

held that the power of Congress over streams was limited to the preservation or improvement of their navigability and that, except as to this Federal power, full control over these waters is vested in the States. The intervening petition of the United States was therefore dismissed without prejudice to any action which it might thereafter see fit to take in respect to the use of the waters in question for maintaining it, improving the navigability of the river.

Coming now to the controversy between the two States, the opinion by Mr. Justice Brewer recites at great length the basis of the Supreme Court's jurisdiction in original actions between States, reviewing all the earlier cases. On page 97 it is said:

> "One cardinal rule underlying all the relations of the States to each other is that of equality of right. Each State stands on the same level with all the rest. It can impose its own legislation on no one of the others and is bound to yield its own views to none. Yet whenever, as in the case of *Missouri v. Illinois,* 180 U. S. 208, the action of one State reaches through the agency of natural laws, into the territory of another State, the question of the extent and the limitations of the rights of the two States becomes a matter of justiciable dispute between them and this court is called upon to settle that dispute in such a way as will recognize the equal rights of both and at the same time establish justice between them. In other words, through these successive disputes and decisions, this court is practically building up what may not improperly be called interstate common law."

The case contains a discussion of the rights of upper and lower proprietors on flowing streams and denies the right of a proprietor materially to interfere with the equal rights of others to the benefits of the water in its natural state.

Georgia v. Tennessee Copper Company, 206 U. S. 230. This is a suit brought by the State of Georgia against the

Tennessee Copper Company, a citizen of Tennessee, to abate the nuisance caused by fumes from the Tennessee Copper Company discharged over Georgia Territory. The bill alleges that the consequence of the discharge of these fumes is a wholesale destruction of forests, orchards and crops in five counties of the State of Georgia. On page 237, Mr. Justice Holmes in the opinion says that the amount of property directly owned by the State in the territory alleged to be affected is negligible, but that this is a suit by a State for an injury to it in its capacity of quasi-sovereign.

> "In that capacity the State has an interest independent of and behind the titles of its citizens in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air."***
>
> "When the States by their union made the forcible abatement of outside nuisances impossible to each, they did not thereby agree to submit to whatever might be done. They did not renounce the possibility of making reasonable demands on the ground of their still remaining quasi-sovereign interests and the alternative to force is a suit in this court. * * *
>
> "It is a fair and reasonable demand on the part of a sovereign that air over its territory shall not be polluted on a great scale by a sulphurous acid gas, that the forests on its mountains, be they better or worse, and whatever domestic destruction they have suffered should not further be destroyed or threatened by the act of persons beyond its control, that the crops and orchards on its hills should not be endangered from the same source. If every such demand is to be enforced this must be. * * *"

North Dakota v. Minnesota, 263 U. S. 365. In this case North Dakota had a controversy with the State of Minnesota with regard to a change made by Minnesota in the method of draining surface waters from lands within

her borders whereby the flow of an interstate stream was increased greatly beyond its natural capacity, thus throwing water on farms in the State of North Dakota. The jurisdiction of the Supreme Court in such a controversy was questioned by Minnesota, but in the opinion by Chief Justice Taft the jurisdiction is sustained.

The question is of especial interest because it reviews the previous decisions of the court as follows:

> "The jurisdiction and procedure of this Court in controversies between States of the Union differ from those which it pursues in suits between private parties. This grows out of the history of the creation of the power in that it was conferred by the Constitution as a substitute for the diplomatic settlement of controversies between sovereigns and a possible resort to force. The jurisdiction is therefore limited generally to disputes which, between States entirely independent, might be properly the subject of diplomatic adjustment. They must be suits 'by a State for an injury to it in its capacity of quasi-sovereign. In that capacity the State has an interest independent of and behind the title of its citizens, in all the earth and air within its domain.' 'When the States by their union made the forcible abatement of outside nuisances impossible to each, they did not thereby agree to submit to whatever might be done. They did not renounce the possibility of making reasonable demands on the ground of their still remaining quasi-sovereign interests; and the alternative to force is a suit in this court.' *Georgia v. Tennessee Copper Co.*, 206 U. S. 230, 237. In accord with this principle, this Court has entertained a suit by one State to enjoin the deposit by another State, in an interstate stream, of drainage containing noxious typhoid germs because dangerous to the health of the inhabitants of the former. *Missouri v. Illinois,* 180 U. S. 208, 241; s. c. 200 U. S. 496, 518. It has assumed jurisdiction to hear and determine a bill to restrain one State from a diversion of water from an interstate stream by which the lands of a State lower down on the

stream may be deprived of the use of its water for irrigation in alleged violation of the right of the lower State. *Kansas v. Colorado,* 185 U. S. 125, 141, 143; s. c. 206 U. S. 46, 95. In *Wyoming v. Colorado,* 259 U. S. 419, 464, it granted relief to one State to prevent another from diverting water from an interstate stream to the injury of rights acquired through prior appropriations of the water by land owners of the former State under the doctrine of appropriation recognized and administered in both States. In *Georgia v. Tennessee Copper Co., supra,* it enjoined in behalf of a State the generation and spread of noxious fumes by a factory in another State because it was a public nuisance in destroying crops and forests within the borders of the former State. In *Pennsylvania v. West Virginia,* 262 U. S. 553, 592, at the suit of one State, this Court has enjoined another State from enforcing its statute by which the flow of natural gas in interstate commerce from the latter State was forbidden, to the threatened loss and suffering of the people of the suing State who had become dependent for comfort and health upon its use. It needs no argument in the light of these authorities, to reach the conclusion that, where one State, by a change in its method of draining water from lands within its border, increases the flow into an interstate stream, so that its natural capacity is greatly exceeded and the water is thrown upon the farms of another State, the latter State has such an interest as quasi-sovereign in the comfort, health and prosperity of its farms owners that resort may be had to this Court for relief. It is the creation of a public nuisance of simple type for which a State may properly ask an injunction.

"In such action by one State against another, the burden on the complainant State of sustaining the allegations of its complaint is much greater than that imposed upon a complainant in an ordinary suit between private parties. 'Before this court can be moved to exercise its extraordinary power under the Constitution to control the conduct of one State at the suit

of another, the threatened invasion of rights must be of serious magnitude and it must be established by clear and convincing evidence.' '' *New York v. New Jersey,* 256 U. S. 296, 309; *Missouri v. Illinois,* 200 U. S. 496. 521.

The foregoing cases are conclusive upon both branches of this inquiry. In addition to them but without further analysis we cite to the Court *Pennsylvania v. The Wheeling Bridge Company,* 13 Howard 518; *Wyoming v. Colorado,* 259 U. S. 419; *New York v. New Jersey,* 256 U. S. 296, *Pennsylvania v. West Virginia,* 262 U. S. 553; *Hans v. Louisiana,* 134 U. S. 1.

II.

''WHETHER THE STATE OF ILLINOIS HAD THE RIGHT, AS AGAINST THE COMPLAINANTS, TO DIVERT THE WATERS OF LAKE MICHIGAN IN THE MANNER AND FOR THE PURPOSES SHOWN, WITHOUT THE CONSENT OF THE UNITED STATES.''

To this question the answer of the Special Master is that ''the action of the State of Illinois was and is unlawful unless validly permitted by Congress directly or through the action of the Secretary of War.'' (Report of Special Master, page 148)

For this conclusion the Special Master rests primarily upon the decision by this Court in *Sanitary District v. United States,* 266 U. S. 405, and it does support the answer, but the question and answer completely understate the issue in the case at bar.

Sanitary District v. United States was a suit by the Government to restrain the Sanitary District from abstracting water from Lake Michigan through the Sanitary Canal in excess of 4167 cubic second feet, that being the maximum limit permitted in the permit issued by the Secretary of War. The case presented no question as to the

rights of any of the States now complainant. The only States other than Illinois concerned in that action were the so-called River States, allowed to file briefs *amici curiae,* which attempted to assert a right to an increase in the artificial flow from Lake Michigan in the supposed interest of an enlargement of the navigable depths of the Mississippi River. This claim of right on the part of the River States was summarily disposed of by this Court, the interest being said not to be a right at all but a mere consideration which the River States might address to Congress to induce modification of the law under which the Secretary of War's permit was issued. This Court added the further significant sentence, "It is doubtful at least whether the Secretary was authorized to consider the remote interests of the Mississippi States or the sanitary needs of Chicago."

In *Sanitary District v. United States* the facts as to the construction and operation of the Sanitary Canal were all shown, together with the successive temporary permits of the Secretary of War under which the current of the Chicago River had been reversed. All the legislation of the State of Illinois and of Congress in the premises was in the record, and the relief asked by the Government was that the Sanitary District be enjoined from diverting water from Lake Michigan in excess of 250,000 cubic feet per minute. It was conceded that an act of Congress would be required to authorize such diversion and it was contended that the Secretary of War had construed the Act of March 2, 1827, as affirmatively authorizing the diversion. It was frankly claimed on behalf of the Sanitary District that the Illinois Act of May 29, 1889, authorized and directed the abstraction of water from Lake Michigan by the Sanitary District under the police power and for the purpose of disposing of the sewage of the District. Further the Sanitary District denied the authority of the Secretary

of War to make any findings or conclusions of fact and asserted that the whole matter was appropriate for a decision by Congress, as a legislative matter, but inappropriate for attempted limits by the Secretary of War as an administrative matter.

On behalf of the Government it was asserted that all obstructions to the navigable capacity of interstate waters without authority from Congress have always been held unlawful; that under the compact contained in Article 4 of the Ordinance of 1787, Illinois had no right to interfere with or decrease the navigable capacity of Lake Michigan or any other of the Great Lakes; that under Section 10 of the Act of 1899, an act of Congress is necessary to authorize the creation of an obstruction to the navigable capacity of navigable waters of the United States and that the authority of the Secretary of War on the recommendation of the Chief of Engineers covers only modifications which do not amount to an obstruction. (See Abstracts of Briefs, 266 U. S. 406-423)

As the only relief asked was an injunction sought by the United States to restrain diversion of water in excess of 250,000 feet per minute, the only question the court was called upon to consider was whether the United States had the right, in the interest of navigation, to limit such withdrawals. In other words, whether the United States had the veto power upon such withdrawals, whether the United States could affirmatively authorize such withdrawals, *in invitum* the reserved rights of the riparian states, was not presented by the record or necessary to be considered to dispose of the case. In the opinion of the court it is said,

> "The United States is asserting its sovereign power to regulate commerce and to control the navigable waters within its jurisdiction. It has a standing in this suit not only to remove obstruction to interstate and foreign commerce, the main ground, which we will deal with last, but also to carry out treaty obligations

to a foreign power bordering upon some of the Lakes concerned, and, it may be, also on the footing of an ultimate sovereign interest in the Lakes. * * *

"The main ground is the authority of the United States to remove obstructions to interstate and foreign commerce. There is no question that this power is superior to that of the States to provide for the welfare or necessities of their inhabitants."

In the case at bar, the parties, the rights and the relief sought are different. Here sister States are seeking to vindicate reserved rights. In *Sanitary District v. United States* the Government was seeking to protect a delegated trust.

It is important to remember what the Sanitary District has done and the purpose for which it has been done. This record conclusively shows that the Sanitary Canal was built by the Sanitary District for sanitary purposes. The legislation of the State of Illinois creating the Sanitary District originated in a sanitary need and was addressed to the improvement of a sanitary condition. The Sanitary Canal was built and operated with sluice gates at Lockport and with no connection making through navigation possible from 1900 to 1910. The lock installed in 1910 at Lockport, a mere incident as a power development, was a small connection to the old Illinois and Michigan Canal, making little if any demand upon the Great Lakes System for water for navigation purposes and it was not until 1915 that the first legislation was passed looking to the use of the diverted water for deep water navigation purposes. Even now no such navigation use is being made so that this Sanitary Canal has been abstracting water from Lake Michigan for 28 years, and has caused all the damage complained of, for sanitary and power purposes.

This Court has twice examined this situation. In *Missouri v. Illinois and the Sanitary District of Chicago,*

180 U. S. 208, the question was whether the State of Missouri could protect itself against an alleged nuisance created by the sewage discharged through the Des Plaines and Illinois Rivers into the Mississippi above St. Louis, it being contended by Missouri that a substantial impairment of the health and prosperity of the towns and cities of that State was being caused by the pollution of the Mississippi River and that the entire State was injuriously affected thereby. The case was, therefore, the right of a State to restrain a public nuisance. Later in the same case (*200 U. S. 496*) the facts having been ascertained, the court dismissed the bill for the reason that the existence of the nuisance and its injurious effect had not been proved, but the dismissal was without prejudice. Throughout this examination of the questions the canal was treated as a sanitary agency. Again in *United States v. the Sanitary District,* 266 U. S. 405, the court had the facts before it and held that the canal was primarily a means of disposing of the sewage of the City of Chicago.

As we shall point out more fully later, the evidence in this case shows that all the applications of the Sanitary District to the Secretary of War have been based upon the sanitary needs of Chicago and the permits of the Secretary of War, including the permit now in effect have been reluctantly issued in deference to Chicago's sanitary needs and have in no case either been applied for or granted in furtherance of navigation.

The Supreme Court of Illinois has been called upon to interpret the legislation of that State and has held that the canal was built as a sewage disposal plant under the police power of the State and not for navigation purposes.

In *Beidler, et al. v. Sanitary District of Chicago,* 211 Ill. 628, decided October 24, 1904, the facts were that long prior to 1900 the South Branch Dock Company, owning a

large tract of land fronting on the South branch of the Chicago River, excavated and constructed a number of canals through its property extending north from the river and connected therewith, and then so subdivided their property that each lot fronted either on the river or one of the canals. Sixty-six of these lots were sold to Jacob Beidler, plaintiff in the action. The lots were used as coal, lumber and other docks. The Sanitary District of Chicago in 1900 connected its drainage channel with the South Branch of the Chicago River, reversing the flow of that stream and diminishing the supply of water in the river, and in each of the canals, with the effect of lowering the water six feet. Beidler sued the Sanitary District for the consequent damage.

The court held that the excavation of the original canals had created riparian rights appurtenant to the lots fronting on the canals which were of like character and sanctity with the riparian rights appurtenant to lands fronting on the river in its natural state; that the lowering of the water in the canals by the action of the Drainage District constituted a taking of the property of the plaintiff, for which damages by way of compensation could be recovered.

It was urged on behalf of the Sanitary District that its action in constructing the Sanitary canal was in furtherance of navigation and that the dominant easement of the public in these waters for navigation purposes made any damages like those suffered by the plaintiff merely incidental to the regulation of the stream for navigation purposes, and therefore not a basis for recovery. In the course of the opinion the court says:

> "The right of the public in this stream is the right to navigate it. No right can be acquired by prescription which will interfere with this right of

navigation. It does not appear from the declaration in this case that filling these canals with water from the river interfered in any wise with navigation. In view of the length of the canals and the amount of water necessarily required to fill them to the level of the river, the diversion of the waters to the canals was an appropriation of the water adverse to the rights of other owners of abutting property, and, as the appropriation did not violate the public right of navigation, the owner of each lot fronting upon either of these canals acquired by prescription the same riparian rights in the waters therein that he would have had if the canals had been natural waterways, and, under the authorities above cited, his title extended to the middle of the canal.

"Section 13 of Article 2 of the Constitution of the state provides, 'Private property shall not be taken or damaged for public use without just compensation' and the question is here presented whether the damages sustained by appellants are within this language of the Constitution. * * *

"Now, if the owners of the various lots abutting on the canals in question have acquired by prescription the same right to the enjoyment of the use of the water in these canals at the ordinary level that they would have, had these canals been natural and not artificial waterways, it is apparent that it is their right to have the water flow into these canals to the same height that it did prior to the opening of the drainage district channel.

"It is urged in opposition to this view that the title of the riparian owner is subordinate to such use of the water as may be consistent with or demanded by the public right of navigation, and that the rights of the plaintiffs are subject to the paramount authority of the state to make any and all improvements to facilitate navigation; and it is argued that, as section 24 of the sanitary district act declares that the drainage channel is a navigable stream, consequently, re-

ducing the level of the water in the Chicago river for the purpose of filling the sanitary channel was in the interest and for the purpose of navigation, and that, as the rights of plaintiffs were subject to the rights of the public to make any and all improvements to facilitate navigation, the damages inflicted are not of a character for which recovery may be had. To this there are two answers: While it is true that the rights of the plaintiffs are subject to the public right of navigation, and that damages resulting in consequence of any work by the public for the purpose of improving navigation are damages for which no recovery can be had, still it must be manifest that the right of navigation and the right of improvement for purposes of navigation, which are superior to the rights of plaintiffs, must be the right to navigate the South Branch of the Chicago River and to improve navigation in that branch, or some stream or lake whose waters naturally flow into that branch, or into which that branch naturally flows. Here the waters were taken and their general levels reduced for the purpose of making navigable an artificial channel, and not for the purpose of facilitating the navigation of the South Branch of the Chicago River, or any stream or body of water naturally emptying into it, or any stream or lake into which it naturally empties.

"Again, it is evident, from an examination of the act for the creation of sanitary districts, that the primary and principal purpose of their creation under the statute is to provide for the preservation of the public health by improving the facilities for the final disposition of sewage and by supplying pure water. The fact that a navigable waterway may be created is a mere incident, and not one of the purposes for which a sanitary district is created."

Thus we have the authoritative determination of the Supreme Court of Illinois to the effect that the purpose of the canal was sanitary and that the claim that the facilities of navigation were improved is inadmissible for

the reason, both that such facilities for navigation are entirely incidental and also that they comprise no part of the improvement of natural waterways but rather the creation of an artificial waterway, so that the subjection of estates affected by the improvement to the incidental damage resulting from the improvement of navigable streams would not apply. The damage was not done in the improvement of the navigation of the Chicago River but in the creation of a waterway against the course of nature in a place where no navigable waterway existed in a state of nature and as to which the damaged estates were under no implied obligation to sustain without compensation any incidental damage.

It is definitely established in the United States, and particularly in those States which formerly constituted a part of the Northwest Territory, that the ownership of and dominion and sovereignity over lands under the navigable waters of the Great Lakes, within the limits of several States, belong to the respective States in which they are found. This was held in *Illinois Central Railroad Company v. Illinois,* 146 U. S. 387. See also *Shively v. Bolby,* 152 U. S. 1. This ownership includes not merely the land under the water but the water over the land and has been described as a full proprietory ownership subject to Federal control over navigation. *Port of Seattle v. Oregon, etc.,* 255 U. S. 56. But it is equally well settled that this full proprietorship is in a trust capacity.

The Supreme Courts of the States themselves have recognized and declared this trust. Thus in *State of Ohio v. The Cleveland and Pittsburgh Railroad Company, et al.,* 94 O. S. 61, it is said,

> "The title of land under the waters of Lake Erie within the limits of the State of Ohio is in the State, as trustee, for the benefit of the people, for public

uses for which it may be adapted. * * * The ownership of the waters of Lake Erie and of the land under them within the state is a matter of public concern. The trust with which they are held is Governmental and the state, as trustee for the people, can not by acquiescence or otherwise abandon the trust property or permit a diversion of it to private uses different from the object for which the trust was created."

In re *Crawford County Levee and Drainage District,* 182 Wisc. 404. This was a proceeding to establish a Drainage District in Winnesheik bottoms adjacent to the Mississippi. The effect of the proposed drainage would be to enclose certain sloughs, render innavigable certain ponds theretofore navigated by small craft, and cause the discontinuance of a ferry between one of the large sloughs and the river. The Secretary of War had issued a permit in the usual form authorizing the work, but the court held that the work as carried out would destroy navigable waters of the State and that they could not be lawfully destroyed through a drainage scheme. In its opinion the court refers to the Ordinance of 1787 as creating a trust in the State for the preservation of the navigable waters and says,

"From our acceptance of the provisions referred to of the Ordinance of 1787 it follows that it is not a question of state policy as to whether or not we shall preserve inviolate our navigable waters. We are by organic law compelled so to do. *Economy L. & P. Co. v. U. S.,* 256 U. S. 113, 41 Sup. Ct. 409. That we have scrupulously endeavored to carry out the mandate of the organic law and of the legislative enactments quoted, the decisions of this court abundantly show. We are the trustee of the navigable waters within our borders for the benefit not only of the people of our own state but for the benefit of the people of the whole United States. And this trust we cannot diminish or abrogate by any act of our own. We accepted the

trusteeship in our organic law as a condition of becoming a state, and we must execute it according to its intent and purpose until released by action other than that of this state. *Economy L. & P. v. U. S.,* 256 U. S. 113, 41 Sup. Ct. 409. Neither the state nor this court has anything to do with the wisdom of the policy of keeping inviolate our navigable waters. The supreme law so directs, and its mandate not only justifies but compels the continuance of the policy."

That these lands and waters are thus owned by the States upon a trust, has been held by this Court in *Illinois Central Railroad v. Illinois,* 146 U. S. 387, and the character of this trust is stated in the opinion of the court at page 452 and the following, as follows:

"That the State holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the State holds title to soils under tide water, by the common law, we have already shown, and that title necessarily carries with it control over the waters above them whenever the lands are subjected to use. But it is a title different in character from that which the State holds in lands intended for sale. It is different from the title which the United States hold in the public lands which are open to pre-emption and sale. It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties. The interest of the people in the navigation of the waters and in commerce over them may be improved in many instances by the erection of wharves, docks and piers therein, for which purpose the State may grant parcels of the submerged lands; and, so long as their disposition is made for such purpose, no valid objections can be made to the grants. It is grants of parcels of lands under navigable waters, that may afford foundation for wharves, piers, docks and other structures in aid of commerce, and grants of parcels

which, being occupied, do not substantially impair the public interest in the lands and waters remaining, that are chiefly considered and sustained in the adjudged cases as a valid exercise of legislative power consistently with the trust to the public upon which such lands are held by the State. But that is a very different doctrine from the one which would sanction the abdication of the general control of the State over lands under the navigable waters of an entire harbor or bay, or of a sea or lake. Such abdication is not consistent with the exercise of that trust which requires the government of the State to preserve such waters for the use of the public. The trust devolving upon the State for the public, and which can only be discharged by the management and control of property in which the public has an interest, cannot be relinquished by a transfer of the property. The control of the State for the purposes of the trust can never be lost, except as to such parcels as are used in promoting the interests of the public therein, or can be disposed of without any substantial impairment of the public interest in the lands and waters remaining. It is only by observing the distinction between a grant of such parcels for the improvement of the public interest, or which when occupied do not substantially impair the public interest in the lands and waters remaining, and a grant of the whole property in which the public is interested, that the language of the adjudged cases can be reconciled. * * * A grant of all the lands under the navigable waters of a State has never been adjudged to be within the legislative power; and any attempted grant of the kind would be held, if not absolutely void on its face, as subject to revocation. The State can no more abdicate its trust over property in which the whole people are interested like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in

what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace."

It is then established that the States bordering on the Great Lakes own the waters thereof and the lands under them, upon a solemn trust to preserve those waters in their natural condition, or improved in accordance with their natural condition, in trust for the benefit of the people of the state. This trust is not passive merely and is not exhausted by imposing a limitation upon the State against granting rights in derogation of it, but is an active trust and calls upon the State to defend the trust property against encroachments and diminutions, so that the complainant states in these actions are here as trustees seeking to preserve the navigable capacity of these waters and to preserve the natural benefits of these waters to the people of the respective States and to the littoral owners in the States, whose rights are injuriously affected by the diversion at Chicago. It is beyond question that the State of Wisconsin would have the right to prevent a citizen of Wisconsin from diminishing the navigable capacity of Lake Michigan to the injury of the interests of the State and of littoral owners in the State. It would be the duty of the State of Wisconsin to prohibit any such action within its borders. The same duty and the same right obtain as to each other riparian State of the Great Lakes waterway, and the question, therefore, is whether these complainant States have the right, through this Court, to protect this trust property against injury at the hands of the State of Illinois, it being clear that each of the complainant States has both the right and the duty to protect the trust property against such an injury within its own borders.

The Special Master in his answer to question of law Number One has, as we have seen, held affirmatively that the interests of the complainant States affected by the ac-

tion of the Sanitary District are of such character as to invoke the jurisdiction of this Court, and that the interests of the complainants are shown by the record to have been substantially injured by the action of the Sanitary District (Master's Report, page 143).

Again the Master says:

"On this question of jurisdiction, I find no difficulty so far as the interest of the complainant States is concerned. If Missouri and New York could maintain suits to prevent the pollution of their adjacent waters, if Kansas, Wyoming and North Dakota were entitled to invoke the jurisdiction with respect to their rights in interstate streams; if Georgia could bring suit to prevent injury caused by the discharge of noxious gases by a Tennessee corporation across the border and into her territory, on the ground of injuries to the interests of the State and her people; it would seem that the complainant States in this case have similar interests and enjoy the same right. In *Missouri v. Illinois,* 180 U. S. 241, the Court said that suits brought by individuals, each for personal injuries threatened or received, would be a wholly inadequate remedy. Substantial impairment of the health and prosperity of the towns and cities of the States situated on the Mississippi River, including its commercial metropolis, would seriously affect the entire State. In *Georgia v. Tennessee Copper Company,* 206 U. S. p. 237, it was said that the suit was 'by a State for an injury to it in its capacity of quasi-sovereign. In that capacity, the State has an interest independent of and behind the title of its citizens, in all the earth and air within its domain.' I should say the same as to water.

"In *Pennsylvania v. West Virginia,* 262 U. S. p. 592, it was said that the withdrawal of the natural gas from the interstate stream was 'a matter of grave public concern in which the State, as the representative of the public, has an interest apart from that of the individuals affected.'"

In his consideration of the second question of law, the Special Master, after stating his reliance upon *Sanitary District of Chicago v. United States,* says:

> "Moreover, it is unnecessary to consider what right the State of Illinois would have had to create the diversion in the absence of prohibition by Congress, for if Congress has the power to prohibit, it has effectively prohibited action of this sort save on compliance with specified requirements." (Master's Report, page 147)

It must, however, be clear that if the complainant States have the interests necessary to sustain the jurisdiction of this Court in this case and those interests have been substantially injured as held by the Master, then the State of Illinois could have no right to divert the waters of Lake Michigan in the manner and for the purpose shown unless it derives that right from either the consent of the injured States, assuming that it could be lawfully given, or the affirmative authority of the United States, if the United States has the power to give such authority and has given it.

The complainants, of course, do not question the power of the United States under the commerce clause of the Constitution to regulate interstate commerce, nor do they question that their ownership and control of navigable waters within their boundaries are subject to Federal control over navigation, *Port of Seattle v. Oregon, etc.,* 255 U. S. 56, but we regard it as demonstrated, by the consistent holdings of this Court, that in the absence of power in the United States, affirmatively exercised, to authorize this diversion, the complainant States have the right in this Court to relief which will prohibit the injury which they are now sustaining at the hands of Illinois to their trust estate in the navigable waters within their borders.

As a matter of fact, passing by for the moment all questions with regard to the rights of the Federal Government, this Court has definitely settled the rights of the States among themselves with regard to the waters of interstate streams. The three cases of *Kansas v. Colorado,* 185 U. S. 125; *Kansas v. Colorado,* 206 U. S. 46; and *Wyoming v. Colorado,* 259 U. S. 419, establish as between adjoining States their relative rights in accordance with right and equity and in harmony with the constitutional principles of state equality. Thus in *Wyoming v. Colorado, supra,* it is said,

> "The decision in *Kansas v. Colorado,* 206 U. S. 46, was a pioneer in its field. On some of the questions presented it was intended to be and is comprehensive, and on others it was intended to be within narrower limits, * * * On full consideration it was broadly determined that a controversy between two States over the diversion and use of waters of a stream passing from one to the other makes a matter for investigation and determination by this court in the exercise of its original jurisdiction, and also that the upper State on such a stream does not have such ownership or control of the waters flowing therein as entitles her to divert and use them regardless of any injury or prejudice to the rights of the lower State in the stream."

These cases are authority for the general proposition that the upper proprietor may not destroy the right of the lower proprietor by diverting the water of the stream and preventing its flow in its natural state. The case at bar, of course, presents this situation in its most magnified form. The Sanitary District and the State of Illinois are by this record shown not only to divert and withhold all the waters which in the state of nature were contributed by the Chicago and Calumet Rivers to Lake Michigan and

so the general Great Lakes waterway, but they abstract and divert from Lake Michigan water contributed by other States in a quantity twenty times as great as the State of Illinois in the state of nature contributed to that waterway.

This leads us to the discussion of the third question of law propounded by the Special Master.

III.

"WHETHER CONGRESS HAS THE AUTHORITY TO CONTROL THE DIVERSION, THAT IS, IN ITS REGULATION TO DETERMINE WHETHER AND TO WHAT EXTENT THE DIVERSION SHOULD BE PERMITTED."

As we have seen, the complainant States own the lands and waters of the Great Lakes in trust for the public and have both the right and duty to protect this trust unless their right is destroyed and their duty absolved by the intervention of the dominant power of the United States, duly exercised. We have further seen that the ownership and dominion of the complainant States is subject to the control of navigation by the United States. The question here to be considered, therefore, is whether, under the commerce clause of the Constitution, the control of navigation empowers the United States affirmatively to authorize the destruction of these natural navigable waters,

1. In the interest of local sanitation, or

2. For the creation of an artificial waterway, which the Government may determine to be, in its opinion, more advantageous than the natural waterway.

It must be clear that if the Government can authorize the abstraction of water from the Great Lakes for sanitation at Chicago, it can both authorize the abstraction of all the water which Chicago needs for that purpose, as the limits of the Sanitary District are further extended and the

growth of its population expands its need, and also that it can authorize similar abstractions for the sanitary needs of all the other populations along the shores of the waterway. That this threatens the destruction of the waterway is obvious, as the value of the waterway depends upon the available depths and each reduction of those depths is *pro tanto* a destruction of the waterway. It must be equally clear that if the Government has the power to authorize the abstraction of water from the Great Lakes to make this thirty miles of drainage canal navigable, it must have the power to authorize similar abstractions to the extent necessary to create other artificial waterways. Nor is the illustration fanciful. There is already local demand being created for a new artificial waterway which will tap Lake Erie, empty its water into the Wabash, and thus make another artificial waterway, in competition with the drainage canal, for the Great Lakes to the Gulf deep waterway route. We are, of course, only at the beginning of the plans which will be made if it be established that the Government has power to transfer the natural advantages of the Great Lakes waterway to the less favored sections of the country, and opportunities are abundant in both the United States and Canada along the six thousand miles of shore line on the Great Lakes waterway, excluding Lake Superior.

On page 149 of the Special Master's Report, the question now under consideration is restated with reference to five grounds assigned by the complainants. We consider these grounds in the same order.

1.

"That the diversion constitutes the taking of complainants' property without due process of law and without just compensation in violation of the Fifth Amendment."

In his discussion of this question, the Special Master holds that the States have sovereign and proprietory rights over the navigable waters and the lands underlying them, within their boundaries, subject to the powers surrendered to the National Government; and that the States admitted to the Union subsequent to the original thirteen were admitted as equal States and have the same rights as those States with respect to navigable waters and the land under such waters, within their respective jurisdiction. *Port of Seattle v. Oregon & Washington Railroad Co.*, 255 U. S. 56; *Shively v. Bowlby*, 152 U. S. 1. It is therefore important to see what powers have been surrendered to the general Government. The statement in the Port of Seattle case (page 63) is that,

> "the right of the United States in the navigable waters within the several states is limited to the control thereof for purposes of navigation."

In *United States v. Holt State Bank, et al.*, 270 U. S. 49, the question arose as to the title to the bed of Mud Lake in Minnesota, a navigable waterway which had been emptied by a drainage scheme under the authority of the State of Minnesota and also with the assent of the Federal Government. It is important to note that this destruction of a navigable water had been carried out under the authority of a law of Minnesota, and that the Government of the United States merely gave its assent, that is, declined to exercise its veto power. As bearing upon the whole subject, it is also important to note that the assent of the Government of the United States was not attempted to be given by a mere permit of the Secretary of War, but was

given by a special act of Congress passed for the purpose. *Act of May 20, 1908, c. 181, 35 Stat. 169.* In its opinion the court defines the respective rights of the State and of Congress as follows:

> "It is settled law in this country that lands underlying navigable waters within a state belong to the state in its sovereign capacity and may be used and disposed of as it may elect, subject to the paramount power of Congress to control such waters for the purposes of navigation in commerce among the states and with foreign nations, * * *" (Page 54).

Throughout the cases in this Court, without exception, the distinction has been preserved between the rights of the States on the one hand, and the power of the general Government on the other. The power of the general Government is such power as has been surrendered to it by the States. The rights of the States are all the rights which have not been surrendered to the general Government. The language of the surrender is found in Section 8 of Article I of the Constitution,

> "The Congress shall have power * * * to regulate commerce with foreign nations and among the several states and with the Indian tribes."

This language must, of course, be interpreted in the light of the great dogma of constitutional interpretation, that,

> "If the end be legitimate, and within the scope of the Constitution, all the means which are appropriate, which are plainly adapted to that end, and which are not prohibited, may constitutionally be employed to carry it into effect." *McCulloch v. Maryland,* 4 Wheat. 316.

To this must be added the observation that the extent of the power given to Congress in this or in any other clause of Section 8 must be determined not only by the immediate language of the grant but by the limitations, if

any, found elsewhere in the Constitution. The great constitutional guarantees were ordained to restrain, sometimes state action and sometimes Federal action, in the preservation of rights which the people were not yet ready to surrender.

Let us then see what the rights of the States are with regard to these waters and the lands under them.

We have already seen in general phrase that the States "have the ownership and dominion" or in the phrase of the Master, the States "have sovereign and proprietory rights over the navigable waters and the land under them."

The interest of the complaining States is a full proprietary interest as upon a public trust. The derivation of this title and its character has been traced by this Court in a series of cases beginning with, *Martin v. Wadell,* 16 Peters 367; See also *Barney v. Koekuk,* 94 U. S. 324; *Pollard's Lessee v. Hagen,* 3 Howard 212; *The Genessee Chief,* 12 Howard 443; *Illinois Central Railroad v. Illinois,* 146 U. S. 387; *Shively v. Bowlby,* 152 U. S. 1; *St. Anthony's Falls Power Company v. St. Paul,* 168 U. S. 349.

The nature and extent of this proprietorship and the duty imposed upon the State as trustee has been frequently examined and declared by this Court, thus in *Kansas v. Colorado,* 206 U. S. 46, a suit was brought by Kansas against Colorado and certain corporations organized under its laws to restrain them from diverting the water of the Arkansas River for the irrigation of lands of Colorado, thereby preventing the natural and customary flow of the river into Kansas. The United States filed an intervening petition claiming a right to control the water of the river to aid in the reclamation of arid lands, but not claiming that the diversion of the water tended to diminish the navigability of the river. The intervening petition of the United States was dismissed on the ground that while Congress

has general legislative jurisdiction over the territories and may control the flow of water in their streams, it has no right to control waters within the limits of States, except its control over navigable waters, and that full control of these waters is, subject to the exception named, vested in the State.

In *Hudson County Water Company v. McCarter,* 209 U. S. 349, it was held on the authority of *Kansas v. Colorado,* 185 U. S. 125, and *Georgia v. Tennessee Copper Company,* 206 U. S. 230, that the State, as quasi-sovereign and representative of the interests of the public, has a standing in court to protect the atmosphere and the water and the forests within its territory, irrespective of the assent or dissent of the private owners immediately concerned and that *a State has a constitutional power to insist that its natural advantages remain unimpaired* and is not dependent upon any reason for its will so to do. In the exercise of this power the State may prohibit diversion of the waters of its important streams to points outside its boundaries.

In State of *North Dakota v. State of Minnesota,* 263 U. S. 361, it is held that the ownership and duty of the State are such that where a sister State, by changing its method of drainage, increases the flow of an interstate stream so that water is thrown upon the farms of another State, the latter State has such an interest, as quasi-sovereign, in the comfort, health and prosperity of her farm owners that relief by injunction may be had upon application to this Court against the State causing the injury. In this holding, this Court adopts the doctrine established in the state courts that one owning land on a watercourse has rights of use limited by the equal rights of his neighbors, and applies this principle of private law to the conflicting public rights of independent States. The effect of

this holding is that in addition to its sovereign right within its own borders, the State, as trustee, is the repository and defender of the private rights of its citizens and is under obligation to represent and vindicate those rights when they are invaded by the action of a State which is beyond the reach of individual applications for redress. *Pennsylvania v. Wheeling Bridge Company,* 13 Howard 518; *Pennsylvania v. West Virginia,* 262 U. S. 553; *Georgia v. Tennessee Copper Company,* 206 U. S. 230.

From these cases and the great body of decided law of which they are merely an illustrative part, it is clear that the States have the combined capacity of political sovereignty and proprietorship, and that in both of these capacities they have the rights and duties of independent nations, in the protection of their own political interests and the public and private interests of their citizens, which belong to independent nations except to the extent that they have limited this right by their concessions in the Constitution.

This subject is fully discussed and decided as to its general principles in *Georgia v. Tennessee Copper Company,* 206 U. S. 231, where it is said,

> "When the States by their union made the forcible abatement of outside nuisances impossible to each, they did not thereby agree to submit to whatever might be done. They did not renounce the possibility of making reasonable demands on the ground of their still remaining quasi-sovereign interests; and the alternative to force is a suit in this court.
>
> "* * * If the State has a case at all, it is somewhat more certainly entitled to specific relief than a private party might be. It is not lightly to be required to give up quasi-sovereign rights for pay; and, apart from the difficulty of valuing such rights in money, if that be its choice it may insist that an infraction of them shall be stopped. The States by entering the

Union did not sink to the position of private owners subject to one system of private laws. This court has not quite the same freedom to balance the harm that will be done by an injunction against that of which the plaintiff complains, that it would have in deciding between two subjects of a single political power. Without excluding the considerations that equity always takes into account, we cannot give the weight that was given them in argument to a comparison between the damage threatened to the plaintiff and the calamity of a possible stop to the defendants' business * * *."

A specially interpretative consideration, affecting States carved out of the Northwest Territory, arises from the provisions of Article 4 of the Ordinance of 1787. This Ordinance was promulgated by the Congress of the Confederation prior to the taking effect of the Constitution of 1789. The Ordinance was passed on the 13th day of July 1787, the Constitution was signed by the members of the Convention on the 17th day of September in the same year. But the Ordinance itself declared "the navigable waters leading into the Mississippi and the St. Lawrence and the carrying places between them shall be common highways and forever free". This clause has been held to impose upon the States constituted out of the Northwest Territory a limitation upon their sovereignty and proprietorship of navigable waters within their limits. By it they are made guardians of these navigable waters and may not injure or destroy their navigability. *In Re Crawford County L. & D. District,* 182 Wis. 404; *Economy Light and Power Company v. United States,* 256 U. S. 113. The purpose of this Ordinance and of the Constitution, prepared at the same time and in the same atmosphere of public intention and purpose, was to declare for all times the preservation inviolate of the natural waterways of the country. The intensity of this purpose can only be appre-

ciated if we recall that these great enactments were made half a century before the building of the first railroad, by men who knew no other great arteries of trade and commerce but navigable waters, and who lived in a civilization which was extending itself westward from the sea coast by following and building cities upon the banks of navigable streams. With such thoughts in mind, it is not possible to think that the Fathers on the one hand restrained the sovereign and practically independent colonies from sacrificing navigable waters within their boundaries, and on the other donated to a general Government about to be created, the power to destroy those navigable waters. The language of the Constitution which makes the surrender to the general Government is general. It is the power to regulate commerce among the several States. It leaves in the States all the power not in conflict with the power given to Congress and not inconsistent with the means which Congress may find appropriate in the exercise of its power. But wide as this power of regulation may be, under the doctrine of *Gibbons v. Ogden,* 9 Wheat. 1, it can hardly be contended that it is wide enough to authorize Congress to destroy the things it is authorized to regulate in order to create something else it prefers to regulate. This Court has held from the beginning that Congress has the right to regulate navigable waters. Until now no one has ever suggested that, as a means adapted to the exercise of its power of regulation, Congress has the power to declare a stretch of dry land thirty miles long, extending over the Continental Divide, to be a navigable stream and make its declaration good by affirmatively authorizing the destruction of a natural navigable water in order to transfer its quality of navigability to the artificial structure.

The Fifth Amendment is clearly a limitation upon the power of Congress under Section 8 of Article I of the Constitution.

In *Monongahela Navigation Company v. United States,* 148 U. S. 312, it is said,

> "But like the other powers granted to Congress by the Constitution, the power to regulate commerce is subject to all the limitations imposed by such instrument, and among them is that of the Fifth Amendment, we have heretofore quoted. Congress has supreme control over the regulation of commerce, but if, in exercising that supreme control, it deems it necessary to take private property, then it must proceed subject to the limitations imposed by this Fifth Amendment and can take only on payment of just compensation. The power to regulate commerce is not given in any broader terms than that to establish post offices and post roads; but, if Congress wishes to take private property upon which to build a post office, it must either agree upon the price with the owner, or in condemnation pay just compensation therefor." (Page 336)

The validity of this principle has never been doubted in this Court, but a great variety of cases have arisen presenting the question as to whether or not a particular act of the Federal Government in furtherance of navigation did in fact constitute a taking of private property or merely caused incidental damage to property so related to the navigable stream in question as to be under a servitude to bear without compensation damages incident to the improvement of the stream. In some of the cases the distinction seems to be as between an actual taking of the physical property and a damage to the property, but this distinction does not appear to be entirely satisfactory. Property may be so damaged as to be useless. To deny the owner compensation merely permitting him to have

the barren satisfaction of retaining the legal title and perhaps having physical possession of property he could no longer use, would be to victimize him by forms of law rather than to render justice according to the merits of his cause. The true distinction would rather seem to be that riparian property has, implicit in its location, such a relation to the stream that it must bear the normal consequences of those improvements in the stream which are made in order to render the stream more serviceable for the great purposes of national commerce. This servitude derives from the location of the land and is natural and obvious. If the stream be deepened with a consequent increasing erosion of its banks, the damage is natural. If the Government selects one or the other of two possible channels for improvement and thus incidentally neglects or even injures property upon the other channel, it is again clear that this is a mere incident of the servitude. That which nature has intended man has perfected with regard to the channel improved and that possibility was inherent in the fact that the stream was a navigable stream. If on the other hand for the purpose of improving a stream it be widened, thus doing more than nature intended, and for this purpose land must be actually taken, compensation must be paid because the Government in the public interest, has gone beyond nature's intended process and has so exceeded the servitude of the riparian owner. Similarly, if land not adjacent to a navigable stream be taken or damaged as by excavating stone from it to improve a navigable stream nearby or remote, the taking or injury must be compensated because the land thus damaged is under no servitude to contribute to the improvement. Similarly, if the land bordering upon a navigable stream be injured by an impairment of the navigability of the stream, which does not arise from an effort to improve the stream and does not in fact improve the stream but

is for another purpose, as for instance to provide sanitary appliances for a city or to create an artificial waterway, the damage constitutes a taking because there is no servitude in the riparian proprietors along navigable waters to endure a damage to their property for the benefit of the sanitation of a remote city or for the creation of an artificial waterway, however useful, at a place where nature has not intended one to be. This does not mean that the artificial waterway may not be useful, but it means that the creation of it is beyond the servitude of the riparian proprietors of the stream which is sacrificed for its creation.

A full discussion of this subject is found in the important case of *Fulton Light, Heat & Power Co. v. State,* 200 N. Y. 400. This case grew out of the construction of the New York State Barge Canal. In the course of the construction, it became necessary to parallel the Oswego River with an artificial canal and the question arose as to whether the diversion of the waters of the Oswego River into the artificial Canal constituted such an improvement of the river as a waterway as to impose damages caused to riparian owners as a mere incident for which compensation was not necessary to be paid. The Court of Appeals of New York held,

> "While the state may make improvements in navigable rivers for the purpose of aiding navigation without regard to the ownership of the bed, the interest of the riparian owner therein being subordinate to the public easement of which the state is trustee, the state cannot divert the waters of a river to the injury of a riparian owner by constructing a canal wholly outside the channel of the river without paying compensation for such injuries."

In the body of the opinion it is said,

> "But when, under the plea of the improvement of navigation, the property of the riparian owner is

taken, or diminished by the diversion of the waters, for a public work not within, but wholly outside, the channel of the river, I think there is a clear case for the enforcement of the constitutional guaranty of compensation. If the appropriation is for a purpose not incidental to the natural, or public, servitude in the river, how could that provision of the fundamental law of this government—so instinct with the principle of justice,—find juster application? The State, by the exercise of its power of eminent domain, could take these claimants' lands and divert from their power plant properties the water power, which operated them, upon making just compensation therefor; but in my opinion, it had no unlimited right to make a use of the river for a public purpose, except as such purpose was related to the improvement of the channel, or bed, of the river itself for purposes of navigation or transportation."

To the point that the servitude of riparian property for the benefit of navigation does not extend to the invasion of riparian rights by the sovereign or otherwise, for the creation of an artificial waterway, for power purposes, for drainage purposes, for irrigation purposes, for municipal water supply, or for any purpose other than improving the navigable waters to which the riparian property is littoral, complainants cite without discussion the following cases:

Ex parte Jennings, 6 Cow. 518, 16 Am. Dec. 447; *Canal Fund Commissioners v. Kempshall,* 26 Wend. 404; *Cooper v. Williams,* 5 Ohio 391, 24 Am. Dec. 299; *Buckingham v. Smith,* 10 Ohio 288; *In re Dancy Drainage District,* 129 Wisc. 129, 108 N. W. 202; *In re City of New York,* 168 N. Y. 134, 61 N. E. 158, at 161; *Smith v. City of Rochester,* 92 N. Y. 464; *United States v. Great Falls Mfg. Co.,* 112 U. S. 645; *Pine v. New York,* 103 Fed. 337 (Affirmed, 112 Fed. 98, Reversed on other grounds, 185 U. S. 93); *McCord*

v. High, 40 Iowa 336; *Barrett v. Metcalf,* 12 Tex. Civ. App. 247, 33 S. W. 758.

As a matter of fact the situation is anomalous. Under the decision of the Supreme Court of Illinois, the State in which this diversion is made, the citizens of that State, who are riparian owners upon the Chicago River are entitled to damages, *Beidler, et al. v. Sanitary District of Chicago,* 211 Ill. 628, while everybody outside of the State of Illinois, according to the claims of the Sanitary District here urged, who is likewise injured is denied relief, for it must be clear that if riparian owners upon the Great Lakes System outside of Illinois are accorded the rights given to Beidler by the Supreme Court of that State, then these injured riparian owners outside of Illinois have rights which their States may enforce under the doctrine of *Tennessee Copper Co. v. Georgia.* The State can not be compelled to accept compensation but may seek in this Court to restrain the injury.

When the cases in this Court are examined from this point of view, it will be found the distinction suggested controls the decisions and further that this Court has consistently regarded navigable streams *in their natural condition* as the basis for the determination of the rights both of individual riparian proprietors and the cases of conflicting sovereignties. Here, of course, we have the complainant States asserting both their own quasi-sovereign and proprietory rights and representing as *parens patriae* the rights of their citizens, owners of lands abutting upon this waterway.

In *United States v. Rio Grande Irrigation Company,* 174 U. S. 690, the court had before it an application of the United States to restrain the Rio Grande Land and Irrigation Company from building a dam across the Rio Grande River in the Territory of New Mexico and appro-

priating the waters of that stream for the purposes of irrigation. The river within the limits of the Territory was not navigable and the purpose was to accumulate and impound waters from the river in unlimited quantities and distribute the same through canals, ditches and pipe lines. On behalf of the United States it was claimed that the Rio Grande was navigable in the State of Texas and that its navigability depended upon a continuous flow of the waters sought to be impounded in New Mexico. This view the court sustained in spite of the custom of the country, altering the common law rule with regard to the abstraction of waters for irrigation purposes. The court points out at page 707 the Act of September 19, 1890, and holds it to be a declaration by Congress prohibiting the creation of any obstruction to the navigable capacity of waters in respect to which the United States has jurisdiction. For this reason the court declines to limit its view to the treatment of the waters of rivers in the innavigable reaches and directs a decree which will prevent any substantial diminution of the navigability of the stream within the limits of its present navigability, thus conserving the stream as nature made it and required, of upper proprietors and upper States, recognition of their obligation not to interfere with the navigability which nature had created.

In *United States v. Lynah,* 188 U. S. 445, the Government in an effort to improve the Savannah River constructed a dam across the river and lands belonging to individuals were flooded, totally destroying their value. This was held to be a taking of private property within the scope of the Fifth Amendment. The court said that although the work done was in improvement of the navigability of a navigable river, the injuries could not be regarded as purely consequential. In the opinion of the court all the early cases were examined at length and the

doctrine of *Pumpelly v. Green Bay Co.,* 13 Wall 316, was followed.

In *United States v. Cress,* 243 U. S. 316, it appeared that in improving the navigation of the Cumberland River in Kentucky, the Federal Government, by means of a lock and dam, raised the water above the natural level so that lands on a non-navigable tributary not normally invaded thereby, were subjected permanently to periodical overflows substantially injuring, though not destroying their value. This was held to be a partial taking of property which could only be done upon compensation. In the opinion a very careful re-examination is made of all the cases including *Gibson v. United States,* 166 U. S. 269; *Scranton v. Wheeler,* 179 U. S. 143; and *Jackson v. United States,* 230 U. S. 1. In the opinion the nature of the servitude of riparian lands is carefully examined and the conclusion reached that,

> "It follows from what we have said that the servitude of privately-owned lands forming the banks and bed of a stream to the interests of navigation is a natural servitude, confined to such streams as in their ordinary and natural condition are navigable in fact, and confined to the natural condition of the stream. And, assuming that riparian owners upon non-navigable tributaries of navigable streams are subject to such inconveniences as may arise from the exercise of the common right of navigation, this in like manner must be limited to the natural right. The findings make it clear that the dams in question, constructed by the Government in the Cumberland and Kentucky Rivers, respectively, are for raising the level of those streams along certain stretches by means of back water, so as to render them, to the extent of the raising, artificial canals instead of natural waterways."

In the case of *Sanguinetti vs. United States,* 264 U. S. 146, which is cited by the Special Master, the principle of

liability is clearly recognized but relief is denied because it was doubted in that case whether the injury complained of was caused by the structure erected by the Government and because it was not certain that there was "an actual, permanent invasion of the land," since the floods were exceptional and were a mere indeterminate addition to periodical floods which occurred prior to the Government's intervention.

In the case at bar, the various injuries to the complainant states are permanent and they proceed not from an improvement of navigable waters of the United States in accordance with their natural condition, but from a a construction in defiance of nature's intention. On the principle of these cases, it is clear that the States, cities and individuals, who have improved their lands with reference to the Great Lakes waterway, as nature's provision for their use, and have built up a vast civilization about this waterway which depends upon its maintenance and improvement in order to further its efficiency in performing a service which nature obviously intended it to perform, have the servitude to bear all the incidental damage which flows from improvements in the watercourse, but it is not conceivable that these interests are under any servitude which requires them to bear the injury caused by the construction of unnatural and artificial watercourses, which not only do not improve the serviceableness of the Great Lakes water system but directly, permanently and substantially damage it in the interest of an artificial waterway. In questions of this kind, the existence of a power can be not improperly argued by supposing a critical use of the power. Could the United States acquire a strip of land from Lake Michigan or Lake Erie to the Gulf of Mexico and thus create a great inland waterway by excavating a canal, drawing off the waters of the Great Lakes and terminating the Great Lakes waterway at Niagara

Falls? Perhaps it is not necessary to answer that question as to the power of the Federal Government as it is not presented in this record, but clearly if the United States has the power to create any such waterway, the power is subject to the limitations of the Fifth Amendment and the damage caused to a great industrial civilization which has built itself securely about the Great Lakes could not be called incidental to the improvement of navigable waters of the United States.

This question is, of course, important only if this Court should find itself obliged to hold that the Sanitary District and the State of Illinois have no power to withdraw water from Lake Michigan against the protest of the complainant States, except as they derive power so to do from the permits issued by the Secretary of War. Should the Court arrive at such a point, we submit it would be obliged to hold that the United States could not itself thus and for these purposes diminish the navigable capacity of the Great Lakes without responding to the obligations imposed by the Fifth Amendment and that it could not therefore empower the State of Illinois and the Sanitary District so to do.

2.

"That Congress could not authorize the diversion from the Great Lakes-St. Lawrence watershed to the Mississippi watershed."

Much that is said above in discussing the application of the Fifth Amendment applies to the question now to be considered. The trust upon which the States hold their property and dominion over these waters is that they shall be preserved inviolate, their navigable capacity preserved and their navigation facilitated. The powers of the Federal Government are likewise given to it upon trust and

all that this Court has said about the implications to be drawn from the natural condition of the waters in these waterways characterizes the trust and limits the power both of the States and of the Federal Government. But this Court applies great principles of equity in the interpretation of the Constitution and where it is asked to find a power, the exercise of which is at variance with plain principles of equity and good conscience, it will find that power only if given in express words and will not construct it by doubtful implications.

It is not too much to say that the whole industrial and commercial structure of the United States has been built about the existence of two great waterways separated by the Continental Divide, opening interstate and international communication by the St. Lawrence on the one hand and the Mississippi on the other. Each has its natural advantages. In the basin of each of these waterways, vast populations have built up their social and industrial institutions to use to the maximum these natural advantages. An intense but constitutionally restrained rivalry exists between the two sections and the dominant character of their respective civilizations has been determined, throughout the past one hundred years, as much by their respective advantages as by their common advantages. That the natural advantages of the Great Lakes region should now be sacrificed to the drainage of Chicago or to the improvement in the navigable depths of the Mississippi would be at variance with the just expectations of the States and their peoples, who have settled the Great Lakes region and built it into an efficient industrial empire. To destroy these just expectations would be grossly inequitable and as we have seen, there is no express language in the Constitution which requires the implication of any such power. It can not be that the power will be found to be implied by the absence of a limitation in the Constitution to which the

Special Master calls attention. (Special Master's Report, page 153.)

In *Hudson County Water Company v. McCarter,* 209 U. S. 349, 356, this Court said,

> "But we agree with the New Jersey courts, and think it quite beyond any rational view of riparian rights that an agreement, of no matter what private owners, could sanction the diversion of an important stream outside the boundaries of the State in which it flows. The private right to appropriate is subject not only to the rights of lower owners but to the initial limitation that it may not substantially diminish one of the great foundations of public welfare and health. We are of opinion, further, that the constitutional power of the State to insist that its natural advantages shall remain unimpaired by its citizens is not dependent upon any nice estimate of the extent of present use or speculation as to future needs. The legal conception of the necessary is apt to be confined to somewhat rudimentary wants and there are benefits from a great river that might escape a lawyer's view. But the State is not required to submit even to an aesthetic analysis. Any analysis may be inadequate. It finds itself in possession of what all admit to be a great public good, and what it has it may keep and give no one a reason for its will."

The question of the diversion of water from one watershed to another was raised in *Wyoming v. Colorado,* 259 U. S. 419. In its opinion the court held the point to be of no importance for the reason that both Wyoming and Colorado had adopted domestic policies with regard to diversion which disregarded the watershed. We know of no other case in which this question has been raised.

We present the question to the Court to be considered in determining the extent of the power given by the Constitution to Congress. Conceding freely and fully the dominance of Congress in its regulation of navigable waters,

we yet submit that the meaning of the donation of power is that Congress shall have the right to regulate those waters where they are and not to carry them by artificial channels to some other place to be regulated, and that this limitation upon the power of Congress grows stronger with each interest built up around navigable waters, in their natural condition and location, until it becomes irresistible in such a case as that at bar, where the whole industrial and commercial fabric of the civilization of great States depends upon the unimpaired preservation of the natural advantages which caused men to seek locations and build their cities and the avenues of trade and commerce in relation to those natural advantages.

The Special Master at page 157 of his report expresses the belief that this Court necessarily recognized the power of Congress to authorize the diversion of water from Lake Michigan to the Mississippi watershed in its decision in *Sanitary District of Chicago v. United States,* 266 U. S. 405. As we have already pointed out, the power of Congress to veto action prejudicial to the navigability of a stream is an entirely different thing from a power in Congress to authorize, that is to say, to supply authority for, such action. The only question at issue in *Sanitary District of Chicago v. United States* was whether the United States had the power to veto the abstraction of Lake Michigan water to the prejudice of the navigable capacity of the Great Lakes. It is true that United States was not seeking to impose an absolute, but a limited veto, and the court sustained the veto to the extent of the relief sought. Further than that it was not asked to go and could not go on the issue presented.

3.

"That the authorization of the diversion would constitute a preference of the ports of one State over those of another in violation of Article I, Section 9, Clause 6 of the Constitution."

The question is as to the construction of Article I, Section 9, Clause 6, of the Constitution, which reads,

> "No preference shall be given by any Regulation of Commerce or Revenue, to the Ports of one State over those of another; nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another."

The question of the construction of this clause has been raised in only two cases. In *Pennsylvania v. Wheeling Bridge Company,* 18 How. 421, it was held by a divided court that this clause did not apply to the circumstances of that case. In *South Carolina v. Georgia,* 93 U. S. 4, where the clause clearly had no application to the facts, the court at page 13 said,

> "It was there said that the prohibition of such a preference does not extend to acts which may directly benefit the ports of one State, and only incidentally injuriously effect those of another, such as the improvement of rivers and harbors, the erection of lighthouses, and other facilities of commerce."

This clause is an express limitation upon the power of Congress in regulating commerce and can not be understood as applicable to those laws only which are passed for the purpose of revenue. *Gibbons v. Ogden,* 9 Wheat. 1, 191.

It is submitted that the true application and construction of this clause is as follows.

Congress may improve the harbors of a particular State and create therein additional facilities for the convenience of commerce, without making a like improvement

in the ports of another State; and although the result of these improvements may be to attract some commerce from the ports of the second State to the ports of the first State, by reason of the additional conveniences and facilities for commerce thus provided, the detriment to the ports of the second State is incidental and not within the terms of the prohibition. The ports of the second State have all of the advantages and natural facilities which they had before the improvements in question were made. Nothing has been taken from them. However, if Congress undertakes not merely to provide additional facilities and improvements in the ports of one State which it does not provide in the ports of another, but in addition thereto attempts to take away from the ports of such other State the facilities which existed therein in a state of nature and transfer them to the ports of the first State, it is a direct preference and prohibited by the terms of this clause. It would not be contended that Congress could make a valid law requiring all navigation in the Northwest Territory to be carried on in and through the ports of Illinois and prohibit the carrying on of any navigation in or through the ports of Wisconsin, Michigan, or other States of the Northwest Territory. Such a law would clearly violate this clause of the Constitution. If, on the other hand, Congress should pass a law directing that all of the water in the ports of Wisconsin and Michigan should be taken away and given to the ports of Illinois, can it be said that such a law would be any the less within the prohibition of this clause? The same result has been accomplished. It is not the fact of improvement in the ports of Illinois which may incidentally attract commerce from the ports of Wisconsin and Michigan which renders the law invalid, but it is the fact of taking away from the ports of Wisconsin and Michigan their natural navigation facilities and transferring them to the ports of Illinois. If that be conceded, can

it be said that if Congress passes a law taking away from the ports of Wisconsin and Michigan six inches, or any other substantial part of their navigable capacity, and transferring such water so taken from the ports of Wisconsin and Michigan to the ports of Illinois, that it is any the less within the language and spirit of this prohibition?

The prohibition of this clause is not against a little preference, or against a medium preference, but against any preference. Can it be said that taking the water out of Milwaukee Harbor and giving it to the ports of Illinois is an incidental effect on Milwaukee Harbor? It is a positive and direct act by which the navigation facilities of one State are taken away and given to another State.

The Special Master quotes with apparent approval a statement in *Pennsylvania v. Wheeling Bridge Company, supra,* to the effect that,

> "It will not do to say that the exercise of an admitted power of Congress conferred by the Constitution is to be withheld, if it appears, or can be shown, that the effect and operation of the law may incidentally extend beyond the limitation of the power."

We say that it will not do to say that an express limitation upon a power delegated to Congress shall be ignored because the enforcement of that limitation will limit the very power for the control of which it was adopted. This limitation on the power to regulate interstate commerce was placed in the Constitution by the people for their protection. In a country as large as ours, composed of forty-eight States, some weak some strong, without such a provision it would be a simple matter for the stronger States, or a coalition of States to subordinate the interests of one State and its ports to the selfish advantage of another State or States, and to destroy navigation in the ports of one State for the benefit of another. No power to change Congressmen could help the small State.

If taking the waters, which are a gift of nature, away from the ports of one State and giving them to another does not constitute a preference between the States, it would be difficult to imagine what would constitute such a preference. When the waters, constituting a gift of nature in the ports of one State upon which navigation alone is possible, are taken away and given to another State, it is idle to say that the right of navigation remains or that the damage or preference is incidental.

This clause is an absolute bar to any attempt of Congress to take any such quantity of water away from the ports of the complainant States as will constitute an obstruction to, or on impairment of, their navigable capacity and give it to the ports of Illinois. Complainants respectfully submit that the Special Master erred in concluding that this clause was not a limitation upon the power of Congress to take water from the ports of the complainant States and give it to Illinois. It must be remembered that this is not an act performed in the ports of Illinois without any direct or physical effect on the ports of Wisconsin and Michigan, but it is an act which physically takes place in its inception in the ports of Wisconsin and Michigan and ends in the transportation of their natural advantages to the ports of Illinois.

4.

The power of Congress extends to the protection and improvement of navigation, but not to its destruction or to the creation of obstructions to navigable capacity.

The precise question presented here is—May an act of Congress, resting solely upon an alleged exercise of the power to regulate interstate commerce, be held valid upon the sole ground that it destroys navigation or obstructs navigable capacity? There is presented here no conflicting claims of navigation or commerce. *Master's Report 63.*

If this power exists, it must rest on an abstract right of Congress to authorize persons or corporations to destroy navigation or obstruct navigable waters of the United States without regard to the purpose. *Wheeling Bridge Case,* 18 Howard, 421; *South Carolina v. Georgia,* 93 U. S. 4; *Miller v. Mayer,* 109 U. S. 385; and *The Louisville Bridge Co. v. United States,* 242 U. S. 409, (cited by the Special Master) represent conflicting claims of navigation or of different kinds of interstate commerce. *United States v. Chandler-Dunbar Co.,* 229 U. S. 53, represents conflicting claims of power and navigation. None of these cases related to obstruction of navigable capacity. This case represents nothing but the assertion of a naked right to obstruct or destroy navigation for an unrelated purpose. The distinction was well pointed out in *Woodruff v. N. Bloomfield Gravel Mining Company,* 18 Fed. 753, where the court said, p. 778:

> "Congress is authorized to '*regulate,*' but not *destroy* 'commerce among the states.' It may, undoubtedly, in its wisdom, obstruct, or, perhaps, destroy navigation, to a limited extent, at particular points, for the purpose of its general advantage and improvement on a larger general scale, such, for example, as by authorizing the building of a railroad or post-road bridge across a navigable stream; but it cannot destroy, or authorize the destruction, entire or partial, of the whole system of navigable waters of a state for purposes wholly foreign to commerce or post-roads, or to their regulation."

The Special Master in his report sums up the limitations of the powers of Congress over navigable waters as follows:

> "It has been declared by this Court that 'the right of the United States in the navigable waters within the several States is limited to the control thereof for pur-

poses of navigation' (*Port of Seattle v. Oregon & Washington R. Co.*, 255 U. S. 56, 63) and 'while Congress, in the exercise of this power, may adopt, in its judgment, any means having some positive relation to the control of navigation and not otherwise inconsistent with the Constitution, *United States v. Chandler-Dunbar Co.*, 229 U. S. 62, it may not arbitrarily destroy or impair the rights of riparian owners by legislation which has no real or substantial relation to the control of navigation or appropriateness to that end.' *United States v. River Rouge Improvement Company*, 269 U. S. 411, 419." *Master's Report 160.*

Let us consider the rights of Congress to create an obstruction or destroy navigable capacity in the light of these rules. The only relation to navigation in the instant case is the fact that the act destroys or obstructs the navigable capacity of the waters in question. Can an act of Congress, which would otherwise be void, be rendered valid solely because it obstructs and destroys navigation? Is that the real, reasonable and substantial relation and appropriateness to the purposes for which the power was delegated, which is said to be the controlling factor in determining the validity of congressional action in relation to interstate commerce? The fallacy of the argument of the Special Master lies in first assuming that the action of Congress has reasonable relation to the control of navigation, from which hypothesis the argument proceeds upon the basis of cases of a very different character, as heretofore stated, to the conclusion that the exercise of the power is valid. Such an argument begs the whole question. Certainly none of the foregoing cases sustained the naked right of Congress to destroy or obstruct the navigable waters of the United States for any or no reason. They simply stand for the principle that, where there are conflicting claims of navigation or interstate commerce, Congress may lawfully, in balancing these conflicting claims, create some interfer-

ence with navigation at a local point in furtherance of navigation or commerce as a whole.

Of course the destruction of a waterway with 8300 miles of shoreline can hardly be said to be local. However, the difficulty arises from the attempt to deduce an arbitrary power to destroy or obstruct navigable waters from an analogy to the power to balance conflicting claims of navigation or interstate commerce with the result of creating some slight interference with navigation at a local point, but with benefit to navigation or commerce as a whole. It is idle to discuss whether Congress can authorize the destruction or obstruction of navigation at one point for the benefit or improvement of navigation at another point, because that is not the case at bar. The case at bar raises the question flatly of whether Congress has the power to destroy or obstruct navigation as an abstract right so that the purpose or relation of the destruction or obstruction of navigation is immaterial. Complainants submit that there is no case which supports such a conclusion but that such a conclusion is contrary to the principles of all of the decided cases. The question here presented is not what Congress might do in the furtherance of a general scheme for the improvement of navigation, but whether Congress can authorize the obstruction or destruction of navigation on the sole ground that the power to regulate interstate commerce has been delegated to it. Congress's power is limited to the control of the navigable waters for the purpose of improving and fostering navigation. At that point the power ends. *Kansas v. Colorado,* 185 U. S. 125.

If, however, Congress did have the power to authorize the obstruction or destruction of navigation and navigable capacity as an abstract right, it could not exercise that power in the face of the Fifth Amendment, without com-

pensation. The servitude of riparian property in favor of navigation is limited to the incidental damages which may flow from the improvement of the navigable waters by the United States. There is no principle that riparian property is subjected to the burden of bearing damages without compensation, which may be caused by the creation of an obstruction to or the destruction of navigable waters. Assuming that Congress should decide that it would be better as a matter of national welfare that the waters of a small interstate navigable river should be drawn off in laterals for irrigation purposes than that the river should be preserved as an avenue of commerce for the small tonnage carried, would the riparian property owners be required to submit to this destruction of this navigable waterway without compensation? Would the destruction of the navigable waterway be part of the servitude of riparian property for the benefit of navigation? The answers are obvious. Clearly if Congress had the power to carry out such a scheme and chose to do so, compensation would have to be provided. Likewise, in the instant case, if it be assumed that Congress has the abstract power to create an obstruction in, or to destroy these navigable waters, compensation must be provided for the riparian owners. Since no compensation has been provided the act is forbidden on the part of the Government by the Fifth Amendment, and on the part of the State of Illinois by the Fourteenth.

5.

If it be assumed that Congress would have the power to divert water for purposes of navigation, Congress has no power to authorize the present diversion for purposes of sanitation and power development.

The Special Master states that the present diversion is for the purpose of disposing of the sewage of Chicago. *Master's Report 165.* However, the desire for profits from the use of the water abstracted from the Great Lakes for water power purposes, is not merely incidental, but has become a dominant factor, equal to, if not greater than, the sanitation motive in the demands of Illinois for the abstraction of large quantities of water. It cannot be fairly said that the desire to obtain a net annual income of $3,000,000 for the State of Illinois from the abstraction of immense quantities of water from the Great Lakes for power purposes is *merely incidental.* See *Fact Brief, Part V, 2, pages 24-31 ante.*

Thus the question now arises—Can the Congress authorize such a diversion as will substantially obstruct or impair the navigable capacity of the Great Lakes for local use in sewage disposal, and for the development of water power? The Special Master apparently concedes that, standing alone and without relation to any other purpose or effect, it would be beyond the power of Congress to authorize the obstruction or destruction of the navigable waters of the United States for the purpose of enabling private or municipal corporations to dispose of sewage or develop waterpower.

Clearly the public easement for navigation, although it comprehends the right to improve navigable waters for navigation purposes, does not extend to the appropriation of the waters or the damaging of riparian property, without compensation, for waterpower, sewage or drainage

purposes. *Buckingham v. Smith,* 10 Ohio 288; *In re Dancy Drainage District,* 129 Wis. 129, 108 N. W. 202; *Smith v. City of Rochester,* 92 N. Y. 464; *Walker v. Board of Public Works,* 16 Ohio, 440; *U. S. v. Great Falls Mfg. Co.,* 112 U. S. 645. See also pages 102-105, *ante.*

In re *City of New York,* 168 N. Y. 134; 61 N. E. 158, at page 161 the Court said:

> "Does this principle of implied or reserved power extend to any public use of the tideway or the waters beyond the same for purposes not related to, or connected with, navigation and commerce? The basis of the theory upon which the trusteeship of the state in our tideways and tidewaters is founded seems to be that there are certain rights of navigation and commerce by water which are common to all, and are, therefore, paramount to the rights of individuals. As was said in the *New York & S. I. Ferry Co. Case,* 68 N. Y. 77: 'The sea and the navigable rivers are natural highways, and any obstruction of the common right or exclusive appropriation of their use is injurious to commerce, and, if permitted at the will of the sovereign, would very likely end in crippling, if not destroying it.' Therefore the state, which is the public in concrete form, is charged with the duties and vested with the powers essential to the establishment and preservation of these common rights. The very implication of the trust upon which the state holds the tideway and tidewaters speaks of the definite purpose for which it was created. If the state may use the waterways for any purpose whatsoever, then it is no longer a trustee, but an irresponsible autocrat. If it may erect upon our tideways or tidewaters any kind of structure that may be suggested by the whim or caprice of those who happen to be in power, it will be possible to destroy navigation and commerce by the very means designed for their preservation and improvement."

However, it is said that one of the basic contentions of the complainant states is that the diversion affects navigation. But the sole effect of the diversion on navigation is to obstruct or destroy it! If Congress has no power to authorize the diversion solely for sanitation and water power purposes with attendant injury and damage to riparian property, or to apportion the property rights of property owners along the shores of the Great Lakes by congressional fiat, then the power to authorize this diversion must depend upon the arbitrary and naked right of Congress to obstruct or destroy navigation, merely because it is such navigation. The argument is that because the diversion obstructs navigation, Congress may authorize it. Clearly, if the diversion did not obstruct navigation, Congress could not authorize it for sanitation and power purposes as against these complainants. Then the power of Congress, if it exists, to authorize a third party to destroy the property rights of the complainant states and their peoples, must rest upon the fact that it incidentally destroys navigation also. Is it reasonable to conclude that because an act which would otherwise illegally destroy the property of the complainant States and their peoples, also illegally destroys navigation, the very magnitude of the injury inflicted and the illegality of the act gives rise to a power in Congress to authorize it?

But, it is argued that if this were not so Congress would have no power to impose penalties for the diversion of these navigable waters; that the injured states could not impose penalties because they cannot legislate extra-territorially, and that the only remedy would be by an application to this Court for an injunction. *Master's Report 166.* If that were true it would surely be a much more happy state of affairs for the injured complainants than the one created by the construction of the Special

Master. However, the conclusion does not follow from the premise. It does not follow that, because Congress cannot authorize this diversion and the obstruction of these navigable waters for the purposes of sanitation and waterpower, it cannot forbid the diversion for the preservation of the navigable waterways of the United States. Clearly no one may obstruct the navigable capacity of any of the navigable waters of the United States without the affirmative consent of Congress. But that does not mean that Congress would have the power to destroy a navigable waterway for irrigation purposes or some other purpose wholly unrelated to navigation. Congress has the power under the Eighteenth Amendment to pass legislation to control and forbid the manufacture, sale and transportation of intoxicating liquors, but it would hardly be contended that, because Congress has the power to forbid, it likewise has the power to authorize the manufacture and sale of intoxicating liquors. But if the reasoning of the Special Master were correct, that would necessarily follow. Cases like the cited case of *Miller v. Mayer,* 109 U. S. 385, have no application to this question. First, the question of the right of Congress to balance conflicting claims between two kinds of interstate commerce and the right of Congress to authorize the destruction of navigable waters and navigation for purposes of waterpower and sewage disposal are very different things. Second, even congressional authorization for the erection of a bridge in a particular locality does not empower the permittee to erect the bridge on someone else's land or to damage other people's property without compensation. The right to appropriate other people's property in the construction of the bridge, regardless of the authorization by Congress, could only be obtained through the exercise of the power of eminent domain. However, under the construction of constitutional power adopted by the Special Master, the

authorization of Congress to create an obstruction which is not part of a navigation scheme, carries with it the right in the permittee to appropriate the property rights of all of the riparian owners in the complainant States without compensation, and against their will.

It is said that if Congress has the power to prohibit a diversion of navigable waters it is not tenable to say that it may not determine in its discretion what diversions it will prohibit. *Master's Report 166-167.* That may well be conceded without having any bearing on the answer to the question under discussion. Obviously Congress does not have to act; and if it does act for the purpose of protecting the waterways entrusted to its care, it may act to such extent as it sees fit; but the concession that it does not have to exercise its right of prohibition—or if it does exercise it, need only exercise it to the degree which it sees fit—is no ground for reaching the conclusion that it may authorize the destruction of riparian property or a raid upon the navigable waters of the United States for local sanitation and power. To do so invades the reserved rights of the States and confiscates property of their citizens. Since no power to appropriate the navigable waters of the United States for waterpower and sewage disposal has been delegated to Congress, the power of Congress with respect to the appropriation of these waters for those purposes is limited to its right to prohibit any appropriation which will destroy or substantially injure any of the navigable waters entrusted to its care, *Kansas v. Colorado,* 185 U. S. 125; *United States v. Rio Grande Dam & Irrigation Co.,* 174 U. S. 690; but it is not empowered to authorize such an appropriation for such purposes merely on the ground that the appropriation destroys the navigable waters which Congress has the duty to protect. The power to approve implies the power to

disapprove, but the power to veto does not imply the power to create or authorize.

We again invite the attention of the Court to the fact that if it were conceivable that Congress, under the power to regulate navigable waters, implied from the power to regulate interstate commerce, had the power to authorize the appropriation of navigable waters for sanitation and power, clearly that could not be done without compensation under the Fifth Amendment. The servitude to which riparian property is subject in relation to the improvement of navigable waterways does not include the power to destroy or substantially injure riparian property for purposes of sanitation and power. Hence if Congress had the power to give such authority, it could only be exercised by virtue of eminent domain.

The only relation which the Special Master finds between this diversion and navigation is to prevent the pollution of the navigable waters of the United States in the Chicago River and adjacent portions of Lake Michigan. It is said that the discharge of this sewage into these waters without treatment might, and probably would, create such a pestilental condition as to constitute an obstruction to navigation thereon. Therefore, it is concluded that Congress may prevent or authorize the removal of this nuisance and obstruction to navigation by removing the navigable waters themselves. In short, Chicago, having created, or threatened to create, an illegal nuisance or obstruction to the navigable waters of the United States, may, if she will only consent to refrain from this violation of law, dispose of her sewage at the expense of the complainant States. But in the last analysis, what was sought to be done, and what was done, was to take care of the Chicago sewage. Navigation has not been improved; the navigable capacity of the Lakes has been decreased. The only result has

been that the sewage of Chicago has been taken care of at the expense of navigable capacity. Congress has simply authorized the appropriation of these waters and the damage to the complainants for local sewage disposal and waterpower. We may go around the circle as we will, but it always brings us back to the initial question—Can Congress authorize a diversion of navigable waters, with an attendant obstruction or destruction of navigation, and with an immense damage to riparian property for local sewage disposal and waterpower desires? This we deny, and we believe that the Master's argument concedes the correctness of the conclusion. The power was never delegated to Congress to appropriate the navigable waters of the United States and to inflict untold damage upon riparian property without compensation, for sewage disposal or waterpower. The only result has been to dispose of the Chicago sewage.

The case of *New York v. New Jersey,* 256 U. S. 296, cited by the Special Master, is not authority for the Master's conclusion. In that case the power to prohibit was sustained; any power to authorize an act which would destroy property in New York on the ground that it involved an obstruction to navigation was denied. It is obvious that Congress can prevent the pollution of navigable waters of the United States to such an extent as to interfere with their navigable capacity or usefulness; but from that it does not follow that Congress can authorize the diversion of the navigable waters themselves for the purpose of taking care of the sewage of the wrongdoers. Congress can require this nuisance to be abated. But the minute that it attempts to authorize the abatement of the nuisance by the abstraction of the navigable waters themselves and the substantial obstruction and impairment of their navigable capacity, it attempts to authorize such obstruction and destruction for the purpose of sewage disposal and not

for the purpose of navigation. The appropriation of these navigable waters by Congress for the purpose of disposing of the sewage of the City of Chicago was not one of the powers delegated to Congress by the Constitution, and plainly is not a power which Congress can confer upon the State of Illinois and the Sanitary District.

IV.

WHETHER CONGRESS HAS GIVEN THE PERMISSION?

The question is whether, if it be assumed that Congress has power to control the diversion, Congress has exercised that power directly. After reviewing the various contentions of the defendants, the Special Master concluded on this branch of the case as follows:

> "I am unable to find that Congress, apart from the authority conferred upon the Secretary of War by Section 10 of the Act of March 3, 1899, and his action thereunder, which will be discussed later, has authorized the diversion in question. *Master's Report 173.*

In summarizing his conclusions on this question the Special Master states:

> "My conclusions are: * * *
>
> 4. That Congress has not directly authorized the diversion in question." *Master's Report 196.*

The reasons which the defendants advanced in an attempt to support their contention of a direct congressional authorization were of the most specious character. So far as they rested upon any basis of fact, the Special Master states that such facts are set forth in his report, pages 26-72, 85. *Master's Report 172.* It is our purpose to point out briefly that such acts of Congress and reports of Government Engineers as are therein referred to have no relation to this diversion, and much less constitute any direct Congressional authorization therefor.

The first class of material relied upon by the defendants relates to a series of surveys made by various Federal Engineers on the Illinois River, of which some called for a report on or voluntarily adverted to the feasibility of a water connection between the Illinois River and Lake Michigan. However, the water connection between Lake Michigan and the Illinois River, which was under consideration in these various reports, provided for a much smaller channel than that of the Drainage Canal, and involved an insignificant diversion of water for navigation purposes compared to the enormous diversion of the Chicago Sanitary District for sewage purposes. In these reports Congress was repeatedly advised that a diversion of less than 1,000 second feet would be more than ample for such a water connection for navigation purposes, and for any reasonable needs of navigation on the Illinois River. See *Fact Brief* pp. 34-35 *ante*. *Joint Abstract 41-45*. Can such proposals be said to have any relation to a diversion of 10,000 c. s. f. for sewage disposal? In the light of these reports and other information, Congress has always refused to pass numerous bills which the Sanitary District has caused to be introduced from time to time in various guises for the purpose of attempting to secure direct authorization of Congress for this diversion. However, none of these reports of surveys was ever accepted or acted upon by Congress. Congress receives a great variety of reports upon an infinite number of questions containing all manner of suggestions. If this argument is to be accepted then Congress can never safely receive a report of any character or the Federal Government will be bound by all of the various suggestions therein, whether accepted or acted upon at all.

As a further basis of this contention defendants relied upon various appropriations for the improvement of

the Chicago harbor, commencing with the appropriation contained in the River and Harbor Act of July 13, 1892. *Master's Report 29.* We do not know why the defendants did not also urge the various appropriations for the Chicago harbor in the different River and Harbor Acts of Congress made during the fifty or one hundred years prior to 1892, for they had as much relation to the Chicago diversion as did the Act of July 13, 1892, or any of the five subsequent Acts cited. *Master's Report 33, 36.* Likewise it would have been as pertinent to have cited the Congressional appropriations for the improvements of the harbors of Duluth, Milwaukee, Cleveland, or Buffalo, for their relation to the Chicago diversion would have been the same, to-wit, none. From the inauguration of a system of Federal improvements in the Great Lakes and their connecting channels, the Federal Government constantly increased the depth of the Federal channels and Federal harbors provided in and on the lakes, as the needs of that great commerce, reflected in the constantly increasing draft of vessels employed, demanded, until the Federal plan eventually provided for channels 21 feet deep and a like depth in all of the principal harbors on the Great Lakes, of which the Chicago harbor was one until the interference with navigation therein produced by the acts of the Sanitary District, coupled with changing economic conditions, reduced the Chicago harbor to minor importance. See *Fact Brief* p. 19 *ante.* Most harbors on the Great Lakes have been obtained by dredging at the mouths of rivers and as far back in the channel of the river as the extent of commerce and location of industries using water transportation rendered desirable or necessary. All Federal improvements in the Chicago River, being then the harbor of Chicago, related to lake navigation, and the general scheme of its improvement, and not to this diversion which entered into a drainage

channel, and until 1910 discharged into a non-navigable tailrace. At that date a small lock, 22 feet wide was installed. A freight vessel drawing 21 feet, with a beam of 19 feet, would be an interesting contribution to marine engineering.

The Act of July 13, 1892, specifically provided for improving the Chicago harbor. *Master's Report 29.* The Act of March 3, 1899, provided for a 21 foot channel to the stockyards on the South branch of the Chicago River and to Belmont Avenue on the North branch of the Chicago River. Obviously this improvement related to lake traffic and not to the diversion. The North branch of the Chicago River was not then a part of the diversion scheme of the Sanitary District, as the application to construct the North channel was not even made until September 11, 1907. *Master's Report 51.* The improvement of the South branch likewise related to lake navigation, as the stockyards were located at a considerable distance South of the point where the Drainage Canal connected with the South branch. The diversion of the Sanitary District depreciated these improvements, whereupon the Federal government abandoned all of its projects in the Chicago River, except in the main branch (a distance of a mile from the mouth of the river to its forks). Therefore, in 1902, after pointing out that Chicago, by its use of the Chicago River as the main sewer of the City, had depreciated the value of the Federal Improvement and subjected large sections of the river to deteriorating influences as a navigable channel by reason of its use as an open sewer, the Federal District Engineer stated that the United States Government should not be called upon to maintain channels so used, and that the Federal project in both the North and South branches of the river should, therefore, be abandoned, stating: "Accordingly, no estimate for maintaining the channel excavated under the

project of 1896 is submitted." *Annual Report of the Chief of Engineers 1902. Appendix K K p. 2097.*

The lowering of the tunnels under the Chicago River, provided for in the Act of March 3, 1899, was occasioned by the fact that these tunnels were limiting the draft of lake vessels plying to and from the port of Chicago so as to constitute an obstruction to lake navigation. This was expressly declared by Congress in the Act of April 27, 1904. *33 Stat. 314.* The tunnels had been constructed under the authority of the City of Chicago, which was therefore required to remove them, or cause them to be removed, without expense to the Federal government. The statute of April 27, 1904, was one of the underlying reasons for the decision in *West Chicago Street Railway Company vs. Chicago,* 201 U. S. 506, 527. These tunnels limited the draft of vessels to about 16 feet, which was obviously inconsistent with a program for 21 foot channels on the lakes. All of these improvements in the Chicago harbor had no more relation to the diversion than the similar improvements made in the harbors of Duluth, Milwaukee, Cleveland and Buffalo.

The Act of Congress of June 25, 1910 (36 Stat. 659, 660), appropriating $1,000,000 for the construction of a waterway from Lockport to the mouth of the Illinois River, provided that no portion of such appropriation should be expended until a plan had been submitted to and approved by Congress. In view of the repeated Government reports that less than 1,000 second feet of diversion would be more than ample for navigation purposes on such a waterway, this Act has no relation to a diversion of 10,000 c. s. f. However, any argument based thereon is conclusively answered by the fact that this appropriation was repealed by the Act of Congress of March 4, 1915, before any part of it had been expended or any work done thereunder. *Joint Abstract 112.*

The suggestion that the project depth in the Illinois River could not have been maintained without a diversion of 8500 c. s. f., is irrelevant and entirely unsupported by the evidence. The evidence is that the project of 1880 on the Illinois River, based on the low water of 1879, was never completed; that sufficient appropriations were not provided to complete this project; and that the project depth was not available even with the diversion. This condition arose solely from the fact that the project had neither been completed nor adequately maintained. *Fact Brief* 40-44 *ante.* No doubt Congress felt that the insignificant commerce on the Illinois River did not justify large expenditures. *Master's Report 119.* Reference is made to the Acts of Congress of 1822 and 1827 with reference to the construction of the old Illinois and Michigan Canal. This was a canal for navigation purposes, and not for sewage disposal, and had no possible relation to the instant diversion for that purpose. Originally it did not take its water supply from Lake Michigan; and the water required was insignificant in amount. The contention was well disposed of by Secretary of War Stimson in his decision of January 8, 1913.

> "The Sanitary canal has never received the direct sanction of Congress. It was built solely under the authority of the State of Illinois, as given in its 1889 general act for creating sanitary districts. And although pursuant to the suggestion of my predecessors the question of the propriety of its diversion of water from Lake Michigan was presented urgently in the report of the Chief of Engineers for the years 1899 and 1900 as transmitted to Congress, no action upon the question has ever been taken by that body. In the argument before me it was urged that the present canal represented the growth and development of a national policy expressed in two acts of Congress, 1822 and 1827, which authorized the construction of a canal 'to connect the Illinois River with Lake Michi-

gan,' thus connecting the two watersheds. (Acts of Mar. 30, 1822, and Mar. 2, 1827.) But these statutes authorized a canal for the purpose of navigation and not sanitation. (*Missouri v. Illinois,* 200 U. S. 526.) The Illinois and Michigan Canal, actually constructed under their authority, derived its water for navigation purposes from the Calumet, Des Plaines and Chicago Rivers, and not from the Lakes. And although in the latter part of its existence it was used to a very slight extent to help purify the waters of the Chicago River and thus sanitate the City of Chicago, such a purpose could not have been dreamed of at the time its construction was authorized by Congress, 90 years ago. I cannot see that its authorization and construction offer the slightest congressional sanction for the great canal now under discussion, which was not even contemplated until much more than half a century later." *Joint Abstract 147-148.*

In commenting upon the contention that the Act of Congress of 1827 constituted congressional authority for the diversion, the Hon. James M. Beck, then Solicitor General of the United States, and now the Chief Counsel of the Sanitary District of Chicago, in his argument before this Court in the Government suit, said:

"And I venture to say that no more untenable proposition has been advanced to this Court—and that is saying a great deal—that the suggestion that an act of Congress in 1827, granting land in aid of the construction of a canal for navigation purposes, before Chicago had any political existence, should be regarded, for all future time, as an authority to a city, that thereafter came into existence, to construct a canal, the cost of which they say, with its attendant works, now amounts to $100,000,000—not for the purpose of navigation, but primarily as a common sewer. To say that the construction of a little canal nearly a century ago, for one purpose, is an implied authority for the construction of another canal for an entirely

different purpose, is a proposition that I shall not take the time of the Court to discuss further." *Page 6.*

The conclusion of the Special Master is amply sustained in his report. In reporting on the application of the Sanitary District to open the Drainage Canal, Captain Marshall, on April 24, 1899, stated that it was strange that the Sanitary District had constructed such a channel without finding out whether the United States or other interested parties would permit the diversion of any of the waters of Lake Michigan, and further suggested that the question presented was beyond the decision of any executive officer and should be referred to Congress. *Joint Abstract 134, 136.* The Permit of May 8, 1899, advised that the Secretary of War would submit the question to Congress for decision. *Master's Report 39.* From time to time officers of the Engineering Corps of the War Department, either denied or doubted the power of the Secretary of War to authorize these diversions without direct authority of Congress. In 1913 the Secretary of War doubted his authority to authorize this diversion. From 1908 to 1925 the United States prosecuted a suit to enjoin the construction of an additional channel for diversion purposes and to reduce the amount of the abstraction. In 1922 Congress, on the recommendation of the Secretary of War, refused to pass a bill designed to secure congressional authorization for the diversion. *Master's Report 71.* All of these Acts, and many more, establish conclusively that Congress has not directly authorized the diversion.

The conduct of the Sanitary District is eloquent testimony of the fact that it did not believe that its diversion had ever been authorized by Congress. For nearly 30 years, from 1896 to 1925, inclusive, the Sanitary District of Chicago repeatedly sought Permits from various Secretaries of War, first, to institute the diversion, and

thereafter, on numerous occasions, to increase its extent. Is it conceivable that if the defendants had even fancied that the Congress of the United States had directly authorized this diversion they would have constantly harrassed the Secretaries of War for authority for a diversion which had the direct authorization of Congress itself? All of the Federal improvements are in the Chicago River. The situation is exactly the reverse of that involved in *Wisconsin vs. Duluth,* 96 U. S. 379. There the relief sought was the destruction of the Federal improvement. Here the relief sought will greatly improve conditions in and add to the value of the Federal improvements in the Chicago River. See *Fact Brief* 32 *ante.* The contention is conclusively disposed of by the Special Master in the following manner:

> "The argument that Congress, aside from the action of the Secretary of War, has authorized the diversion, at once raises the question—In what amount has the diversion been thus authorized? There is nothing in any of the acts of Congress upon which the defendants rely specifying any particular quantity of water which could be diverted and it could hardly be considered a reasonable contention that the acts of Congress justified any diversion of water from Lake Michigan that the State of Illinois and the Sanitary District might see fit to make. It is manifest that it was the view of the War Department that Congress had not acted directly and whatever the Department did was subject to such action as Congress might take. In the report of the Board of Engineers required by the Act of June 13, 1902, transmitted to Congress on December 18, 1905, the Board said: 'The taking of large quantities of water from Lake Michigan for drainage purposes has not been authorized by Congress. It has been the policy of the War Department thus far to regulate the quantity of water which is admitted to the canal by the necessities of navigation in the Chicago River' (*supra* p. 44). This shows the

understanding at that time. In 1907, in denying the application for an increase in the amount permitted to be diverted, the Secretary of War considered that it might 'be fortunate that circumstances now require submission of this question of capital and national importance to the Congress of the United States' (*supra*, p. 51). This understanding that Congress had not yet acted directly so as to authorize the diversion in question has continued. It was in this view that the United States prosecuted its suit to decree in this Court to enjoin the defendants from taking more water from Lake Michigan than the Secretary of War had allowed.'' *Master's Report 175.*

The defendants have filed no exception to the foregoing conclusion of the Special Master and obviously concede that the conclusion is correct.

V.

WHETHER THE SECRETARY OF WAR HAD AUTHORITY UNDER THE ACT OF MARCH 3, 1899, TO REGULATE THE DIVERSION.

If it be assumed that Congress would have the power to authorize directly this diversion, the question is then presented of whether it has delegated this power to, or conferred this power upon, the Secretary of War. This question involves the construction of Section 10 of the Act of March 31, 1899, *30 Stat. 1151, U. S. C. Tit. 33, Sec. 403.* Section 10 is as follows:

> ''That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States outside established harbor lines, or where no harbor lines have been established, except on plans recom-

mended by the Chief of Engineers and authorized by the Secretary of War; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same."

In considering the interpretation of this statute it is our purpose: first, to analyze the statute in an effort to determine what the plain language of the statute means under the commonly accepted principles of grammar and syntax; second, to discuss the history of this statute with a view of determining whether any light can be thrown upon its interpretation; third, to discuss what, if any, practical construction has been had of this Section, and its weight in relation to the plain language of the statute; fourth, to discuss what, if any, judicial interpretation of this statute has been had with reference to its application to a situation such as the instant case.

1.

Analysis of Language and Meaning of Statute.

The first provision of this section states: "That the creation of any obstruction not affirmatively authorized by Congress to the navigable capacity of any waters of the United States is hereby prohibited." It would be difficult to conceive of any more precise, comprehensive and definite statement that this. It is not a prohibition of any obstruction to navigation, but to any obstruction to the navigable capacity; and anything wherever and however done which tends to destroy navigable capacity, is within the terms of the prohibition. If this provision were standing alone, clearly there could be no contention but that no

obstruction could be created to the navigable capacity of any of the waters of the United States without the affirmative authorization of Congress, to-wit, a general or special act of Congress. If any other conclusion is to be reached, it must be based upon the subsequent provisions of the statute.

The next, or what might be termed the second, provision of the statute reads:

> "and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of War."

The question immediately presents itself—Is this an exception from the general prohibition clearly stated in the first part of the Act, or is it cumulative in character so as to extend the control of the navigable waters of the United States beyond what is imported by the direct prohibition against the creation of any obstruction not affirmatively authorized by Congress? Those, who contend that this provision creates an exception to the general prohibition against obstructing the navigable capacity of the waters of the United States are confronted at the outset by the fact that the quoted provision is stated in the conjunctive and under all of the rules of grammar applicable to the English language, constitutes an addition to what has gone before, and not an exception therefrom. It must be admitted that if the intention were to create an exception, singularly inapt language was used. This statute was not the work of inexperienced legislators. It was the fruit of the best efforts of men who had years of experience in Congressional legislation, aided by the careful revision and draft-

ing of the most expert legal and engineering minds of the War Department, pursuant to the directions to the Secretary of War contained in the Act of Congress of June 3, 1896. That neither the Congress nor the drafters of this Section were ignorant of the customary language employed in statutes where exception to a general provision is sought, is clearly demonstrated by Section 9 of the Act of March 3, 1899 relating to the construction of bridges over navigable waters, where, after the general statement at the beginning of the Section, the provision for construction of bridges over intrastate waterways commenced with the usual words: "Provided that," and clearly stated an exception to the preceding general prohibition.

But it is said that Congress could not have meant what is clearly stated, because if it had meant what it said, a special act of Congress would be required for the construction of every wharf, pier, boom or dolphin, which is said to be unthinkable. This contention proceeds upon an obvious fallacy. If the general prohibition of this Section stood alone and the second provision now under discussion, and the third which will subsequently be discussed, were eliminated entirely, it would not require a special act of Congress to authorize the construction of every wharf, pier, etc. Wharves, piers, dolphins, etc., do not necessarily, or even ordinarily, create an obstruction to the navigable capacity of a waterway. In fact, they ordinarily increase the navigable capacity of a waterway. Certainly if they are properly constructed and providently located, they constitute no obstruction to the navigable capacity. Hence, if the second provision of this section were stricken from the Act, wharves, piers, dolphins, etc., could be constructed without an express statute of Congress, so long as they did not obstruct the navigable capacity of a waterway of the United States.

In *Yates vs. Milwaukee,* 10 Wallace, 497, the City of Milwaukee sought to abate Yates' Wharf on the Milwaukee River as an illegal structure. This Court held on the evidence in that case that there was no proof that the wharf constituted an obstruction to navigation, and that under those circumstances, the wharf could not be abated, but that if the City of Milwaukee desired to widen the channel of the Milwaukee River and deemed it necessary to remove the wharf for that purpose, the city must first provide compensation for the property so taken for a public use. Again in *Dutton, et al., vs. Strong, et al.,* 66 U. S. (1 Black) 23, at pages 31-32, it is held that piers, wharves and similar structures are legal, unless they are so located and constructed, as to constitute an obstruction and the burden is on the one asserting that fact to prove it. A similar rule is laid down in *Illinois Central Railroad vs. Illinois,* 146 U. S. 387 at 445-446. Many other cases might be cited to show that the structures herein enumerated are not necessarily, or even ordinarily, obstructions to the navigable capacity of a waterway, and that in the absence of a requirement for a permit, such as is incorporated in the second part of this section, it would in each case be a question for the jury as to whether the particular structure was as a matter of fact an obstruction to navigable capacity.

The question then presents itself—What was the object of incorporating the second provision whereby the recommendation of the Chief of Engineers and authorization of the Secretary of War were necessary before any of the structures enumerated could be erected? The effect of the provision and the reasons therefor are apparent on analysis. The effect of the provision is that none of these structures may be erected, even though they do not constitute an obstruction to the navigable capacity of any of the waters of the United States, without nevertheless ob-

taining the recommendation of the Chief of Engineers and the approval of the Secretary of War. Thus we find that in accordance with the clear meaning of the statute under all of the accepted rules of construction of the English language, there has been added to the force of the general provision a cumulative requirement that a Permit of the Secretary of War must be secured notwithstanding the fact that the proposed structure, as and in the place to be erected, will not constitute an obstruction to the navigable capacity of any waters of the United States. If we are to adopt the contrary construction of the Special Master to the effect that this provision is not merely a cumulative requirement in addition to the requirement that no obstruction of navigable waters of the United States may be created without the affirmative action of Congress, but that on the contrary, as to the enumerated structures and acts, an exception is created whereby they may be erected on a Permit of the Secretary of War, no matter what manner of obstruction may be created, then, we must conclude that the Permit of the Secretary of War is only necessary where the structure will create an obstruction to navigable capacity and would otherwise be within the prohibition of the first section of the Act. But that result would not only be contrary to the explicit language of the Act, but also to its purpose.

To hold that any of the structures, regardless of whether they obstruct the navigable capacity, can be erected under this Act upon a Permit of the Secretary of War, would be to fly in the face of every consideration and every purpose which led to the adoption of this Act, as will be more fully demonstrated in the discussion of the history thereof. The purpose of this cumulative provision to the effect that a Permit of the Secretary of War must be obtained for any of these structures regardless of whether they create an obstruction to navigable capacity, was so

that the absence of a Permit in and of itself, would be sufficient ground for their abatement if desired by the Secretary of War. Theretofore the Secretary of War could only abate such structures if they were in fact an obstruction to navigable capacity, and hence the opinion of the Secretary of War in his efforts to conserve and protect the navigable waters of the United States was, in each case, where he sought to abate such a structure which was, in his opinion, an obstruction to the navigable capacity, subject to the varying decisions of juries as to whether the particular structure was in fact an obstruction to navigable capacity. In this connection, we quote the statement made in a lecture before the Engineers School at Fort Humphreys, Virginia, on April 23, 1926, by Judge G. W. Koonce who drafted this Act, and who has been a law officer of the Corp of Engineers for forty years, with duties in connection with navigable waterways, chiefly involving the study, interpretation and application of laws relating to the improvement and protection of navigable waterways. Judge Koonce said:

> "One of the most effective features of section 10, and which tends to induce observance of its requirements, is that in case of a violation it is unnecessary to prove that the act committed has resulted in the impairment of navigation. As the law previously stood, the construction of a wharf, or other trespass on the waterway, without governmental authority, was not unlawful unless navigation was obstructed or impaired thereby, and the burden of proving this to the satisfaction of a jury rested on the Government whenever a prosecution for violation of the law was attempted. Under section 10, as well as section 13 relating to the discharge or deposit of refuse matter in navigable waters, the commission of any of the acts forbidden, not their results, constitute the offense, and the commission subjects the offending party to the prescribed penalty, regardless of whether or not there is any actual injury to navigation."

Hence, this cumulative requirement was added to the general prohibition, so that the judgment of the Secretary of War in abating such of these structures as seemed to him desirable and proper was unfettered by the requirements that his judgment on the necessity of the abatement should be submitted in each particular case to the verdict of a jury as to whether the Secretary's opinion that the structure was an obstruction to navigable capacity was in fact correct. Accordingly, it is apparent that the contention stated in the Special Master's report that the construction here contended for would require the conclusion that no wharf, pier, or other structure could be built without a special act of Congress is based upon a misapprehension of the nature and purpose of this provision.

It is stated that a pier, wharf, or other of the structures enumerated might be an obstruction to navigable capacity in a particular area, although to the advantage of navigation more broadly considered. If the argument intended to be made by this statement means that because a pier or wharf might slightly project into or over the waters, although not into the navigation channels of the waterway, so as to interfere in any manner with the use of the channel for a navigable waterway, it nevertheless would constitute an obstruction to the navigable capacity, because a vessel could not run over the area where the pier stood, the argument is specious and fails to take into consideration, the judicial decisions laying down what constitutes an obstruction to the navigable capacity. See *Yates vs. Milwaukee, supra,* p. 141. This argument likewise rests upon an additional fallacy. The general prohibition in the first part of this section is not against any obstruction to navigation, but against any obstruction to the navigable capacity of a waterway. Hence, a pier, dolphin, or other aid to navigation, which might be argued to constitute a technical obstruction to navigation at the precise

point of its location on a navigable waterway, would nevertheless improve the navigable capacity of the waterway and would not be within the general prohibition of the first part of this section. If on the other hand we are to adopt the construction of the Special Master, then, if the Secretary of War were to authorize the construction of a pier reaching entirely across the navigable channel of the Ohio River so as to cut off all navigation, it would be a valid act within the power of the Secretary of War, and require no affirmative sanction of the Congress of the United States. We submit that the construction of the complainants not only accords with the plain language of the statute, but accords with the rule of reason, while the construction of the Special Master does not.

If it be conceded that the erection of a pier which does not project into the navigable channel, would come within the literal prohibition of the first part of the section (which complainants submit is not the fact), the language should be construed in the light of reason, so as not to comprehend such a technicality having no relation to the purposes of the Act. This conclusion would follow from the construction of the Sherman Anti-Trust Act of 1890 by the Supreme Court. It will be recalled that that Act declares:

> "Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several states or with foreign nations, is hereby declared to be illegal." U. S. Comp. Stat. 1916, section 8820.

The words are as definite and commanding as any that could be written, although it is true that section 10 of the Act of 1899 may be considered just as compelling. The Supreme Court, faced with the interpretation of the Sherman Anti-Trust Act, *held,* by Chief Justice White in *Standard Oil Company vs. U. S.,* 221 U. S. 1, that the Act

should be construed in the light of reason and that as so construed it prohibited only those contracts and combinations amounting to an unreasonable or undue restraint of trade.

There remains to be considered the final provision of this section, which reads:

> "and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same."

The question is again presented—Is this provision an exception to the requirements of the general prohibition contained in the first part of the section? It will be noted again that this provision is in the conjunctive, and in the ordinary understanding of the English language imports something in addition to that which has gone before, and not a subtraction therefrom. As far as the construction to be derived from the language itself is concerned, everything that has been said with reference to the preceding provision regarding the building of wharves, etc., applies with equal force. Let us consider the acts enumerated in this provision for which it is said the recommendations of the Chief of Engineers and the Secretary of War are necessary: The provision states that it shall not be lawful to excavate or fill, or in any manner alter or modify the course, location, condition or capacity of any of the navigable waters of the United States without a Permit. Does it say that it shall not be lawful to alter them in such a manner as to obstruct their navigable capacity? The answer is clearly in the negative. It is immaterial whether the alteration will obstruct the navigable capacity,

or whether it will in fact increase the navigable capacity. Even though the act will increase the navigable capacity, it can not be done without the Permit of the Secretary of War. The contrary conclusion proceeds upon the false assumption that the section is intended to provide for acts which will necessarily obstruct the navigable capacity of the waters. Such is not the fact. The purpose and effect of the provision is cumulative, so that in order to perform such work, the work not only must not come within the prohibition of the first section against creating an obstruction to the navigable capacity of the waters of the United States, but in addition thereto, it must be approved by the Chief of Engineers and the Secretary of War. The same reasons for this cumulative requirement apply, as were heretofore stated, with reference to the second provision of the Act relating to the construction of wharves, etc. An additional reason applies to both this and the preceding section. It not infrequently happens that at the time of the proposed erection of the structures enumerated in the second provision, and of the doing of the acts enumerated in the third provision, they would not, under the then existing conditions, create an obstruction to the navigable capacity of the particular channel or waterway, and hence would not be illegal under the general prohibition of the first section; but that under tentative plans of improvement of the War Department and looking to the future, such structures would become, within their probable useful life, obstructions to the navigable capacity of the channel on carrying out the proposed improvements. Then the Secretary of War would be confronted with the problems and the burden of abating these structures—legal when erected. By making the erections of these structures conditional upon the permission of the Secretary of War, even though they do not constitute an obstruction to the navigable capacity of any waterway, the Secretary of War retains

control over their erection so that he may provide against the circumstances just described in the light of the future plans of the Department, and so that by the revocation of those Permits at any time the structures become *ipso facto* illegal, regardless of whether or not, they are in fact obstructions to the navigable capacity of the waters in question. In addition to these considerations there are conditions such as are described in *Philadelphia vs. Stimson,* 223 U. S. 605, 629, where it was pointed out that the practice of some riparian owners of filling in the land between the high and low watermark so confined the Allegheny River that in time of flood the waters were unduly confined with destructive effect. Many of these acts would not by any stretch of the imagination obstruct the navigable capacity of the River, but they were undesirable from the standpoint of preservation of channel and public works therein. Under the cumulative sections of this Act they could not be done without the permission of the Secretary of War, even though they did not constitute an obstruction of navigable capacity.

But, it is suggested that under such a construction, such structures are erected and acts performed by the owner at the peril that they may be subsequently determined to be in fact obstructive to navigable capacity, and abated. There certainly is nothing novel in such a situation. Even a structure affirmatively authorized by a special act of Congress may be summarily abated at any time that either a subsequent Secretary of War or subsequent Congress changes its mind with regard to the structure and the result is *damnum absque injuria.* Thus in *Greenleaf Lumber Company vs. Garrison,* 237 U. S. 251 it was held that where complainant's wharf was built in 1873 through shallow water out to the navigable channel of the stream, where such wharf was within the port-line established by the Norfolk wardens under authority of the State

of Virginia, where fourteen years later, in 1890, the Secretary of War established exactly the same line, and thus left the complainant's wharf a lawful structure within the harbor line, where Congress, by the Act of March 4, 1911 (36 Stat. 1275), made an appropriation to purchase the land and widen the channel, nevertheless, the Secretary of War might lay a new harbor line, leaving the complainant's wharf outside thereof, and the wharf and soil upon which it stood could be taken from the owner and the result was *damnum absque injuria.* We fail to see where the construction of the Special Master has placed those erecting such structures in any less precarious condition, or where the construction here urged by the complainants will place them in any more precarious situation. In fact, the construction of the Special Master increases the already hazardous position occupied by riparian proprietors.

It is submitted that the construction of this statute here urged by the complainants not only comports with the clear meaning of the explicit language used by Congress, but that the contrary construction leads to unreasonable and ridiculous results. Under the complainants' construction this section is a well-rounded policy, consistent in all its parts and adapted in every way to carrying out the obvious purpose of Congress. It provides not only that it is unlawful to create any obstruction to navigable capacity of the waters of the United States, but in addition thereto the acts enumerated in the second and third provisions of the Section can not be done, even though they do not obstruct navigable capacity, without a Permit of the Secretary of War. These provisions leave the control of the Secretary over these waters unfettered and render it unnecessary to submit the question of whether such structures and acts constitute an obstruction in fact to navigable capacity, because the absence of a Permit

renders them illegal, without regard to their obstructive character. If we adopt the other construction, we must say that Congress has declared that no obstruction shall be created to the navigable capacity of the waters of the United States unless it has been authorized by the Secretary of War. If that is the meaning of the statute, the question instantly arises—Why was the first section put in the Act at all? It can hardly be said that it was put into the Act for the purpose of nullification immediately thereafter. If the construction of the Special Master is correct, we challenge anyone to name any obstruction to the navigable capacity of the waters of the United States which would not be comprehended within the enumerated structures and acts of the second and third provisions. If the Master's construction is correct, there is no act affecting the navigable capacity of waters of the United States and not specifically covered by some other Act of Congress or Section of this Act which would not be covered by the second and third provisions of Section 10. Then we have the situation that aside from bridges, covered by Section 9 of the Act of March 3, 1899, any and every obstruction of the navigable capacity of the waters of the United States can be authorized by the Secretary of War. The question then again instantly presents itself—If the Master's interpretation of the statute is correct, why did the Congress use several hundred words to say in effect "No obstruction of the navigable capacity of the waters of the United States shall be lawful unless it has been authorized by the Secretary of War"?

What are the further results of adopting the Master's construction? We must conclude that Congress, which, in Section 9 of the same Act in which the Section under discussion was enacted, expressly retained the right to say whether a bridge should be constructed over any interstate river, such as for instance the little St. Croix River be-

tween Minnesota and Wisconsin, delegated to the Secretary of War the right and power to determine, without limitation, what obstruction might be created to the navigable capacity of a waterway with 8300 miles of shoreline littoral to which were states embracing nearly one-half of the population of the nation, with the attendant depreciation of all of the Federal improvements which had been placed by that Congress or its predecessors in these navigable waters. We reach a conclusion that Congress has reserved to itself alone the right to determine whether a little bridge should be constructed across an insignificant river, but has delegated to the Secretary of War the right to determine whether the Great Lakes should be drained into the Mississippi River. If the Secretary of War can authorize an obstruction of six inches to the navigable capacity of the Great Lakes-St. Lawrence system with all of the immense and immeasurable damage found in this case, then who is to say that he can not authorize an obstruction of one foot, of two feet, or of ten? Is it conceivable that Congress ever intended to delegate such a power, and this in the face of the fact that it is necessary to do violence to the plain language of the Congressional act in order to reach such a conclusion?

2.

History of the Rivers and Harbors Act of 1899.

The Special Master, after reviewing the provisions of the Rivers and Harbors Act of September 19, 1890, called attention to the change in the language of the general prohibition with respect to the creation of obstructions to the navigable capacity of the waters of the United States, to "affirmatively authorized by Congress" from "affirmatively authorized by law." The Master then states "This change in the words of the first clause of Section 10 was for the purpose of making mere State authorization inadequate.

Sanitary District vs. United States, 266 U. S. 405, 429. *United States vs. Bellingham Bay Boom Company,* 176 U. S. 211." *Master's Report 179.* In view of this apparent argument that the only purpose of the adoption of the Rivers and Harbors Act of March 3, 1899 was to overcome the decision in the *United States vs. Bellingham Bay Boom Company, supra,* it is desirable to examine the history of this Act. By Section 2 of the Rivers and Harbors Act of June 3, 1896, Congress directed the Secretary of War as follows:

> "To cause to be prepared a compilation of all general laws that had been enacted from time to time by Congress for the maintenance, protection, and preservation of the navigable waters of the United States, and to submit the same to Congress with such recommendation as to *revision, emendation, or enlargement* of the said laws as in his judgment would be most advantageous to the public interest."

Pursuant to this direction the Secretary of War caused a bill to be drafted which was transmitted to Congress by the Secretary of War February 10, 1897, and printed as House Executive Document No. 293 of that session. To show the care with which this Bill was drafted we quote from a lecture delivered by Judge G. W. Koonce, officer of the Corp of Engineers, with forty years experience in the consideration of questions involving the study, interpretation, and application of laws relating to the improvement and protection of navigable waterways. In a lecture before the Engineering Class at Fort Humphreys, Virginia on April 23, 1926, Judge Koonce said:

> "This (the proposal of the War Department for the revision and enlargement of the laws for the protection of navigable waterways) was accepted by the Committee and was made section 2 of the act of June 3, 1896. Immediately after the passage of the act I took up the, to me, very agreeable task contemplated

by this section. All the previous laws were carefully compiled and studied, and a complete bill was drafted covering all phases of the subject, and embodying such changes and additions as the experience of the department, through a long period of administration, showed to be essential for the effective conservation of the interests of navigation. This bill consisting of 13 sections was submitted to a number of the ablest and most experienced of our engineer officers for consideration and suggestive criticism, and was approved by them. It was transmitted to Congress by the Secretary of War February 10, 1897, and was printed as House Executive Document No. 293, of that session."

The Bill drafted by the War Department slumbered unnoticed for some time, but was later incorporated in the Rivers and Harbors Act of March 3, 1899 and became Sections 9 to 20 of that Act. Thus we see that Sections 9 and 10 of the River and Harbor Act of March 3, 1899 were drafted prior to February 10, 1897. The case of the *United States vs. Bellingham Bay Boom Company, supra,* was not decided until January 29, 1900, although it had been decided in the lower court June 28, 1897. It, therefore, cannot be said that an Act, drafted prior to February 10, 1897 and enacted into law on March 3, 1899, was adopted merely for the purpose of avoiding the effect of a decision of this Court.

Hence, it is obvious that the Act of March 3, 1899 was adopted in order to provide a new and comprehensive law carefully worded so as to state what was deemed to be the best policy of the Federal Government for the preservation of the navigable waters of the nation. It was an amplification and revision of the old law. The plain language of the statute must not be cavalierly disposed of by the simple statement that it was passed for the purpose of avoiding the effect of a court decision. We invite attention to the extreme care with

which this Act was drafted by the ablest legal and engineering officers of the War Department and approved by the experienced members of Congress after it had been before them for nearly three years, in order to show that the plain language of such carefully considered legislation is not to be lightly cast aside.

3.

There has been no practical construction of Section 10 of the Act of March 3, 1899 sustaining the construction adopted by the Special Master.

The Special Master cites what is alleged to be the practical construction of this Act by the War Department in support of his interpretation, and quotes from the opinion of the Acting Attorney General (February 13, 1925, 34 Op. Atty. Gen. 410, 416) as follows:

> "I am informed that for a long period of years it has been the practice of the War Department to issue Permits under Section 10 of the Act of March 3, 1899, without requiring that the particular project be first authorized by Special Act of Congress." *Master's Report 185.*

This statement is no evidence of a practical construction, by the War Department, authorizing the Permit of March 3, 1925. The structures and acts covered by the Permits of the Secretaries of War through the long period of years mentioned, were of a very different character. Permits were required for all of the structures and acts enumerated in the second and third parts of Section 10, regardless of the fact that they did not constitute an obstruction in fact of the navigable capacity of waters of the United States. Thus, in 1913 Secretary Stimson pointed out that the question involved with relation to the issuance of a Permit for the diversion of water from the Great Lakes "is quite different in character, for example, from

the question of fixing the proper location of a pierhead line, or the height or width of a draw bridge over a navigable stream—fair samples of the class of questions which come to the Secretary of War for decision under the above-mentioned Act of 1899." *Master's Report 64.* In Section V, 1, pages 138 to 151, *supra,* it has been shown that; Under Section 10 a permit of the Secretary of War was required for the erection of all structures and the performance of all acts enumerated in the last two parts of Section 10, where such structures and acts did not create an obstruction to the navigable capacity of the waters of the United States. *These,* of course, were the character of structures and acts for which the War Department had issued Permits for many years without a special act of Congress. That is a very different thing from saying that the Secretary of War had been authorizing all manner of obstructions to the navigable capacity of the waters of the United States without a special act of Congress for a long period of years. The latter would have to be the fact to lend any aid to the construction adopted by the Special Master.

The question of whether the Secretary of War had the power or attempted to exercise the power to authorize any work—no matter how destructive to navigable capacity—without a special act of Congress, presents very different considerations. It must be remembered that the question at issue here, involving the power of the Secretary of War to authorize Chicago to divert immense quantities of water from the Great Lakes and thus create an obstruction to navigable capacity, unparalleled in degree and extent, is unique and not to be compared with the location of a dolphin. We submit that there is no evidence, and we do not believe that any can be produced, of any practice of the War Department to authorize obstructions to the navigable capacity of waters of the United States aside from the

diversion of the Sanitary District of Chicago. Hence, if there is any practical construction in any degree sustaining the interpretation of the Special Master, it must rest upon the Permits to the defendant.

Therefore, the question arises—What has been the attitude of the War Department with respect to that diversion? We find that prior to the opening of the Drainage Canal, the Sanitary District applied for the Permit of March 3, 1896, to do work in the Chicago River. The District Engineer indicated great doubt as to the power of the War Department to authorize any diversion with the attendant lowering of the Lakes, but stated that inasmuch as the then pending application did not involve diversion, the Permit could be granted. *Joint Abstract 133.* The Secretary of War, in his Permit of July 3, 1896, stated that it was not to be interpreted as approval of the plans to divert water. *Master's Report 34-35.* A similar condition was incorporated in the Permit of November 16, 1897. *Joint Abstract 133.* On April 4, 1899, in passing on the application to open the drainage canal, the District Engineer stated that it was a strange fact that Chicago had proceeded with this plan without inquiring whether the United States would permit diversion from the Great Lakes, and that the question was too great and important for him even to venture an opinion thereon, or to be authorized by executive officers, and should be referred to Congress. *Joint Abstract 134, 136.* In the Permit of May 3, 1899, the Secretary advised that he would submit the matter to Congress for its consideration and ultimate decision. *Master's Report 39.* Other Permits contain similar statements. *Master's Report 40.* In 1907 the Chief Engineer specifically declared that it was beyond the powers of the War Department to authorize a diversion which would create an obstruction to the navigable capacity of the Great Lakes. *Joint Abstract 141, 142.* In 1910 the suc-

ceeding Chief of Engineers reaffirmed this position. *Joint Abstract 143.* In 1912 a memorandum of the District Engineer at Chicago, prepared under instructions of Secretary Stimson, reaffirmed this position. *Joint Abstract 144, 145.* In the decision of January 8, 1913 Secretary Stimson expressed grave doubt as to his authority as Secretary of War to authorize such an obstruction to the navigable capacity of the Lakes and referred to the fact that his predecessors seemed to have had similar doubts, although Secretary Stimson found it unnecessary to rest his decision on that ground, because the application was without merit on the facts. *Master's Report 63, 64; Joint Abstract 147.* There is no further practical construction with reference to this diversion prior to the Permit of March 3, 1925, when the Secretary of War entertained such doubts as to his authority to authorize such an obstruction that he sought the opinion of the Attorney General of the United States as evidenced by the report of the Special Master. *Master's Report 185.* Hence, this contention of a long-settled practical construction by the War Department of its power to authorize an obstruction to the navigable capacity of the waters of the United States simmers down to the fact that by March 3, 1925 the Secretary of War felt such grave doubts as to his authority that he was unwilling to act until he secured the advice of the law branch of the Federal Government. It is peculiar, indeed, that he found it necessary to do so if a long-considered practice through the years had placed this question on the firm foundation of undoubted, long-established, practical construction. Hence, it would appear that instead of long-continued conviction of power, the belief that the War Department did not have the power had persisted up to and included the issuance of the last Permit, even if the Department's doubt of the existence of its power suddenly stopped then. In connection with the opinion of Acting Attorney General Beck of February 13,

1925, it is interesting to note that after a labored argument for the purpose of sustaining a view of the power of the Secretary of War previously determined to be desirable for the purpose of supplying a *modus vivendi* for an alleged emergency, it is said:

> "This view as to the nature of your powers seems to me a reasonable construction of the pertinent acts of Congress. It is, in any event, the only construction that would prevent irreparable harm, and, therefore, presumably, it is a construction which Congress itself would favor; and I therefore so advise you."

In short, the Acting Attorney General with apparent doubt of the legality of the procedure, advises the Secretary of War nevertheless to "take the bull by the horns" and issue the permit, whether legal or not, as the only existing means of extricating Chicago from the alleged precarious situation in which it had been placed by the illegal acts of the Sanitary District. It should be noted that this advice is directly contrary to the interpretation of this section urged in the Government brief of Mr. Beck, the then Solicitor General of the United States, but now Chief Counsel for the Sanitary District. In that brief Mr. Beck urged the same construction as now urged by the complainants. See brief of appellee, *Sanitary District vs. United States,* pages 174, 175, and synopsis of briefs *Sanitary District vs. United States,* 266 U. S. 405 at 419.

In connection with all of these Permits for this diversion this fact must be borne in mind: Chicago had persisted throughout the years in wilfull disregard and defiance of the Federal Government. It was unwilling to adopt other and possibly more expensive methods for the disposal of sewage, or to cut down its profits from generating electric power by the abstraction of the waters of the Lakes. It presented each Secretary of War with a *fait accompli.* It said, in effect:

> "By our own wilfull misconduct we have placed ourselves and our citizens in a position where the immediate cessation of this diversion would be disastrous to the health of all the people of Chicago. What are you going to do about it? Are you going to insist on the termination of our lawless acts and imperil the health of all of the people of Chicago?"

These Secretaries of War were presented with the question of whether they should attempt to keep some supervisory regulation over this diversion, whether legal or not, or let Chicago proceed on its lawless way. These Permits, extorted from reluctant Secretaries of War, with fear, and in some cases conviction, that the Permit was beyond their power, it is now attempted to use as a practical construction against the complainants. It would be as reasonable to contend that an act enforced at the point of a gun was a practical construction on the part of the victim of his powers. Of course, it requires no argument to show that a real practical construction by the War Department could not prevail against the plain language of the statute.

In this connection the Special Master cites *Cummings vs. Chicago,* 188 U. S. 410, and interprets the decision as a construction of Section 10 to the effect that no act of Congress is necessary to authorize an obstruction to the navigable capacity of the waters of the United States. The question in that case was whether in order to construct a dock it was necessary to secure a building permit from the proper Department of the City of Chicago. There was no suggestion that the dock constituted an obstruction to the navigable capacity of the waters. The case has no relevancy to the point at issue. As was pointed out in Section V, 1, (pp. 138-151, *supra*) a Permit was necessary to construct this dock, although it did not obstruct the navigable capacity of the River. This case merely held that in addition thereto the permittee must comply with the local

laws. If the case had raised the question of whether the dock would be an obstruction to navigable capacity, the case would be in point; but such is not the fact.

4.

The judicial construction of Section 10.

We now pass to the question of what, if any, judicial construction of Section 10 of the Rivers and Harbors Act of March 3, 1899, has been had with reference to the particular point at issue. It has already been pointed out that *Cummings vs. Chicago,* 188 U. S. 410, constitutes no authority whatever for a construction of this Section to the effect that the Secretary of War is empowered to authorize the creation of an obstruction to the navigable capacity of the waters of the United States. The Special Master cites *Maine Water Company vs. Knickerbocker Steam Towage Company,* 99 Me. 473, upon the question of whether the affirmative authority of Congress must be evidenced in the cases covered by the second and third provisions of Section 10. That case related to the right of the Water Company to lay a pipeline across the Kennebec River upon obtaining a Permit from the Secretary of War. It does not appear that the pipeline was laid in such a way as to create an obstruction to the navigable capacity of the waters of the United States. Hence, the question of whether the Secretary of War had authority to authorize an obstruction was not involved; it was merely one of those cases where the Permit of the Secretary of War was required under the cumulative provisions of the second part of Section 10, although it was not an obstruction to navigable capacity. Hence, the discussion of the Maine Court is not only *obiter* but proceeds upon an obvious fallacy. It assumes that if the Secretary of War were not empowered under the second and third parts of Section 10 to authorize the obstruction of the navigable capacity of the waters of

the United States, then no one of those structures could be erected without a special act of Congress. The error in this assumption has already been demonstrated in Part V, 1, *ante* pages 138-151. It is said that this case was cited with apparent approval, although not directly upon this point, in *Southern Pacific Co. vs. Olympian Dredging Company,* 260 U. S. 205, 210. Since it was not cited on the point at issue, it can hardly be said to gain weight thereby on that point. However, it should be noted that the real groundwork of the decision of the *Southern Pacific Co. vs. Olympian Dredging Company, supra,* was that the Railroad Company had not been guilty of any actionable negligence without regard to the effect of the Permit of the Secretary of War. In this case the Railroad Company had cut off the piles of an old bridge in a careful and competent manner so that there was, in fact, no obstruction to navigation. Twenty-two years later, as the result of the operations of the Federal Government, and not due to natural causes, the bed of the River was lowered so that the stumps of the piles protruded and caused damage. Hence, it was held that there was no negligence. The court quoted with approval the decision of the District Judge as follows, (page 211):

> "While the Railroad Company was perhaps required to take notice of ordinary changes in the course of channel of the stream from natural causes and provide against any injury that might result from such changes, it could not, in my opinion, be required to take notice of such radical changes as occurred here by the acts of the government, over which it had no control, and which it had no reason to anticipate or provide against."

And in conclusion, the Court said, (page 212):

> "The obstruction did not develop until years afterward, and was due to causes which they were not

bound to anticipate and provide against, and for which they were in no degree responsible."

That this was the basis of the decision is shown by the following cases cited in its support:

The Plymouth, 275 Fed. 483;
The Douglass, 7 Prob. Div. (1882) 157.

All that is involved in the decision in *Sanitary District vs. United States,* 266 U. S. 405, 428-429, which is in part quoted by the Special Master, is that the obstruction of the navigable capacity of the Great Lakes is clearly prohibited by the first part of Section 10. The question of whether the Secretary of War had the authority to authorize an obstruction to the navigable capacity of the waters of the United States was not before the court nor involved in the decision. The Federal Government only asked to have the diversion enjoined as to the excess over 4167 c. s. f. It could have asked to have the whole of the diversion enjoined. Clearly it could ask for less; and it was not necessary for the Court to consider or determine the reason for not requesting a total cessation of the diversion.

While Section 10 of the Act of March 3, 1925 has not been construed by this Court with reference to the point here at issue, it was construed by the Circuit Court in *Hubbard vs. Fort,* 188 Fed. 987. The court held that under this section the Secretary of War was without power to authorize an obstruction to the navigable capacity of the waters of the United States but that such an obstruction could only be authorized by an Act of Congress. In the course of the opinion,—pages 992-993, the court said:

"So far as applicable to the present question, such section may be summarized thus: First, the creation of any obstruction to the navigable capacity of any waters of the United States is prohibited unless af-

firmatively authorized by Congress; second, it shall not be lawful to build any structure in a navigable river or water of the United States, except on plans recommended by the chief of engineers and authorized by the Secretary of War; and, third, it shall not be lawful to excavate or fill the channel of any navigable water of the United States unless such work is recommended by said Secretary of War prior to beginning the same."

We quote further from the discussion of this act in *Hubbard vs. Fort, supra,* pages 996-997:

"If Congress intended that as to all other obstructions not prohibited by section 9, no affirmative action by Congress should be necessary, but that they might be constructed upon obtaining the permission of the Secretary of War it used singularly inapt and ambiguous language in expressing such intention.

"The use of the word 'authorize' instead of 'approve' does not change the Secretary of War's act from permissory to plenary. Two of the definitions of the word 'authorize' are to approve of; to formally sanction. *Cent. Dict. & Cyc.* What does the Secretary of War authorize? Not the building of the structures mentioned in the second part of this section, but the plans to which such construction is to conform. And what does he authorize as to excavating, filling, altering, etc., of the channel of navigable waters, but the commencement, the character, and the manner of doing such work? While the language here employed is not as felicitous and clear as it might be, yet, when it is considered that Congress here revising and amending, any other interpretation than that such official action by the designated executive officer was to be had only after the initial power to do such works shall have been procured from Congress would be to unnecessarily limit the plain and unambiguous language used in the first part of this section by which full control over all the works in interstate waters was kept in Congress itself."

Such cases as the *Monongahela Bridge Co. vs. U. S.*, 216 U. S. 177, cited in *Southern Pacific Co. vs. Olympian Dredging Company, supra,* bring nothing to the construction of this Section on the point at issue. That case merely involved the construction of Section 18 of the Rivers and Harbors Act of March 3, 1899, wherein the Secretary of War was authorized to require the removal of an obstruction to navigation in the form of a bridge, after notice to parties in interest and opportunity to be heard, in the event that he found that the bridge was in fact an obstruction to navigation. In the instant discussion of Section 10, the question is not what Congress could have done, but what it did; and, secondly, the granting of power to the Secretary of War to require the removal of a structure which has been determined to be an obstruction in fact to navigation, and the granting of power to the Secretary of War to authorize the creation of obstructions to the navigable capacity of the waters of the United States present very different questions. Any action under Section 18 could not be other than a benefit to the navigable capacity, whereas, under the construction of Section 10, adopted by the Special Master, the action of the Secretary of War could obstruct or destroy any or all of the navigable waters of the United States.

It may be further pointed out that the construction of the statute in *Hubbard vs. Fort, supra,* accorded with the construction adopted by the War Department in this respect. In his lecture before the School of Engineers on April 23, 1926, Judge Koonce said:

> "In one of the early cases it became necessary for the department to consider the question whether the second clause of this section so qualifies the prohibitory provision of the first clause as to confer on the Secretary of War power to authorize obstructions to navigable capacity. In other words, notwithstanding the positive prohibition in the first clause, can the

second clause be construed as a declaration by Congress that any work, however destructive it may be to navigable capacity, may be done provided it is recommended by the Chief of Engineers and authorized by the Secretary of War. On this question the Chief of Engineers maintained:—

"That the essence of the whole section is contained in the first clause, the obvious purpose of which is to prevent the execution of any work or the doing of any act that will obstruct, injure, or destroy the navigable capacity of any navigable water unless expressedly authorized by Congress:—that the succeeding clause making it unlawful to build any structure, or to modify the condition or capacity of a navigable water, without the prior recommendation of the Chief of Engineers and authorization of the Secretary of War, was intended to insure the accomplishment of the aforesaid purpose, and not to empower them to authorize obstructive works:—that the effect of this latter clause is to necessitate the submission of every project of the kind to the Chief of Engineers and the Secretary of War, and to commit to them the duty of investigating and determining whether or not the project will obstruct or injure navigability:—that if these officers find as a fact that a projected work will not amount to an obstruction to navigable capacity they may authorize it, but if they find that it will be such an obstruction the affirmative action of Congress must be sought and obtained. This interpretation of the statute subsequently received judicial support, as you may see by referring to the case of *Hubbard v. Fort,* 188 Fed. 987."

See also to same effect Opinion of Attorney General Wickersham, 27 Op. Atty. Gen. 327 at 331.

Moreover, whatever construction may be given to this statute, it can not be construed to empower the Secretary of War to authorize the diversion of navigable waters of the United States and the consequent destruction or obstruction of their navigable capacity for local power and

sanitation purposes. Attention was called to this fact by the court in *Sanitary District vs. United States,* 266 U. S. 405, at 431 where the court said:

> "It is doubtful at least whether the Secretary was authorized to consider * * * the sanitary needs of Chicago."

Certainly, the Secretary was not empowered to authorize the diversion and destruction of the navigable capacity of the waters of the United States for such purposes. It is conclusively established by the evidence that the Secretary did attempt to authorize this diversion for sanitary and power purposes and for those purposes alone. See Fact Brief, pages 17-32, *supra.* It is submitted that Congress itself could not authorize the diversion for such purposes and with such consequence, but in any event, it is clear that Congress never intended and never in fact conferred such power upon the Secretary of War by Section 10 of the Act of March 3, 1899.

VI.

WHETHER THE PERMIT OF MARCH 3, 1925, AND ITS CONDITIONS, ARE VALID.

The foregoing statement of this question by the Special Master in his preliminary enumeration of the questions of law involved, is narrower than his statement of the question preliminary to his detailed discussion thereof, where the question is stated to be not only as to the validity, but as to the *effect* of the Permit of March 3, 1925. *Master's Report 191.* In any event, the question is: First, as to the validity of the Permit of March 3, 1925, and, second, as to its effect. The contentions of the complainants are, first, that the Permit of March 3, 1925, is invalid, and, second, that if said Permit were valid, pursuant to Section 10 of the Act of March 3, 1899, it would constitute no defense to this bill.

The contentions of the complainants that the Permit of March 3, 1925, is invalid, because it is not within the terms of Section 10 of the Act of March 3, 1899, and because if it were otherwise within the terms of that statute, a diversion obstructive to navigable capacity for the purpose of local sanitation and power is not comprehended within the terms of said statute, has been discussed in Section V *ante* pp. 138-166. However, assuming that the issuance of the Permit of March 3, 1925 was a lawful exercise of power validly conferred upon the Secretary of War by Section 10 of the Act of March 3, 1899, there remain to be considered two questions: First, has the permit been rendered void and inoperative through violation of its terms by the Sanitary District? Second, if the permit has not been voided by violation of its terms, does it constitute a defense to this bill?

1.

The Sanitary District has voided the Permit of March 3, 1925, by violation of its terms.

If the Permit of March 3, 1925, constitutes a valid consent of the Secretary of War to the abstraction of these waters, that consent was based upon and made operative upon the observance of certain conditions. Among these conditions were included: (1) That the instantaneous maximum diversion should not exceed 11,000 c. s. f.; (2) That there should be no unreasonable interference with navigation by the act authorized; and (3) That the City of Chicago should carry out a prescribed plan for the metering of its domestic water supply. It is submitted that the uncontradicted facts in the record and the unchallenged findings of the Special Master conclusively establish the violation of the first two conditions enumerated. On the facts which have arisen since the submission of this cause to the Special Mas-

ter on June 3, 1927, and which the defendants cannot deny, the third condition has been violated and ignored. See Fact Brief, Part VII, pages 55-57, *ante*. The Special Master recognizes that there has been an unreasonable interference with navigation by the acts performed under color of this Permit, but seeks to avoid the effect of the violation of these conditions on the ground that the conditions were imposed for the purpose of reserving the right of immediate revocation by the Secretary of War. This argument is untenable for two reasons. First, the tenth condition of the Permit of March 3, 1925, specially reserves the power of the Secretary of War to revoke the Permit at will for any or no reason. Second such a Permit would be revocable at the will of the Secretary of War in the event that it created an obstruction to navigation or navigable capacity without any reservation in the Permit whatever. So that it is clear that it cannot fairly be said that these conditions were for the purpose of reserving or preserving the control of the Secretary of War, or the right of the Secretary of War to revoke the Permit before it expired according to its terms. On the contrary, the conditions of the Permit are express limitations on and conditions of any authority which can be claimed thereunder; and said Permit cannot be asserted as an authority for any acts in excess or in violation of such conditions. It is said that condition (1) with respect to creating unreasonable interference with navigation was merely to provide for the manner of withdrawing the water. *Master's Report 195-196.* The Permit clearly provided that the water should not be withdrawn in excess of a mean annual average of 8500 c. s. f. and an instantaneous maximum of 11,000 c. s. f. This provided for the *manner* in which the water should be withdrawn. What other manner was there in which the water could be withdrawn? If the condition against causing an

interference to navigation had no application to the quantity of water withdrawn in relation to its effect upon navigation, what possible effect could it have upon, or possible relation could it have to, the withdrawal of this water. If this Permit of the Secretary of War was valid, it had the effect of a statute; and it would be a novel principle that a person, specially injured by the violation of the conditions or limitations of a Federal statute, could not maintain an action to redress such grievance, but that the violator would be fully protected by the statute which he had infringed.

The conclusive character of the evidence of such violation has been discussed in the Fact brief and will not be repeated here. *Ante* pp. 55-56.

2.

If the Permit has not been voided by the violation of its terms, it nevertheless does not constitute a defense to this bill.

If the Permit of March 3, 1925, purports to authorize any abstraction of the water of the Great Lakes, which would injure their navigable capacity, such a grant would be in derogation of the public rights and should, therefore, be strictly construed against the grantee or permittee. *Louisville Bridge Co. v. United States,* 242 U. S. 409. Construing the Permit of the Secretary of War in the light of the recognized rules of construction, it only purports to authorize the Sanitary District to abstract so much of the water of the Great Lakes as will not injure their navigable capacity, but not exceeding 8500 c. s. f. in any event. The District is limited to such quantity as will not injure the navigable capacity of the Great Lakes, no matter how small that quantity may be. Under the state of the record in this case, that amount certainly cannot be in excess of 1000 c. s. f.

The Permit of March 3, 1925, was prefaced by the following note:

> "It is to be understood that this instrument does not give any property rights either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to private property or invasion of private rights, or any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining *State assent* to the work authorized. **It merely expresses the assent of the Federal Government so far as concerns the public rights of navigation.** (See *Cummings v. Chicago,* 188 U. S., 410.)"

According to the construction adopted by the Special Master, the only effect of this note is to require the assent of the State of Illinois under the doctrine of *Cummings v. Chicago,* 188 U. S. 410. The Special Master construes this language as though it read: "That it does not authorize any injury to private property or invasion of private rights in the State of Illinois, but you are hereby authorized to inflict any damages on private property or invade any private rights you may see fit in the States of Wisconsin, Michigan, Ohio, Pennsylvania and New York."

It is said that the act is to be done only in the State of Illinois. This was a Permit to take water. The question is immediately presented: From where is the water to be taken? The uncontradicted evidence in this case is that the mean annual contribution of the State of Illinois under natural conditions to the net water supply of the Great Lakes system is 503 second feet. There has been, and is being taken, approximately 8500 c. s. f., and the right is asserted under this Permit to take approximately 10,000 c. s. f. From where does the additional 8000 or 9500 c. s. f., come? The obvious fact is that it comes directly from Wisconsin and Michigan. If the logic of the Special

Master is sound, then in the event that this 8000 or 9500 c. s. f. not contributed by Illinois was abstracted through a pipeline, having its opening for the admission of water directly in the waters of Michigan and Wisconsin, but controlled by a faucet at Chicago on the other end of the pipeline, we would reach the conclusion that the act was performed in Illinois, because the faucet was turned at Chicago. This is not merely to sacrifice substance to form which would be unthinkable in a court of equity, but it is to fly in the face of the physical facts.

But the end is not yet. The practical results of such logic are even more alarming. Under this doctrine the Sanitary District is required to render compensation for all injury to private property and invasion of private rights in the State of Illinois for whose benefit the diversion is had. This is not a theory, but the settled law. *Beidler v. Sanitary District of Chicago,* 211 Illinois, 628. On the other hand, the Sanitary District may inflict, and does inflict, immensely greater damage to private property and private rights in the complainant states with immunity from granting compensation. Here then a state with sixty miles of shore line out of a total of 8300 miles on this waterway by this construction of the Permit is required to give compensation within such state, but may inflict any amount of damage and does inflict immeasurable damage upon the property along 8240 miles of the shore line with immunity from liability. Such a construction is at variance with every principle of equity and good conscience.

Complainants submit that under the uncontrovertible physical facts of this case from 8000 to 9500 c. s. f. of water is directly removed and abstracted from the territory of Wisconsin and Michigan, that this act is performed in those states and that under the doctrine of *Cummings v. Chicago, supra,* the assent of those states is required. Otherwise,

it is a Permit to Illinois to raid its sister states and appropriate their property and natural resources without their consent and without compensation.

However, there is an even greater difficulty in construing this Permit as a defense to this action. It must be remembered that the damages inflicted by the Sanitary District fall into three classes: First, the direct damages to navigation, second, the immense damages to riparian property without any regard to the injury to navigation, and third, the damage to the proprietary and quasi-sovereign rights of the complainant states, including the riparian damage to the great parks upon these shores. The questions are then presented—Is the Permit of March 3, 1925, a sword or merely a shield, and if it is merely a shield, to what extent and for what purposes does it constitute a shield? Does an *ex parte* permit of the Secretary of War clothe the permittee with all the powers of the Federal Government but with none of its responsibilities? We must distinguish between a permissive consent or waiver of the Secretary of War and an affirmative act of the Federal Government itself. Thus, in *United States v. Chandler-Dunbar Co.*, 229 U. S. 53, there was an act of the Federal Government itself appropriating the waters and incidentally the water power of the power company to the purposes of navigation. Could the Secretary of War have authorized another power company to appropriate the power rights of the Chandler-Dunbar Company for power purposes?

We believe the law may be made clear by a comparison of two cases. In *Scranton v. Wheeler,* 179 U. S. 141, the Federal Government constructed a pier in the St. Mary's River on the submerged lands in front of the riparian property of Scranton, for the improvement of navigation, in such a manner as to cut off his access to the navigable channel.

It was held that this was *damnum absque injuria,* because the act of the Federal Government fell within the servitude upon riparian property with reference to the improvement of navigable waters by the United States. Now let us consider the case of *Cobb v. Commissioners of Lincoln Park,* 202 Illinois, 427. In that case Cobb asserted the right to construct a wharf on the submerged lands in front of Lincoln Park by virtue of a Permit issued by the Secretary of War under Section 10 of the Act of March 3, 1899. The question presented was not one of compliance with state regulations such as was presented in *Cummings v. Chicago, supra,* but it was one of property rights. The question was whether Cobb by virtue of this Permit obtained the right to erect a wharf on submerged lands in front of property belonging to another. It was held that the Permit of the Secretary constituted no authority whatever for infringing the rights of the riparian property owner. The correctness of the decision cannot be questioned. If the Federal Government had undertaken to erect a pier on the submerged lands in front of Lincoln Park for improvement of navigation, it would have had a clear legal right to do so, because the riparian property was subject to the servitude of the right of the Federal Government to improve navigable waters. However, it was not part of the servitude on the riparian property that a private individual might build a wharf on the submerged lands in front thereof and the servitude could not be so enlarged by a permit of the Secretary of War. The Constitution did not give private individuals, nor did it give the State of Illinois, the right to do either direct or incidental damage to riparian property owners on the navigable waters of the United States. In the course of its decision, the Supreme Court of Illinois after adverting to the rights of the general Government under *Scranton v. Wheeler, supra,* said: (439, 440)

"Appellant not having, by the law of this State, the right to construct a wharf over his neighbor's submerged lands without his neighbor's consent, could not acquire that right, without his neighbor's consent, by obtaining a license from the Secretary of War.

"* * * * * But such permission is not given to override the rights of the owners of the submerged lands. It is, as said above, a declaration by the guardian of the interests of the public at large that the proposed structure will not interfere with navigation. It is strictly permissive, and not an authorization by paramount authority to build the structure."

If the construction of the Special Master is correct, then a private individual may obtain the property right to construct a pier, wharf or do any other work in the waters in front of the riparian property of others no matter how injurious or destructive it may be to that property by virtue of the simple process of obtaining a Permit of the Secretary of War. Can it be contended that the servitude imposed upon riparian property for the improvement of navigation by the United States permits the Secretary of War to thus apportion private property rights as he sees fit? If so, the servitude of riparian property for the benefit of navigation relates not merely to the acts of the Federal Government in improving navigation, but comprehends the injury of riparian property by anyone, so long as he can get a Permit from the Secretary of War. This construction is contrary to every case which has ever been decided in the United States construing the effect of such Permit. In addition to *Cobb v. Commissioners, supra,* we invite attention to the following cases:

Such a Permit was construed in the case of *In Re Crawford County Levee & Drainage District,* 182 Wis. 404. There the Drainage District asserted its right to drain certain lands in the Winnesheik bottoms on the Mississippi River in a manner which would render non-navigable, some

of the sloughs and side channels of the Mississippi River on the authority of a Permit of the Secretary of War and on the further ground that the closing of these sloughs and side channels would improve navigation in the main channel of the Mississippi River. The court held that the Permit of the Secretary of War was a mere waiver of Federal objection as far as the rights of navigation were concerned, that it created no property rights in the permittee and constituted no authority for destroying navigable waters of Wisconsin or injuring private property and that the benefit, if any, to navigation on the main channel of the Mississippi River was immaterial, because the Drainage District had not been entrusted with the improvement of the navigable waters of the United States. In this connection the court said at page 412:

> "But it is claimed that the permit issued by the War Department grants federal authority to carry out the drainage scheme. In this plaintiffs are mistaken. The permit expressly states that it does not grant 'any infringement of federal, state, or local laws or regulations.' 'That there shall be no unreasonable interference with navigation by the work herein authorized,' and 'that no attempt shall be made by the permittee or the owner to forbid the full and free use by the public of all navigable waters at or adjacent to the work or structure.' "

With respect to the claim of improvement of the main channel of the Mississippi by the drainage district, the court said at page 415:

> "But however that fact may be, it is clear that the proposed district has no legal authority to destroy navigable waters of our state for the purpose of aiding the navigation of the main channel of the Mississippi River."

The same question was presented in *Attorney General ex rel. Becker v. Bay Boom W. R. & F. Co.,* 172 Wis. 363,

178 N. W. 569. The defendant likewise claimed the right to maintain a dike in a meandered inland lake in Wisconsin by virtue of a Permit from the Secretary of War. On that point, the court said pages 375, 376:

> "The federal permit expressly declares that it grants no property rights or exclusive privileges and that the free use by the public of the area inclosed is not to be prevented. The application for the permit and the grant of it presupposes that there was a body of navigable water; otherwise it was an idle ceremony. It is considered that the facts show that the construction of the dike was not sought by defendant for the improvement of navigation and that its location and construction is in fact an injury to the public easement and that the federal permit, in the light of the conditions upon which it is granted, does not vest defendant with the right to continue the dike, since it is an encroachment and injury to the enjoyment of the public easements of navigation and the rights of fishing and hunting."

In *Hubbard v. Fort,* 188 Fed. 987, defendant likewise asserted that a Permit of the Secretary of War was authority to perform the act without regard to the rights of the State of New Jersey or riparian property owners. The court overruled this contention and in the course of its opinion, page 999, said:

> "This is not a case of the United States government seeking to make a crossing of this interstate stream in the exercise of its governmental powers, but an attempt to override a sovereign state's opposition to the use of its submerged land by a corporation of its own creation, under the claim of being engaged in interstate commerce."

The same conclusion was reached by the court in *Wilson v. Hudson County Water Co.,* 76 N. J. Eq. 543, 76 Atl. 560, where the court at page 588 said:

> "* * * * * and, assuming that the permission of the general government to the excavation and laying of the proposed pipe line is necessary, such permission is not given to override the rights of the owner of the submerged lands, namely, the State of New Jersey, and it is, as said, the declaration by the guardian of the interests of the public at large that the proposed work will not interfere with navigation, and is strictly permissive, and not an authorization by paramount authority to do the work proposed."

The Permit of the Secretary of War was likewise held to be no authority to invade property rights, but to be a mere waiver or consent on the part of the federal government as far as rights of navigation were concerned in *Commonwealth v. Pennsylvania R. Co.*, 72 Pa. Sup. Ct. 353, *Thlinket Packing Co. v. Harrison Co.*, 5 Alaska, 471, *Columbia Salmon Co., v. Berg*, 5 Alaska, 538.

However, the fact that a Permit of the Secretary of War is no defense in this case, is conclusively established by *New York v. New Jersey*, 256 U. S. 296. This was an action to enjoin the State of New Jersey from dumping a large quantity of sewerage into Upper New York Bay through the agency of a sewage district, such as is involved in the instant case, on the ground that the resulting nuisance would be injurious to the health, property and welfare of the people of New York. The bill was filed in 1908. Immediately thereafter, the federal government intervened on the ground that the inadequacy of the proposed sewage treatment would result in injury to navigation and commerce as well as to government property. Subsequently, the federal government entered into a stipulation with the sewage commissioners acting under authority of the State of New Jersey, approved by the Secretary of War, whereby the federal government consented to the carrying out of the sewage project upon certain conditions as to treat-

ment of sewage and manner of its discharge into Upper New York Bay, which conditions were designed and accepted by the federal government as proper protection of the navigable waters against injury to navigation and commerce from the discharge of the sewage. This stipulation was then embodied in a Permit issued by the Secretary of War to the Sewage Commissioners. The government withdrew from the case and its petition was dismissed on May 16, 1910. Thereafter, under the direction of this Court, testimony was taken until 1913 to determine whether the discharge of the sewage under these conditions would in fact be injurious to the health, property and prosperity of the people of New York. However, the case was not brought on for argument until 1918, when the court in a decision appearing in 249 U. S. 202, directed the taking of additional testimony to determine, first, whether any practical modification of the proposed sewer system would reduce the polluting effect; second, whether any practical plan for sewage disposal would lessen the pollution effect of the sewage of New York City; and, third, as to the degree of pollution of New York Harbor and the change since the taking of the testimony was closed. After the taking of this testimony, the case came on for final disposition in this Court. After a consideration of the testimony, the Court said:

> "Considering all of this evidence, and much more which we cannot detail, we must conclude that the complainants have failed to show by the convincing evidence which the law requires that the sewage which the defendants intend to discharge into Upper New York Bay, even if treated only in the manner specifically described in the stipulation with the United States Government, would so corrupt the water of the Bay as to create a public nuisance by causing offensive odors or unsightly deposits on the surface or that it would seriously add to the pollution of it."

Whereupon the Court dismissed the bill without prejudice to a renewal of the application for an injunction if the proposed sewer in operation should prove sufficiently injurious to the waters of the Bay to injure the health, welfare or commerce of the people of New York. If the conclusion of the Special Master were correct, then this Court should have dismissed the bill as soon as the federal government made its stipulation; and surely, when the stipulation was incorporated in the Permit of the Secretary of War, the Court should have told New York:

> "It is immaterial whether or how much this pollution may damage the property, health or prosperity of the people of New York, because the Secretary of War has issued a Permit and that is final."

But this Court not only did not so dismiss the bill, but when the case failed on the proof, it reserved the right of New York to renew its application, not when or if New Jersey should perform this act without a Permit of the Secretary of War, but when or if it should appear that the act was in fact injurious to the health, property and prosperity of the people of New York.

The conclusion of the Special Master proceeds upon the assumption, that if the federal government is satisfied as far as interference with the rights of navigation is concerned, that is conclusive upon states or private parties having entirely different rights. If we were to assume in this case that the Permit was a defense against damages flowing from the interference with navigation of these waters, it clearly could be no defense to the second and third types of damages suffered in this case which are to the riparian property rights of the citizens of the complainant states and to the proprietary and *quasi*-sovereign rights of the states themselves. These damages would flow from this act regardless of whether there had ever been any navigation on the Great Lakes, and even though

they were in fact non-navigable. The same principle may be deduced from *International Bridge Co. v. New York,* 254 U. S. 126, 132.

Even if the federal government were engaged in a sanitation scheme, it could not do damage for that purpose without compensation. Suppose the federal government created a sanitation scheme for an army post or camp which created a nuisance in navigable waters. Could it injure the private property of other riparian owners without compensation for that purpose? Suppose a pier were erected as in *Scranton v. Wheeler, supra,* by the federal government, not to improve navigation, but in front of the riparian property on New York Harbor for the purpose of providing a landing place for vessels operated by the United States Shipping Board. Could it appropriate that property for that purpose without compensation? The conclusion of the Special Master fails to recognize, first, that this is not an act of the federal government in the improvement of navigation, but an act of the Sanitary District to whom the complainant states have delegated nothing, and second, that a waiver of objections to interference with navigation by the federal government, if valid, cannot justify or be a defense against damages, other than those arising from an interference with navigation, inflicted upon third parties. Here the damage is not limited to interference with navigation, but includes vast damage of an entirely different character. The cases may be searched in vain to find any judicial authority for such a construction. The inequity and injustice flowing from such a construction is clear. See also pages 124-125, *ante.*

In this section of the brief complainants have discussed or cited every case where it was contended that a Permit of the Secretary of War constituted affirmative authority to invade the property rights of a third party. Every one of them denies such a claim and is directly contrary to the conclusion of the Special Master.

VII.

AS TO THE PROVISIONS OF THE DECREE WHICH SHOULD BE ENTERED, IN THE LIGHT OF THE DETERMINATION OF THE FOREGOING QUESTIONS.

If the foregoing contentions of the complainants with respect to the principles of law applicable to this case are correct, they are entitled to a decree, dismissing the respective petitions of the intervening States and enjoining the State of Illinois and the Sanitary District of Chicago from abstracting any of the water of the Great Lakes-St. Lawrence system or watershed through the Chicago Drainage Canal and its auxiliary channels, or through or by means of any other method, device or agency.

Respectfully submitted,

JOHN W. REYNOLDS,
Attorney General of Wisconsin,

HERMAN L. EKERN,
Special Assistant Attorney General of Wisconsin.

R. T. JACKSON,
Special Assistant Attorney General of Wisconsin.

HERBERT H. NAUJOKS,
Assistant Attorney General of Wisconsin,

G. A. YOUNGQUIST,
Attorney General of Minnesota,

EDWARD C. TURNER,
Attorney General of Ohio,

NEWTON D. BAKER,
Special Assistant Attorney General of Ohio.

T. J. BALDRIDGE,
Attorney General of Pennsylvania.