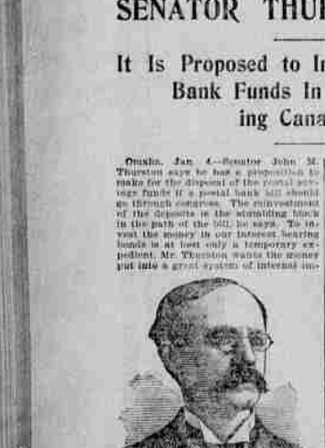
REVIVING A GREAT CANAL PROJECT.

A National Water Highway From The Mississippi to the Atlantic.

SENATOR THURSTON'S PLAN.

It Is Proposed to Invest Postal Savings Bank Funds In Interest Bearing Canal Bonds.

Omaha, Jan. 4.—Senator John M. Thurston says he has a proposition to make for the disposal of the postal savings funds if a postal bank bill should go through congress. The reinvestment of the deposits is the stumbling block in the path of the bill, he says. To invest the money in our interest bearing bonds is at best only a temporary expedient, Mr. Thurston wants the money put into a great system of internal improvements, which will give the commerce of the west a waterway from the Mississippi river to the Atlantic seaboard.



SENATOR JOHN M. THURSTON.

Mr. Thurston would revive the Hennepin canal project. But he would go farther than the advocates of that canal. They wanted the government to appropriate $6,000,000 or $8,000,000 for a canal from Hennepin on the Illinois river to some point west or northwest of it on the Mississippi for the widening of the Illinois river and for the enlarging of the Illinois and Michigan canal, which was constructed by the state of Illinois in the first half of the century. Mr. Thurston wants a canal from the Mississippi river deep enough and wide enough to accommodate a ship of war. He wants the river and canal channels east of Hennepin made equally wide and deep, and he wants a ship canal opened from Lake Erie to the Atlantic, either by the widening of the Erie canal or by the opening of a canal to cross Lake Champlain on the line surveyed a year ago by a government commission.

The use of this canal would be the cheapening of transportation rates on the farm and range products of the west to points of consumption and export in the east and on the manufactures and imports of the east to the western states.

"There is no doubt in my mind," said the senator in conversation with me a few days ago, "that the government has got to undertake some day a scheme of internal improvements which will give work to the unemployed. There is no considerable number of men out of work now—that is, of those who want employment—but during the three years of depression I have no doubt there was an average of a million men out of employment. Labor leaders at times estimated the number at 2,000,000 and at 3,000,000. I believe it would have been better for the great mass of the people if the government had found employment for these men. The community lost by support them in some way. Every idle man is a tax on the man who is working. And lack of work creates discontent, which stirs up a revolutionary feeling.

"The scheme of improvements, I think, will take the form of a system of waterways which will cheapen transportation and keep the rates of the railroads down to a reasonable figure. The canals of New York have done a wonderful work in the regulation of transportation rates in that state. When the Hennepin canal project was last discussed, it was shown that on roads running east from Chicago in competition with the water routes the freight rates were only one-half the rates on roads running northwest which had no water competition. Of course the enormous traffic they said gave the roads accounted for this in part, but the lakes and canals were responsible for much of it.

"The experience of the lake carriers has shown that water rates can be cheapened greatly by using the largest carriers. Therefore I say that if the government undertakes the construction of a canal between the Mississippi and the great lakes, it ought to make a complete job of it by affording a channel deep and wide enough to accommodate a ship of war. Its waters should be equally wide and deep, and he wants a ship canal opened from Lake Erie to the Atlantic, either by the widening of the Erie canal or by the opening of a canal to cross Lake Champlain on the line which will accommodate the largest ships."

"Do you think this an opportune time for carrying out such a plan?" I asked.

"In view of the condition of our finances, perhaps not, unless the postal bank law should be passed. But there things are not done in a day. They must be discussed by the people. What must be done at first is to appropriate the money for a complete survey of the proposed route, with an estimate of the cost, so that the people will have something concrete to consider."

"Do you think such a canal could be made profitable?"

"I have no doubt that it could. But suppose that it did not prove directly profitable. If we spend $60,000,000 on a waterway system which will save the people of the whole country one-half of what they are paying for transportation, it would be a good investment if it never paid directly a cent."

I suggested that one-half the amount paid for transportation by the people is concerned we cannot stop to consider how the interests of railroad stockholders are affected. New inventions are constantly making manufacturing cheaper, but we can't stop to take into account the man who owns the old machinery, who may be ruined by the loss. Railroad interests would suffer from the building of a great ship canal, but there must be in time a reorganization of railroad properties in the country. Almost every railroad in the United States is overcapitalized. The average would probably be 50 per cent. That is the stocks and bonds of the railroads represent 50 per cent more than the actual cost of the road. In some cases they represent a great deal more than that. This is especially true of western roads. Why? Because it was an easy way for the men who built those roads to make money. The increase was not entirely indefensible. Take the case of a man who built a road out on the prairie. Following the railroad came a boom in values. Real estate went up to two and three times its former price. Other values advanced proportionately. It was only natural that the owner of the railroad should increase the estimate of the value of his property on the same scale. In that way, in the many ways known to the promoters of railroad enterprises, stocks were watered, and values must be scaled down. Railroads must be prepared to earn a fair return on their value only.

"As to the stockholders, I stated some time ago in congress the belief that railroad stockholders would be better protected if the government undertook absolutely the regulation of rates. Some people said they thought that a remarkable position to be taken by a man who had been for so long a time the editor of a great railroad. But I said to them that for that very reason I knew whereof I spoke. The worst enemy of the stockholders of a railroad today is the traffic manager. Even under pooling and traffic agreements he pursues the ruthless policy which has caused railroads to railroad properties. His only object is to get business."

I asked the senator if he did not believe cities like St. Louis would suffer from the diversion of traffic to Chicago.

"I think not," he said. "It would simply make the railroads running east from St. Louis reduce their rates to a point where they could hold the business. It would be a little hard on the railroads, perhaps, but it would not hurt St. Louis."

I asked the senator why the water route by way of the Mississippi and the gulf did not keep down rates on export products.

"Because the business naturally follows the east and west route and always will," he said. "No considerable part of our exports ever has gone or ever will go by way of the gulf. No, the natural and accustomed route is to the Atlantic seaboard."

"What particular route do you favor for this great canal?"

"I should say that in the east the best route, for safety, would be the one farthest from the Canadian line. In the west I am disposed to favor the route which reaches the Mississippi most directly from Chicago."

"Do you think the system will ever extend west of the Mississippi?"

"Not in your day or mine. It may follow the course of some one of the rivers of Iowa for a short distance. But out in our direction the rise is too abrupt, and the locks would have to be too close together. As to the Missouri river, it is quite impossible for navigation. Some of our people talk at times of making it available for barges, but that is a vain dream.

"By the way, the condition of the Mississippi alarms me," said the senator. "The jetty system is proving a failure, and it is demonstrated very quickly that the jetties are raising the bed of the river. I was in New Orleans on the day of the highest water during the past year. They told me that the levees which protect the city of New Orleans were three times as high as they used to be; but the river was higher than the city, and the water trickling in over the floor of a house at the end of the levee, so that they had to get sandbags and protect it from winning. I would not undertake to propose or approve any new scheme of improvement for the river, but certainly the present system is a failure."

Mr. Thurston has eminent authority for his advocacy of the canal system. John C. Calhoun in 1845 presided over a waterways convention which declared that "the project of connecting the Mississippi river with the lakes of the north by a canal, and this with the Atlantic ocean, is a measure worthy of the enlightened consideration of congress." Grant approved the canal project. So did Arthur. President Monroe, in one of his messages to congress, said of the general scheme of waterways: "When we consider the vast extent of territory in the United States, the great amount and value of its productions, the connection of its ports and other circumstances on which their prosperity and happiness depend, we cannot fail to entertain a high sense of the advantage to be derived from the facility which may be afforded in the intercourse between them by means of good roads and canals. Never did a country of such vast extent offer equal inducements to improvement of this kind nor ever were consequences of such magnitude involved in them."

The "consequences" at the present time Mr. Thurston estimates at $60,000,000 to $100,000,000 a year—that is, of the United States, according to the interstate commerce report, was about $600,000,000.

"Of course I don't mean literally one-half," said the senator. "Suppose it saved 10 per cent of the amount. That would be 16 per cent on the amount invested in the waterways system. There has not been very much said about canals in recent years because the railroad in competition with them have got their rates so low that they shut the canals out. Suppose that result followed the building of a great ship canal from the Mississippi by way of the great lakes to the Atlantic. If the canal never carried another pound of freight it would have accomplished its purpose."

"Do you think the railroads are prepared to stand such a reduction as you suggest is possible?"

"Not in their present condition. But the interests of the railroads have got to give way before the interests of the people. Where the good of all the people is concerned we cannot stop to consider how the interests of railroad stockholders are affected. New inventions are constantly making manufacturing cheaper, but we can't stop to take into account the man who owns the old machinery, who may be ruined by the loss. Railroad interests would suffer from the building of a great ship canal, but there must be in time a reorganization of railroad properties in the country. Almost every railroad in the United States is overcapitalized. The average would probably be 50 per cent. That is the stocks and bonds of the railroads represent 50 per cent more than the actual cost of the road. In some cases they represent a great deal more than that. This is especially true of western roads. Why? Because it was an easy way for the men who built those roads to make money. The increase was not entirely indefensible. Take the case of a man who built a road out on the prairie. Following the railroad came a boom in values. Real estate went up to two and three times its former price. Other values advanced proportionately. It was only natural that the owner of the railroad should increase the estimate of the value of his property on the same scale. In that way, in the many ways known to the promoters of railroad enterprises, stocks were watered, and values must be scaled down. Railroads must be prepared to earn a fair return on their value only.

THE CANAL ROUTE WEST OF CHICAGO.

THE WATERWAY EAST OF CHICAGO.

Modern Methods Of Placer Mining.

This is a homely illustration of placer mining: Take a bushel of coarse sand mixed with gravel, a bushel of earth such as you see taken from an excavation in any large city or from the country field, a considerable proportion of clay, a little cement, a double handful of shot, varying in size from the smallest bird shot to the diameter of a small marble. Imagine all these ingredients to be thoroughly mixed in the consistency of an ordinary compost heap.

Now, to extract the shot—which represents gold—in the least possible time and with the smallest expenditure of labor, the placer miner would tell you to wash away the earth and save the shot.

"All you need is a pan and plenty of water. Any sort of a flat vessel from a soup plate to a tinplate will answer the purpose. The miner's pan is shaped like a cake pan with a flat bottom. When a prospector starts out, he takes one made of copper. Gather with your knife or a pick or a shovel a quart of this mixture of soil just described and put it in the pan. Fill the pan nearly full of water. The earth will be soften ed into mud. Add more water. Then dip your pan over a very little and the soft mud will run out over the top of the pan. Continue the operation, and in 10 or 15 minutes the earth has run off and all that you have left in the pan is the shot, which, being heavier than the earth, has sunk to the bottom, together with any gravel you may have thrown in originally. The work of separating the shot from the gravel after the earth has been washed away is very easy.

Substitute particles of gold for the leaden shotshot, and in a wild, mountainous country, with its everlasting ups and downs, the commonest gulch ranges from 20 to 60 degrees below zero, the men in the Klondike region have been doing just what has been described.

The miners have no other appliances but the pan and the water (melted ice) of the creeks in this new El Dorado. Yet the extraordinary yield of gold to the pan there has been startling. In the creek beds they have picked up chunks of solid gold as large as a man's hand—simple nuggets worth $1,000 or more.

In the beginning of mining, the earth from which gold is extracted is called "dirt." Any earth which yields 10 cents of gold to the pan is known as "pay dirt;" 25 cents to the pan is good, and 50 cents to the pan is rich. A miner working in dirt that runs 6 to 10 cents to the pan earns from $3.50 to $3.50 a day, as he is able to wash about 50 panfuls a day, the number depending on the character of the dirt. In Klondike the lowest yield to the pan reported is 20 cents. This would give the miner not less than $10 a day for his work. Some panfuls have yielded $100 in precious metal. The gold that remains in the pan after the earth has been washed away is called "dust." Some of it is as fine as the finest sand, some of it is grains the size of a pinhead, and some as large as a pea or the end of your little finger, but it is all known as "dust." Lumps the size of a hazelnut or a walnut and larger are called nuggets.

The gold itself is the measure of the day's or the month's or the season's profit. An ounce of it is worth $18 about the mining camps. At the mints it is a trifle less. All stores are provided with gold scales, and the miners' dust is deposited as so much coin of the realm. As much as can be held on the largest blade of a penknife is worth from $3 to $7.50. But this small quantity is often only the yield of 20 or 30 pans. That is, a miner can save in one industrial of dirt the earth of a dollar he is making fair wages.

Some of the gold is in such fine particles that it floats like a vapory dust and does not sink to the bottom under any circumstances. A considerable portion of such floating gold runs over the top of the pan and is lost. It is estimated that in the first placer mining in California about one-fourth of the gold was thus passed aside. To this day Chinamen are engaged in panning the refuse dirt of early miners, and they make from $1.25 to $2 a day in the operation. In Klondike, where much of the gold is very coarse, the miners lose very little of the precious metal by reason of its floating away. Placer mining is the simplest of all processes for getting gold out of the ground, but can be carried on only where there is an ample supply of water. All reports from the Klondike agree that the best "diggings" are in the beds of creeks, and that the farther down they go the richer the dirt, until bedrock is reached. All this is a beautiful story in miniature of the present, but more so to those who worked and struggled in

The days of old,
The days of gold,
The days of '49.

FACTS ABOUT PEOPLE.

Zola denies that he ever intended to run for the chamber of deputies.

Joseph Mansfield, a member of the Georgia legislature, says he will introduce a bill to legalize poker playing in private rooms of hotels or other places.

Joel Chandler Harris has written a Jersey cow to young Richard Folsom Cleveland. He raised the cow himself and hopes the milk will help to make the former president's son as big a man as his father.

Sir Edward Sassoon is making a clean sweep of the statuary with which the late Mr. Barnato's unique taste had adorned his house in Park lane, London. The figures are to be removed and dumped down in Preston park, Brighton, by way of gift to the corporation.

Miss Minnie Powers of Lockport, N. Y., is believed to be the tallest woman in North America. Average height of women is 5 feet 3 inches, but Miss Powers towers above that as Pike's peak over a mole hill. She is 7 feet 11 inches, and as she is only 22, the chances are good for her to score an even 8 feet.

Captain Henry Henry, who gave the federal government the first information in regard to the Knights of the Golden Circle and their secret work in Indiana during the war, has been living in Bloomington, Ind., for the past 20 years. Curiously enough, the fact did not become known to his neighbors until a few days ago.

John H. Reagan, the last survivor of Jefferson Davis' cabinet, is a candidate to succeed Roger Q. Mills as senator from Texas. Judge Reagan was a member of congress before the war, postmaster general of the Confederacy and a member of congress and a senator from Texas. Resigning his seat a few years ago in the senate, he accepted the chairmanship of the Texas railway commerce commission and holds that office at the present time.

Although the venerable Lord Armstrong, now 87 years of age, is chiefly known for his improvement in ranson and for his connection with one of the largest manufacturing establishments in the world, he has given some attention to electricity. What is probably the most minutely printed work on that science, "Electric Movement on Air and Water, With Theoretical Inferences," has just made its appearance in London and is from his pen.

There is in Chicago a young Japanese girl who is attracting attention not only by her brightness and cleverness, but as well by the literary ability she possesses. Onoko Watanai is the name she is known by among her home folk.

Miss Tayre, wife of the great violinist, is just back in this country, is her husband's assistant and secretary and manages all of his money matters.

The queen of Belgium sulked a cow at a farmhouse recently because the old woman in charge was paralyzed and the queen was thirsty.

Bentinus Winner, the composer of the popular song, "Listen to the Mocking Bird," written in 1855, celebrated his golden wedding recently.

possibly two-fifths of the present cost of running the whole government.

The Hennepin canal project received serious consideration several times at the hands of congress. More than ten years ago the state of Illinois offered to the government the $3,000,000 state canal between Lake Michigan and the Illinois river on condition that it should be widened and connected by way of the Illinois river with the Mississippi. The distance from Hennepin to the Mississippi by the proposed canal was 81 miles, while by way of the mouth of the Illinois the same point on the Mississippi was 463 miles away. But congress, after having elaborate surveys and estimates made, let the project go to default. One point of difference was the choice of a western terminus for the canal, and that difference would arise again. Three routes were proposed. The cheapest and most satisfactory from an engineering view point, was the Marais d'Outer or Meredosia route, terminating at Albany, seven miles above Rock Island. Another route terminated at Watertown, 21 miles above Albany, and the third at Rock Island. General Newton and Secretary Endicott favored the Rock Island route, largely on account of the arsenal there and the consequent importance of the canal in time of war. The local interests represented by the three terminii supplicated congress for years, and their failure to agree no doubt had much to do with the defeat of the canal bill.

GEORGE GRANTHAM BAIN.

Self Reliance.

Henry Ward Beecher used to tell this story of the way in which his teacher of mathematics taught him to depend upon himself:

"I was sent to the blackboard and went, uncertain, full of whimpering.

"'That lesson, sir, I have learned,' said my teacher in a very quiet tone, but with a terrible intensity. All explanations and excuses he tried underfoot with utter contemptuousness. 'I ask that problem: I don't want any reasons why you haven't it,' he would say.

"'I did study it two hours.'

"'That's nothing to me. I want the lesson. You need not study it at all, or you may study it ten hours, just to suit yourself. I want the lesson.'

"It was tough for a green boy, but it seasoned me. In less than a month I had the most intense sense of intellectual independence and readiness to defend my convictions.

"One day his cold, calm voice fell upon me in the midst of a demonstration. 'No!'

"I hesitated, and then went back to the beginning, and on reaching the same point again 'No!' uttered in a tone of condemnation, I saw my error.

"'The next!' And I sat down in red confusion.

"He, too, was stopped with 'No!' but went right on, finished, and as he sat down was rewarded with 'Very well.'

"'Why,' whimpered I, 'I recited it just as he did, and you said, "No!"'

"'Why didn't you say, "Yes," and stick to it? It is not enough to know your lesson. You must know that you know it. You have learned nothing till you are sure. If all the world says, "No!" your business is to say, "Yes," and prove it.'"

A New Advertising Dodge.

A new advertising dodge has just been adopted by a leading theatrical company in New York with considerable success. It consists of sending checks to thousands of theater goers, filled in for an amount considered, on the basis of a flattering income computation sufficient to pay for two minutes of the recipients' time. The checks are perfectly good, and the letters accompanying them read as follows: "Dear Sir—Assuming that your income is $15,000 a year and that you appreciate the fact that 'time is money,' we inclose our check for 4 cents in payment for two minutes of your time at that rate, to be employed in carefully reading a brief and honest statement of a few of the many original, novel and applause-winning features to be found in the three act musical farce, to be produced for the first time in New York on Monday evening." Then follow some extremely complimentary remarks about the piece.

Populous Underground City.

In Galicia, in Austrian Poland, there is a remarkable underground city, which has a population of over 1,000 men, women and children, scores of whom have never seen the light of day. It is known as the City of the Salt Mines, and is situated several hundred feet below the earth's surface. It has its town hall, theater and assembly room, as well as a beautiful church, decorated with statues, all being fashioned from the pure crystallized rock salt. It has well graded streets and spacious squares, lighted with electricity. There are numerous instances in this underground city where not a single individual in three or four successive generations has ever seen the sun, or has any idea of how people live in the light of day.

Where Socialists Invest.

Much amusement has been created in Germany by the discovery that almost the entire funds of the powerful socialist and anarchist movement in the dominions of Emperor William are invested for safety in Prussian and German government bonds. This fact has been brought to light through the publication of a financial report by the leaders of the movement appealing for subscriptions and contributions. During the last year the expenses have been so heavy and the contributions relatively so small that the treasurer found himself compelled to invest the same amount of money in government bonds as in previous years.

The Catacombs Now Lighted By Electricity.

The visitor to Italy complains of modern steam tuns on the Grand canal in Venice and the new funicular road of cleanliness in the streets of Naples and the new quarters in Rome, but the height of the prosaic seems to have been reached with the illumination of the catacombs by electric lights. No more dim distances, in which one must take care not to be lost; no more sacrilegious bobbing of lighted tapers in some darkness, mystery and insanitary. This being the feast of St. Cecilia, the catacombs of St. Calistus, where the Roman virgin was buried in 177 a. D., were today for the first time all aglow, and glaring with thousands of electric globes, illuminating even the most remote corners and giving to the whole a much more rather than a mystic effect.

These catacombs are outside the Porta San Sebastiano, on the magnificent Appian way, that the Romans called the Queen road, and contain the well known tomb of Cecilia Matella. St. Cecilia is not the only prominent martyr of the early Christian era whose name is connected with this place, for the remains lie there of several popes of the third century, as witness the original tombs of St. Anthera, St. Fabian, St. Lucius, St. Cornelius and St. Eutychianus, who all sat in the chair of St. Peter.

Thousands of Romans and foreigners have today visited this sacred spot. The crowd itself formed a picturesque view, as from below one looked up at the pilgrims descending and ascending the long, steep flight of stairs or at the long processions of cowled monks and black robed nuns, showing in vivid contrast to groups of students of the German college in their scarlet gowns, a garb that causes them to be called in fun "the little cardinals." The soldiers responded in echoes to the chants at the different altars, while there was a subdued hum from the less devout sightseer. What would be appreciated by the visitor, if he were not preinformed, is that the five miles of corridors and chapels are not on the same level, but form three different floors, one under the other. The most interesting spot is where St. Cecilia's tomb was found, and where also stands a copy of the statue of the saint, desired by Maderno, remembered for after her martyrdom. Next stands a most interesting marble tablet, the inscription on which was originally a pagan one dedicated to Marcus Aurelius. The Christians utilized the tablet by turning it and writing on the back a new epitaph to Pope St. Damasus.

Bones and skeletons of the ancient martyrs are found all along the walls, in three rows, one above the other. The lower row is the more disturbed, as almost every one tries to take something away as a sacred relic. But the electric light on these bones turns the catacombs into a museum.

The Juryman Was Sleepy.

A curious cause for adjourning court is the sleepiness of a juryman; yet such is the reason which the London Times gives for an adjournment before the usual hour on the afternoon of the sixth day of the trial of a matrimonial action in the probate, divorce and admiralty division of the high court of justice. Mr. Cook, Q. C., was addressing the jury in behalf of one of the ladies who had been allowed to intervene in order to defend their own reputation. The atmosphere in the courtroom was very close and oppressive and doubtless acted as a soporific, for the report of the proceedings, after giving a portion of Mr. Cook's address, terminates abruptly, saying, "The learned counsel's speech was here broken off, as unfortunately one of the jurymen had become overcome with sleep." Such an occurrence can hardly be regarded as complimentary to counsel or encouraging to his client, yet Mr. Cook won his case, all the same.

Prehistoric Animal.

Some time ago J. C. Russell, a Bad River (S. D.) merchant, and Thomas Jones, a stockman, discovered the petrified skeleton of some huge prehistoric animal which in life must have measured at least 30 feet in length, shaped much like a crocodile, save that its hind legs were at least six feet in length and its fore legs somewhat shorter. Its feet must have been over 18 inches long and nearly as wide.

The head had, unfortunately, become exposed to the action of the elements and was entirely crumbled away. A description of the fossil and a few of the petrified bones were sent to the Smithsonian institution for classification, and in due time Mr. Russell received a letter from that institution informing him that his strange find was the skeleton of a dinosaurian, a gigantic reptile that existed in great numbers during the mesozoic era.

The World's Laboratory.

At a meeting of the Institute of Electrical Engineers in London, recently, Professor Ayrton, in giving the toast of "The Scientific Societies," referred to progress made and observed that the shadowy theory of yesterday was the orthodox belief of today and would be the recognized practice of tomorrow. America is as the electrical laboratory of the world. There a new science might be applied, even because it was new.

A Massage Machine.

A massage machine, to render professional massage unnecessary, has been invented. It consists of 12 pairs of polished wooden balls, arranged up on a jointed chain with a handle at each end, and can, it is claimed, be adjusted to any part of the body without the aid of a masseur.

Strength of Horse and Lion.

If a lion and a horse were to pull in opposite directions, the horse would pull the lion backward with comparative ease, but if the lion were buried behind the horse, and facing the same direction and were allowed to exert all his strength in bucking, he could easily pull the horse down upon his back.

Right Up to Date.

The modern advertiser has to be close up to date. For instance, one such advertising pathfinder in New York, set forth their merits by beginning: "Shoes they are wide. You don't miss your car because your skirt won't let you run 10 steps." His wife must have put him up to that.