

DREDGING THE RIVER IS THE ONLY REMEDY.

(Continued from Fourth Page.) have been based could only afford partial relief. To accomplish desired results it would have to be made so wide and so deep that it would practically be a new river, the cost of excavating and manufacturing which would be enormous. We presume that nobody will deny the proposition that the greater the volume of water that can be confined to the channel of the river the greater will be its scouring capacity. All our reasoning is based upon the theory that the deepening of the river and the correction of the channel is the first and absolute requirement of any successful scheme for drainage and reclamation.

"Plans based upon this theory have not heretofore received the consideration which the importance of the subject deserves, for the reason that such work has been considered wholly within the province of the national Government and of no concern to the State, and for the further reason that until very recently no machine or appliance had been invented by which the cost of moving earth could be reduced to a figure that would warrant the State in undertaking to deepen rivers and correct channels as a part of a system of reclamation.

"The Bates' hydraulic dredger, referred to at length in our report, seems to furnish

THE SOLUTION

Of the drainage and reclamation problem. The tests made are official, having been made under the direction of the Mississippi River Commission. We have a right to assume that they are reliable. If, as it is claimed, it will go through a sand bar at a speed of from five to ten feet a minute, cutting a channel 40 feet wide and 20 feet deep, the cost of deepening and straightening the river, of making the Sacramento navigable from Red Bluff to the bay at all seasons of the year, as well as the construction of a perfect levee system can be calculated with mathematical precision.

"But this dredger will solve the problem of drainage and reclamation in California if it will accomplish one-half of what is claimed for it.

ESTIMATED COST.

"The contract price of the 'Beta' dredger was \$172,000, and it can be operated for \$10,000 per month. It is not reasonable to presume that the property affected will have to bear all this expense. Our representatives in Congress can make it clear to the War Department that this work is a direct and material aid to navigation, and that the Government should bear a reasonable share of the expense.

"But even should the Government refuse material aid, which is not at all probable, the plan proposed involves an expenditure so much less than that under the system of reclamation now in operation, as to seem almost incredible at first glance.

PAST EXPENDITURES.

"Reclamation districts involving about 750,000 acres of land have been organized in Butte, Colusa, Sutter, American and Yolo Basins. A computation made in 1894 showed that on the rivers and the land in these districts the Government had expended \$1,000,000 and the State and individuals \$17,000,000, and that for the most of this there had been no adequate return.

"The expenditures of 1895 and 1896 have probably swelled the total to \$19,000,000. There is one reclamation district in Yolo County on which the sum already expended, and without satisfactory results, is sufficient to construct a hydraulic dredger and operate it for ten years. It is more than enough to construct two dredgers, put the Sacramento River in good navigable condition from Red Bluff to Benicia, and in a great measure solve the problem of drainage.

"But all these questions are discussed at length in our report, and the plan as proposed may be briefly summarized as follows:

"First—The deepening of the river and correction of channel.

"Second—The construction and maintenance of a uniform levee system, with such easements as may be necessary for the protection of the same.

"In order to consummate this plan we recommend that the State purchase and operate one of the dredgers in order that its efficiency may be determined."

ENGINEER PRICE'S VIEWS.

John R. Price, Chief Engineer of Public Works, next appeared before the meeting and gave a succinct account of what was to be expected of the Bates dredger, which the Department of Public Works recommends for doing the work proposed.

When inducted into office, Mr. Price said he had concluded that something practical ought to be done towards re-

claiming the swamp and overflowed lands, and that a feasible plan ought to be presented to the Legislature for such reclamation. He stated that \$17,000,000 had been expended during the last twenty years in attempts to solve the problem, and considered that every man of judgment should come to the front and assist in systematic levee building, river deepening, and general protection.

There was a line to be drawn between private property and the State, continued Mr. Price, and he considered it the duty of the State to step forward and repair the damage it had done, by putting the river in as good condition as it was before it became filled with silt. It was not unreasonable to expect and ask for such aid, as \$100,000,000 worth of property depended upon the perfection of the plan.

DAMAGE TO THE RIVER.

Engineer Price produced a map showing the outline of the Sacramento River and the changes that had occurred through settling of silt between the years 1871 and 1895. In 1871 soundings of the river had been taken at one-half mile intervals, and the bottom showed deep water. Tide water came up as far as Sacramento, and the water was amply deep for inland navigation up to the headwaters of the stream. The profile of the river was the irregular lines showing deep pools and broad basins, while in 1895 the profile had become regular.

It was contended by Engineer Price that to lower the bed of a stream meant to lower both high and low water marks just as much as the bed was deepened. The velocity of a stream might be increased either by increasing the fall or by introducing a larger volume of water. The plan of the Department of Public Works was to

DEEPEN THE STREAM.

Thereby securing an increased fall, and by draining the Yolo and other basins increase the volume, thus securing great scouring power. The State should, by all means, take up the question of deepening and enlarging the capacity of its rivers.

It was, however, impossible to deepen rivers with "wind," but if given the funds to press the work Mr. Price said he would carry out the plans submitted, and carry them out successfully. All that was needed was a start, and nature would complete it.

THE BATES DREDGER.

Mr. Price then gave a brief description of what was to be expected from the Bates dredger. It had, during the past season, been used by Government engineers in dredging the Mississippi River, and had proved a decided success. The Government had proposed to give a bonus to the inventor of the dredger, provided it was found that more than 1,600 yards of material could be removed in an hour, and the result had been that the bonus ran up to 50 per cent. above the contract price. Instead of removing 1,600 yards per hour, the machine easily lifted 6,000 yards, and when run to its full capacity 7,000 yards were removed in an hour.

Mr. Price read the following letter from Mr. Bates' Secretary, C. P. White: "J. R. Price, Chief Engineer, Sacramento, Cal.—Dear Sir: Your letter of December 10th is at hand. The first cost of the plant will vary according to the size of the dredge and the details, from \$15,000 to \$150,000.

"The material is dredged from a depth of four or five feet down to thirty or forty feet, and can be delivered, according to what the material is, through a pipe line up to a mile long, and elevation of discharge can be twenty feet without inordinate power. The depth at which material can be dug is simply a question of mechanism. It can be dug during high water by proper construction.

"The question of height, of course you understand, up to a certain height of discharge is somewhat a question of coal consumption, although there are heights which would be impracticable. What the extreme height would be, I should prefer to have Mr. Bates answer, but I am quite sure that twenty-two to twenty-four feet would be all right, although the coal bill would be considerably higher than if it were ten feet less."

WILL S. GREEN

Was next called on, and stated that he had been the pioneer of reclamation in the State. He had studied the question since its inception, and believed that the plan offered by the Commissioner of Public Works and Engineer Price had solved the problem. He believed it was just what swamp land-owners had been looking for. Improved dredging, he said, was the solution of the whole subject. There was no longer a jetty in which to dump silt, and the only thing to be done was to lift the silt out of the river, instead of sending it down to Suisun Bay, where there was no room for it.

If, said Mr. Green, the Bates dredger would do one-half or one-third what is above and below Sacramento City that would save the water to leave the main channel, spreading ruin and devastation over the adjoining lowlands, and causing the formation of sand bars in the channel below said breaks in the river.

"While it is the duty of the Federal Government to take charge of, preserve and improve the navigable waters of California, it is the duty also of the State of California to protect itself. It will naturally desire to show the vast benefit that will accrue to the State of California in the way of increased commerce and in adding to the taxable wealth of the State, by inaugurating a system of improvement that will enable the navigable rivers of California to take care of the waters that reach them, and to become permanent high-ways of commerce. The amount of money that will be required for this purpose is so small as compared to the vast amount of advantage which will accrue therefrom that it is not only good government to appropriate the necessary money therefore, but it would seem the height of folly to postpone or deny the means of improvement within easy reach. Fortunately for the State, a plan of river improvement has been recommended by the Honorable Commissioner of Public Works which, in many respects, if not in all, affords a solution of this vexed question. All the interests of the State of California can unite in obtaining legislation that will rectify the rivers and improve them as channels of commerce.

"We should all be willing, and are, to bury any personal differences we may have so as to secure this one universally desired result upon which in a great measure the welfare of interior California depends.

"We desire to co-operate to the fullest extent with the Federal Government, but believe that the interests of the State of California require that it should lend a helping hand to facilitate the work of improvement, while there will remain in the future a large amount of work to be done by the land owners through means raised by individual taxation.

"The most pressing necessity at the

Highest of all in Leavening Strength.—Latest U. S. Gov't Report.

Royal Baking Powder ABSOLUTELY PURE

claimed for it, the swamp land men could afford to buy it and work it.

DISCUSSING THE MEMORIAL.

At this point the report of the Committee on Memorial and Resolutions was handed in, and considerable discussion followed:

Mr. Van Loben Sels contended that the matter of levee-building should not, at the present time, be taken up. That feature, he said, would no doubt come up later, but the position and height of the levees along the river should be left to the property-owners. The levees along the lower part of the river were already complete, and no one except the owners should be allowed to dictate. He believed the river channel could be enlarged so as to carry a flood, even of the volume of that of 1861-62. He thought that any movement to remove the Newtown Shoals was a step in the right direction, and he would favor it. He was glad, once for all, that the Montezuma Hills Canal business was buried, and hoped it would never again be resurrected.

J. W. Ferris said he was a dredger man throughout, but that too much must not be expected from the one in question. He thought it would be wise to cut down the appropriation asked for to \$500,000. The machine was excellent for the purpose of removing shoals, but much of the work to be done would be changing the conformation of the river, and this the machine would not do.

R. T. Devlin explained that the report had only been drawn, showing that the work could be accomplished for \$500,000, and that the words, "\$500,000, or such a sum as may be required," would be all that was necessary. Mr. Ferris contended that such an amendment would be indefinite, and that the memorial should state a specific sum.

Judson C. Brusie submitted that there should be no sum mentioned in the memorial. A memorial was merely intended to call the attention of the Legislature to the necessity of an appropriation, and the Legislature should be allowed to draw its own conclusion from the engineer's report of the appropriation necessary.

A. L. Adams of Yolo County coincided with Mr. Brusie, and a motion to strike out all mention of a specified appropriation was carried, and as so amended the report was adopted. It is as follows:

MEMORIAL AS ADOPTED.

Strong Appeal to the Legislature for Assistance.

The Committee on Memorial and Resolutions to the Governor and Legislature, having completed its labors, reported as follows:

"To his excellency, James H. Budd, Governor, and to the Senate and Assembly of the State of California: Your memorialists, who are deeply interested in the improvement of the navigable waters of the State, in mass meeting assembled, do respectfully memorialize you as follows:

"The Capital City of California, by reason of the agricultural interests, make it a common center of commerce, and favored as it is by nature, should be the second city, if not the first, in point of commercial importance in the State of California. While at present the condition of navigation at points above Courtland is such that during low water season, say from August to November, no vessel exceeding three feet of draft can reach Sacramento, and it is a matter of common knowledge that even such vessels are frequently required to lighten their loads on barges before they can proceed to Sacramento.

"We assert that by improving the Sacramento River it can be made in its true sense a commercial highway, and that Sacramento City can be made a seaport, and there can be docked at the city front seagoing vessels of two feet draft and over.

"It is a well known fact that owing to many causes the navigable rivers of Central California have been seriously damaged, and that they are unable to perform the function nature intended of carrying off the flood waters so as to prevent the surrounding lands from being overflowed or of answering the necessities of commerce.

"At present frequent breaks in the levee above and below Sacramento City cause the waters to leave the main channel, spreading ruin and devastation over the adjoining lowlands, and causing the formation of sand bars in the channel below said breaks in the river.

"While it is the duty of the Federal Government to take charge of, preserve and improve the navigable waters of California, it is the duty also of the State of California to protect itself. It will naturally desire to show the vast benefit that will accrue to the State of California in the way of increased commerce and in adding to the taxable wealth of the State, by inaugurating a system of improvement that will enable the navigable rivers of California to take care of the waters that reach them, and to become permanent high-ways of commerce. The amount of money that will be required for this purpose is so small as compared to the vast amount of advantage which will accrue therefrom that it is not only good government to appropriate the necessary money therefore, but it would seem the height of folly to postpone or deny the means of improvement within easy reach. Fortunately for the State, a plan of river improvement has been recommended by the Honorable Commissioner of Public Works which, in many respects, if not in all, affords a solution of this vexed question. All the interests of the State of California can unite in obtaining legislation that will rectify the rivers and improve them as channels of commerce.

"We should all be willing, and are, to bury any personal differences we may have so as to secure this one universally desired result upon which in a great measure the welfare of interior California depends.

"We desire to co-operate to the fullest extent with the Federal Government, but believe that the interests of the State of California require that it should lend a helping hand to facilitate the work of improvement, while there will remain in the future a large amount of work to be done by the land owners through means raised by individual taxation.

"The most pressing necessity at the

present time is the improvement of the Sacramento River between Fremont and the mouth of the Sacramento River, one-half mile below Collinsville, which can be done in accordance with the views expressed by the Commissioner of Public Works by means of a dredger in removing the shoals at Newtown, and the construction of a restraining wall from the foot of Grand Island to Wood Island, about a distance of two and one-half miles, which work, in accordance with the report of the Hon. Ed. E. Leake, Commissioner of Public Works of this State, can be easily accomplished.

"For the reasons stated, we urgently request you to make a sufficient appropriation to be expended by the Commissioner of Public Works or other competent authority for this purpose.

"And we also earnestly request you to take such measures as may be necessary to secure the co-operation of the Federal Government with the State in this improvement.

"W. A. GETT,  
"P. J. VAN LOBEN SELS,  
"R. T. DEVLIN."

COMMITTEES NAMED.

On motion of W. A. Gett Chairman Stephenson appointed an Advisory Committee of twenty-five persons persons and an Executive Committee of five, as follows:  
Advisory Committee—W. A. Gett, E. R. Pond, Dr. George A. Moore, Fred Zelle, Hugh J. Corcoran, General T. W. Sheehan, Dwight Hollister, J. H. Glide, Marion De Vries, Joseph Desrosier, George L. Clark, R. T. Devlin, Colonel George Hagan, George E. Williams, A. H. Wilbur, Thomas W. Dean, R. D. Robbins, Jesse Poundstone, Thomas J. Mumma, W. E. Gerber, F. T. Dwyer, James O'Neil, General R. Veale, James Sullivan.

Executive Committee—A. T. J. Reynolds of Courtland (Chairman), M. J. Boggs of Colusa, D. D. Green of Courtland, A. C. Bingham of Marysville and Sol Runyon of Courtland.

Gillis Doty, Senator-elect from Sacramento County, was called on and stated that he had always stood for river improvement and would be found for it still at the next session of the Legislature.

A vote of thanks was tendered to the Commissioner of Public Works Leake and Chief Engineer Price for the able manner in which they had presented the proposition before the meeting.

No further business coming before it, the meeting adjourned to the call of the chair.

EARLY ASPARAGUS.

A Sacramento Man the First in the Market.

Last evening's San Francisco "Bulletin" contained the following: "Last Friday W. P. Wilson of this city received as a Christmas token a box of the first of the new crop of asparagus, coming from a relation, Jacob Olsen of Sacramento. The stalks were large and well-developed, being equal to any ever seen in the market.

"Mr. Olsen has made a specialty of growing asparagus for many years, and has supplied the San Francisco market with tons of his product. His place is located opposite Agricultural Park, Sacramento, alongside the levee. Eighteen or twenty years ago he started his asparagus farm, without money and in debt.

"He devoted himself entirely to the propagation and improvement of the vegetable, and his success has been marked. A few years ago he sold a portion of his farm for \$25,000, and has been able to amass a fortune from the sale of asparagus, being now one of the most prosperous citizens of the Capital City.

"He attributes his success in life entirely to the fact that he knows how to do one thing well—and that is how to produce the best asparagus. This year's crop is ready for market earlier than usual."

A Pair of Alleged Vagrants.

Thomas Moran and Albert Hand were arrested yesterday on charges of vagrancy. They will appear before Justice Davis this morning.

Meat Markets to Close.

The Butchers' Protective Union announces that all the meat markets will be closed on New Year's Day.

Death of a New York Surgeon.

UTICA (N. Y.), Dec. 28.—Alonzo Churchill, M. D., died here to-day, aged 85 years. During the war he served as surgeon of the Fourteenth New York Volunteers and the Eighth Regiment of Heavy Artillery.

Whatever I do, wherever I go, I think, my darling one, of thee. "But that's not much, with such a thing. To think with as you've got," said she. —Cleveland Leader.

THE NONFAREIL.

"The Nonfareil"

BLANKETS, BEDSPREADS, COMFORTS. Special Sale To-day.

For the balance of the year we shall offer such immense values at such small prices as will make things hum around the Great Big Store, and these few items will fairly indicate how we are going to do it.

The Great Cloak and Wrap Sale Continues.

The printed prices are low, but not until you have the garments and prices both before your eyes at one time can you form any idea of the splendid values the prices represent. The best way, therefore, is to come and see.

Reduced to 98c.

One lot of Heavy Cotton Bedspreads with distinct Marseilles patterns, full size for double bed, wear well and always gave satisfaction at the greater price. Now reduced to 98c each.

Reduced to \$1 55.

See this lot if you would know what wondrous power your dollars have now. Genuine Marseilles Bedspreads, heavy in weight, heavy embossed patterns, size 80x90. Heavy in value, but light in price, \$1 55.

COMFORTS

Both in warmth and price.

Reduced to \$1 10.

Two bales Cotton Comforters, well quilted, full size, full weight, filled with pure white cotton batting, covering light and medium colored figured sateen on one side and plain on the other. Reduced price, \$1 10.

Reduced to \$2 15.

Another Comfort, size 74x80, covered with figured French sateen on one side and figured silklike on the other, filled with pure white cotton batting, well quilted and in all this is a superb value, weight and quality considered, at the reduced price, \$2 15.

\$4 75 instead of \$6.

Fifty fine large, well filled, well quilted, Elderdown Comforters, covered with fine French sateen, with beautiful colored Persian figures, full size, full weight, soft and down proof. Reduced from \$6 to \$4 75.

BLANKETS.

Reduced to \$3 95.

11-4 White All-Wool California Blankets, extra large, weigh five pounds and have handsome colored end borders. You have never bought a better blanket for \$6. The price now is \$3 95.

Reduced to 85c.

11-4 White Cotton Blankets, splendid weight, long fleecy nap, fancy colored end borders; many use them in preference to comforters. The price is but 85c per pair, and we have but TWO BALES (100 pair). These are a snap for quick buyers.

Reduced to \$2 75.

100 pair Very Heavy Full Sized Sanitary Gray Blankets, with contrasting end borders and ends bound with wool binding. You must see these to appreciate their worth. Reduced price, \$2 75.

BEDSPREADS.

Reduced to 69c.

100 White Bedspreads, with distinct Marseilles patterns; these are good weight and large enough for any full sized bed. Reduced in price to suit these bargain times. 69c each.

WASSERMAN, DAVIS & CO.,

Big New Store, K, Between Sixth and Seventh.

GOOD THINGS.

"Good order is the foundation of all good things." For instance, an order for the best for Christmas of Nuts, Olives, Navel Oranges, Mince Meat, Plum Pudding, Sweet Cider, Fancy Raisins, Poultry Seasoning, Cranberries, Red Apples, etc. The Nuts are especially choice.

ROBERT D. FINNIE, Grocer, 721 J.

CORWIN'S MILLINERY, Until full stock is sold: The first Genuine Clearance Sale in MILLINERY Sacramento has ever had.

607 J. Don't Miss This.

THE FAIR, SPECIAL THIS WEEK.

505 J, KELLY & O'CONNOR. Ladies' Wool Vests..... \$1 50 now \$1 25 Ladies' Wool Vests..... 1 25 now 95 Ladies' Wool Union Suits..... 1 25 now 1 00 Ladies' Wool Union Suits..... 75 now 50

Pope's Scientific Toys.

Among the Pope's scientific toys none interest him so much as the phonograph in which he hears Patti, Gladstone, two Presidents of the United States and several dead friends.

On receiving a present of an elaborate typewriter inlaid in ivory and silver, with the Papal arms on it, the Pope said: "Some one else must use this; I am too old to learn."—Exchange.

The sale of the library of the late Lord Leighton, President of the Royal Academy of Arts, which took place in London July 18th, realized to the estate nearly \$4,000.

\*\*\*\*\*KILLED! KILLED!\*\*\*\*\*  
\*WHAT IS KILLED? PRICES ON ALL\*  
\*kinds of work at CHARLES WILKES,\*  
\*Watchmaker and Jeweler, 1010 Seventh\*  
\*street, Diamond setting a specialty.\*  
\*\*\*\*\*

HAT AND CANE

Help to make the well-dressed man. We sell never a cane, but raise it with our competitors when it comes to quoting low prices in good hats.

FRED TROUT, 802 J.

BOYS' RUBBER COATS..... 65c  
BOYS' NAVY BLUE REEFER OVERCOATS..... \$1 00

"The" Sale of '96.

The tide of Christmas Buying swept through our different departments like a mill-race. This store has done a very satisfactory business in the midst of a general depression; because our goods—our prices—and our business methods are right.

The rush, however, left us with some BROKEN LOTS—and to clear the entire line of this season's goods, in preference to carrying them over another season, we have arranged a SALE for

TO-DAY, WEDNESDAY,

And will offer the ENTIRE LINE at such extremely LOW PRICES that

THEY SURELY WILL BE CLOSED OUT.

IN OUR BOYS' CLOTHING DEP'T YOU CAN BUY OVERCOATS, worth \$2 50 \$1 50 and \$3, at this sale for. ULSTERS, worth \$3 and \$3 50, \$1 75 at this sale for. BOYS' REEFER SUITS, worth \$3 and \$3 50, at this sale \$1 65 for. BOYS' LONG PANTS SUITS, \$2 25 worth \$3 50, at this sale for.

IN OUR SHOE DEPARTMENT YOU CAN GET LADIES' DRESS SHOES, \$1 98 worth \$3, at this sale for. MISSES' SCHOOL OR DRESS SHOES, worth \$2 and \$2 50, \$1 35 \$1 75 at this sale for. MEN'S FINE CALF SHOES, \$1 95 worth \$4, at this sale for.

ALL OTHER BROKEN LINES IN THE DIFFERENT DEPARTMENTS will be sold at correspondingly REDUCED PRICES.

The Chas. P. Nathan & Co. 604-606-608 J. ST. BETWEEN SIXTH AND SEVENTH.

ONE LOT Boys' Suits at 69c. Two-piece Knee Pants, double-breasted, heavy-weight, size 4 to 14, fancy checks and mixtures. Regular retail value, \$1 50.

Business Bringing Bargains.

ONE LOT Boys' Suits at \$2 33. Three-piece Heavy-weight Long Pants Suit, ages 14 to 19 years, in fancy mixtures, round cut sack style. Regular retail value, \$5.

CHEAPER THAN PATCHES

Are the PANTS we are selling this week. Mending is dreary work for a woman at best. It can hardly be necessary when we offer a pair of good, 98c strong-made Men's Pants at.....

ALL OUR \$12, \$14, \$15 AND \$16 MEN'S SUITS AND \$9 72 OVERCOATS—THIS WEEK.....

If you value appearance and money, you'll come here. If you don't care, anywhere else will do.

IT PAYS TO TRADE AT THE MODEL Sixth and K Sts., SACRAMENTO.