Seaports of

(Continued from Yesterday.) APPENDIX.

Reference has already been made to the features of cost and general undesirability of the proposed ship channel to Portland. The residents of the Columbin basin are vitally interested in this project, and some details are worthy of attention. The disagreement between Major Handbury and Col. Mendell, and between Major Handbury and the board of engineers, on the Items of durable style of construction and of larger width of channel, have been specified in a general way. Major Handbury calls for dredging a channel only 150 feet wide. In such dredging, the cuts at the two pides of the channel are made with vertical sides, with the expectation of inflow and some consequent lessening of depth and width. This action continues until the slope conforms to the natural slope of the river bed, always a very long slope in soft material. Col. Craighill speaks of the necessary yearly expense at Baltimore as follows:

"In excavation no effort has been made to give with the dredge any spe cified slopes to the sides of the dredged channel. To require anything of that kind would cause contractors to raise their prices, even if the whole work were contracted for at once. In this case, the way has been to make the sides of the excavation practically vertical. As the side slopes slip in, the dredge keeps the bottom clear until the natural slope in the water is gradually Such inflow will make a serious inroad in a channel of only 150 feet original width, and will increase the difficulties of navigation. To have rec-ommended such a narrow width, par-liver was affected to an alarming deticularly in the great Cathlamet bay gree, appetite fell away, and he was terribly reduced in flesh and strength, where Major Handbury himself says Three bottles of Electric Bitters cured "sands are continually drifted about by
the waves," is the strongest evidence
of a desire on Major Handbury's part
to commit the government to his project by asking at first only for what is
merely an initial amount, the thinnest
possible edge of appropriation that
could be devised for a very broad ultimate wedge of large expenditure. In
the great mass of river and harbor apthe great mass of river and harbor appropriations it is utterly impossible for SEE THE WORLD'S FAIR FOR FIFthe board of engineers to know of their own knowledge and from their own examination, what is desirable in each case, especially for remote Oregon. The government is always at the mercy of the local engineer, whose social and friendly relations with the prominent men of the largest city of his district will almost invariably, perhaps unconsclously, and always without any dishonest purpose, tend towards his co inciding with their views. But in this keep it. Address H. E. Bucklen & Co., case, and working only on common Chicago, Ili. sense principles, without close knowledge of the proposed work, the board has seen and negatived many evidently undesirable recommendations of Major

The Willamette river portion of the proposed improvement is stated by Col. Mendell, with good reason, to be the "most difficult part of the whole prob-Of the total distance to be deepened, namely ten miles, "four miles are in the Willamette river." It is a well known fact that the erosive power of rivers on the bottom of channels is exerted at low water stages. High water erosions take place laterally along the banks and at obstructions, and not in the bottom, and the suspended material so obtained is deposited in the channels during floods. Major Handbury refers to this action in the Williamette. "The high water velocities carry large quantities of heavy material." A point of land 12 to 15 feet above water and 200 feet wide and which seemed to be solid, "during one night" when the river was four feet above low water mark. The only erosive power available for the Willamette is its very small volume at low water stage. This has altered you nearly reached the limit of its effectiveness of erosion for the channel width requisite, that with only 100 feet width and only 19 feet depth, a loss of a small part of the volume in the past daughters each one. water and 200 feet wide and which a small part of the volume in the past daughters each one. has neutralized its scouring power. An indication of this is found in Major Handbury's report. He says of the attempted dams across Martin's and Burke's slough:

"It was estimated that about onetenth (enly) of the low water discharge of the river passed through these cloughs, which fact was largely instrumental in the formation of Martin's Is-

In urging the closing of the channel south of Swan Island, he says:

"What is spoken of as a channel, is in reality a high water chute. At a low

to maintain in it a depth required by 1891. existing and contemplated navigation. There is a bar through which it is necessary (even with the present 29 foot

provement, and not murely for one part, it will indeed, as Col. Mendell says, "take some years to accomplish the result by the unaided erosive powers of the Northwest the water." It is almost certain that expensive dredging alone will secure deepening below 20 feet. Of dredging, the engineer speaks as follows:

Willamette river. "A channel 18 to 19 feet depth has been repeatedly dredged at the head of Swan Island, only to be filled again at the next succeeding high water of the Willamette." Major Handbury's report, 1891.

"The use of the dredge to remove the worst part of shoals gives quick results, but it is an expensive mode of procedure, as a freshet of a few days' length has often obliterated the work of months of one or more dredges." Col. Craighill.

"When quick results are demanded, the engineer is forced to use the dredge although he may be sure that the work in whole or in part must soon be done over again." Col. Craighill.

"While some have often favored dredging, Mr. Eads strongly opposed it.

Report on Mississippi jetices. Pensacola. A channel dredged in 1884 to 24 feet, had shoaled to 19 feet in 1899. Such eases appear constantly in the reports of the United States engineers.

(To be continued Tomorrow.)

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Upon receipt of your address and fif-teen cents in postage stamps, we will mail you prepaid our souvenir portfolio mall you prepaid our souvenir portfolio of the World's Columbian Exposition the regular price is fifty cents, but if you want one, we make the price nominal. You will find it a work of art and a thing to be prized. It contains full page views of the great buildings, with descriptions of the same, and is executed in highest style of art. If not satisfied with it after you get the book, we will refund the stamps and let you



NOE & SCULLY.

ADMINISTRATOR'S NOTICE,

Notice is hereby given that the undersigned has been appointed administratrix of the estate of George McLean, deceased, late of Clatsop county, Oregon, by the county court of the state of Oregon for Clatsop County, and all persons having claims against said estate must present the same properly verified to the undersigned within six months from this date, July 5th, 1894.

ELIZABETH McLEAN, Administratrix.

Administratrix ADMINISTRATOR'S NOTICE.

stage of the Willamette, there is not more than one foot of water through a marrow, tortuous channel." Yet this slight amount of water is so much needed for scouring the other channels that he goes on to say:

"The main ship channel is on the north side of Swan Island. The flow of water through this is barely sufficient six months from this date, June 18th, 1894. Notice is hereby given that the un-

SHERMAN CASE, Administrator.

ADMINISTRATOR'S NOTICE.

righ water in the Willamette in order to maintain a channel of 20 feet depth. The inability of the present low water volume to keep a 25 foot channel scoured out, is evident."

It is noteworthy that Col. Mendell introduces a cautious "perhaps" into his opinion of his younger subordinate's expectation that the channel will be deepened by natural action. Certainly for all parts of the proposed Willamette im-



The business man who says that advertising does not pay does not advertise. He is the one that always doubts the prosperous trade reports he hears of his competitor, who does advertise. He sits in the back of his store, smokes his pipe and wenders why he isn't making any money. He has the blues when he should have trade. He not only lets his neighbor get that neighbor's share of the business, but a good part of his also. He sees people whom he thought old friends of his go into his competitor's store and come out with bundles of goods, when he has the same articles on his shelves, and perhaps at lower prices than they paid his competitor for them. Why is this so? It is because his competitor lets the public know in an intelligent way through the local papers what he has to sell and when he has it.

The successful advertiser looks after his advertising space as he does his clerks. He changes his ads. in such a way the people are attracted by them. He feels that to make money he must be willing to spend some; that there is strong competition in all lines of business, and to get his share of the trade he must advertise, and to do it in the most skillful and intelligent way. If he cannot write advertising matter himself, he seeks the aid of some one who has made the writing of advertisements a study-some specialist, who will see that it is properly written in a catchy and displayed way-some one whose duty it is to take off the shoulders of a busy man all the worry of making up an ad. No business man attempts to cure his own sickness, pull his own teeth, make his own clothes or attend to his own law cases. He employs specialists for each of these various services, and saves money by doing it. It is through its language and arrangement that an advertisement gets its business-bringing qualities. There must be something to attract public attention and hold it; omething of interest, something out of the ordinary, something that is different from others of the same line of business. To give it these peculiar feature requires experience, and the owner of The Astorian has engaged the services of such a specialist for the benefit of its advertising customers who may wish to take advantage of his services.

The Evening Star, of Washington, D. C., has an advertisement writer connected with its business department and its terms to advertisers are, "So much blank space, so much money. The same amount of space, with the assistance of the advertisement writer in getting up ad. attractively, so much addi-

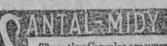
The Astorian charges nothing extra the services of the expert being thrown

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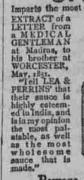
and substitute for lard, and her checks, with those of her family, will be far more likely to be "Like a rose in the snow." cate, healthful and popular. Try it for yourself.

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