every-day occurrence. The further step of lifting her to a considerable height is not a great one, especially if you can start with her floating in a considerable depth of water. Beyond these the conveyance of her over a railway, provided the latter is moderately level and moderately straight, is a simple matter, which is certainly not outside the reach of civil engineers."

Mr. William Pierce, sole proprietor of John Elder & Company's works, Govan, Glasgow, and who built the Arizona, the Elbe, the Alaska, and others of the largest and finest steamers afloat, in a letter dated August 26, 1881, says:

"I am of the opinion, from what I know of the working of iron floating docks that I have designed and built, that iron steamers of 4,000 to 5,000 tons' displacement may be docked loaded, without any injury whatever. It is also my opinion that a Ship Railway for vessels of this size may be constructed and worked successfully, provided the land is solid and the line moderately level."

Nathaniel Barnaby, C. B, present chief constructor of the British navy, in a letter dated London, October 8, 1881, says:

"I note, therefore, the question you wish to put to me, which is: 'Do I think the problem insoluble of constructing a car on which a fully loaded ship can be safely transported over such a railway as could be built through a tolerably level country?'

"In reply to this, I say not only that it is soluble, but that the solution is, in my opinion, fairly indicated in your plans, as laid before the committee on interoceanic canals and shown to me.

"Ships which would be strained by ordinary docking would be liable to be strained also when suspended on a car not specially designed for their crazy condition, but such ships would be still more strained in their ordinary sea passages."

Mr. William F. Buckley, president of the New York Balanced Dock Company, in a letter to Mr. Eads, dated February 14, 1881, gives the following list of vessels taken out on his dock with cargoes in them:

"Ship Great Victoria, 2,386 tons; ship Triumphant, 2,046 tons; ship America, 2,054 tons; ship Hagerstown, 1,903 tons; ship S. C. Blanchard, 1,903 tons; steamer Colorado, 2,765 tons; steamer Rio Grande, 2,565 tons; steamer Thingvalla, 2,436 tons; steamer Monarch, 2,366 tons; steamer Lepanto, 2,310 tons; steamer State of Nevada, 2,488 tons."

And says:

"We do not refuse any class of ships or steamers, even with their coals and cargoes on board, whose length does not exceed the length of the dock. In every case in which we have taken up steamers with cargoes in, it has been done without the least strain or injury to the vessel. As the rule is to make a charge for raising cargo in the vessel, they usually come without cargo."

"Captain Eads's proposed Ship Railroad has a precedent in Germany, where vessels of sixty tons capacity are carried overland from the upper to the lower part of the Elbing-Oberland Canal, in West Prussia. This Ship Railroad has been in successful operation for over sixteen years, but when the idea was first broached it was ridiculed by everybody. Even then, however, there had been a precedent for the scheme in a road over our Alleghany range, on which canal boats were carried."—*American paper.*

"A screw steamer has been transported, without a strain, fifty miles by rail from Pensacola Bay to a lake in Walton County, Florida."—*Detroit Free Press, June 5th, 1886.*

BOMBAY HYDRAUTIC LIFT.

"The Peninsular and Oriental Steam Navigation Company having taked over from