

The Coast Whale Fishery.

Whale fishing off the New England coast by small steamers is getting to be quite a business. During the past two months four steamers have been engaged in this work, viz., Fannie Sprague, Mabel Bird, Hurricane, and Josephine.

They cruise off the Maine and Massachusetts shores, as far south as Cape Cod. A bomb-lance, fired from a gun held at the shoulder, is used for killing the whales. Up to date about forty whales have been captured.

As the men become expert in the manner of capture, the whales become shy and keep more in deep water. After being killed they usually sink, and it is doubtful if the business, as at present conducted, will last if the whales are driven off from near shore, it being difficult to recover them in over 40 fathoms of water.

The whales captured the past few weeks average 60 feet long, and weigh about 25 tons each; they yield about 20 barrels of oil, 2 barrels of meat, 5 tons of dry chum, and 2 tons of bone, about \$400 being realized from each whale, on the average.

Double Rails.

According to the Joliet (Ill.) *News*, the Joliet Steel Co. now roll steel rails in 2-rail lengths, thus saving two crop ends on every two rails, as well as securing a larger product than by the old method of rolling single rails. The company intend to roll 4-rail lengths after a while. The rails are passed through the rolls by machinery.

LOCKS OF THE MANCHESTER SHIP CANAL.

At Latchford, some 15 miles from the Manchester dock, it is intended to construct a dock for the accommodation of Warrington; and there are to be coal docks at Irlam and Barton. The canal locks at these places are of compound design; at Latchford there will be a group of three locks of different sizes, placed side by side. The largest will hold several ships at once, but they will have intermediate gates to allow a part of the lock to be used without waste of water. Hundreds of vessels may thus pass these locks in a day. The Irlam and Barton locks are to be similar in design, but without tidal gates. The gates and sluices will be worked by hydraulic power, but steam power will also be provided. In other respects, the locks on the Manchester Ship Canal will be constructed very similar to each other, so that in illustrating one of these locks from the engineers' designs, a very good representation of the various locks on the canal route is afforded to the reader, so that we need only add that in its course the canal will ascend five of these locks.—*Engineering Review*.

A NEW STEAMBOAT.

The annexed cut represents the model of a new steamboat constructed by Mr. Emil Adam, of Prague, Austria, and with which astonishing results were obtained.

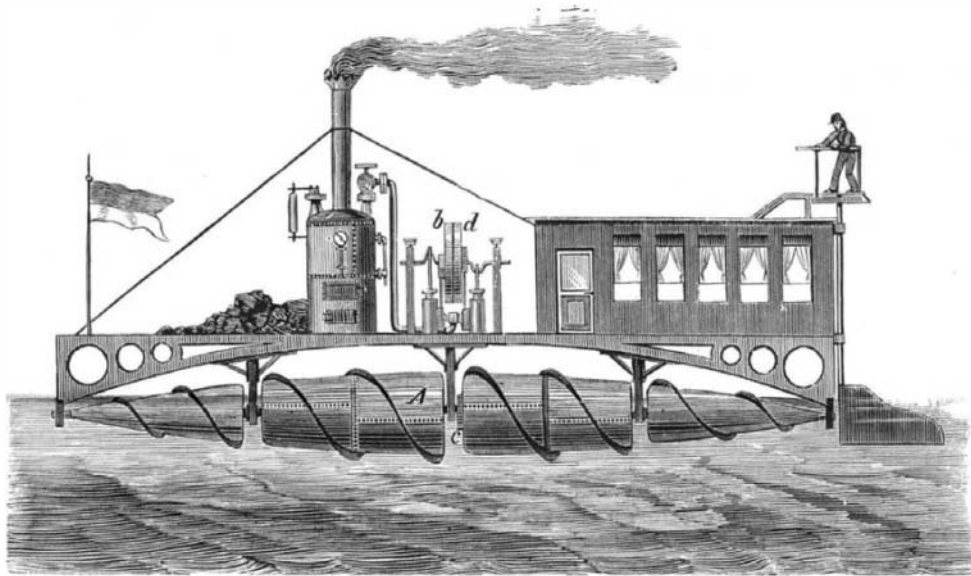


Fig. 1.—A NEW STEAMBOAT—SIDE VIEW.

According to the *Erfindungen und Erfahrungen*, from which we copy, the inventor set out to reduce the resistance of the water as much as possible, and for this purpose constructed the hull of his vessel of two hollow cylinders, which are tapered from the middle toward

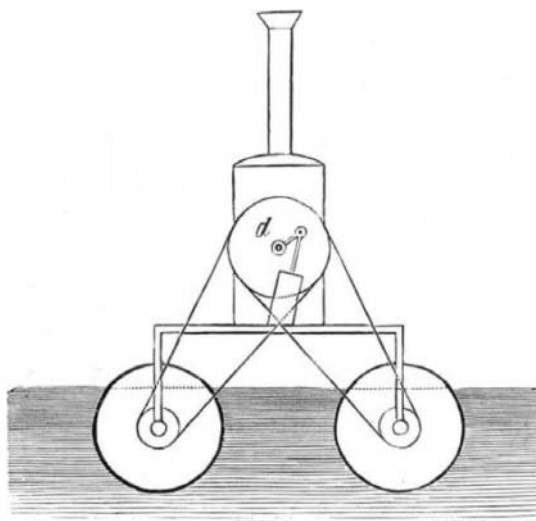


Fig. 2.—END VIEW.

both ends, whereby a shape resembling that of a cigar was obtained.

Each cylinder is provided on its outer surface with a screw thread, formed of metal plates riveted on the cylinder, the line of inclination of the thread being

about 45° to the longitudinal axis of the cylinder. Annular recesses or breaks are formed in the cylinders at suitable intervals for the bearings supporting the frame of the vessel. The cylinders are rotated by a suitable engine, of any desired construction, on the deck or platform of the vessel. The water in which the cylinders revolve acts as a nut for the screw threads, whereby a rapid motion in either direction is obtained; especially as the frame, decks, etc., are entirely above the surface of the water, and thus offer little or no resistance.

Fig. 1 is a side view of the vessel, and Fig. 2 is an end view of the same, the latter figure showing the belts for transmitting power to the screw cylinders. In the vessel shown, the two cylinders act the same as the two vessels forming a catamaran.

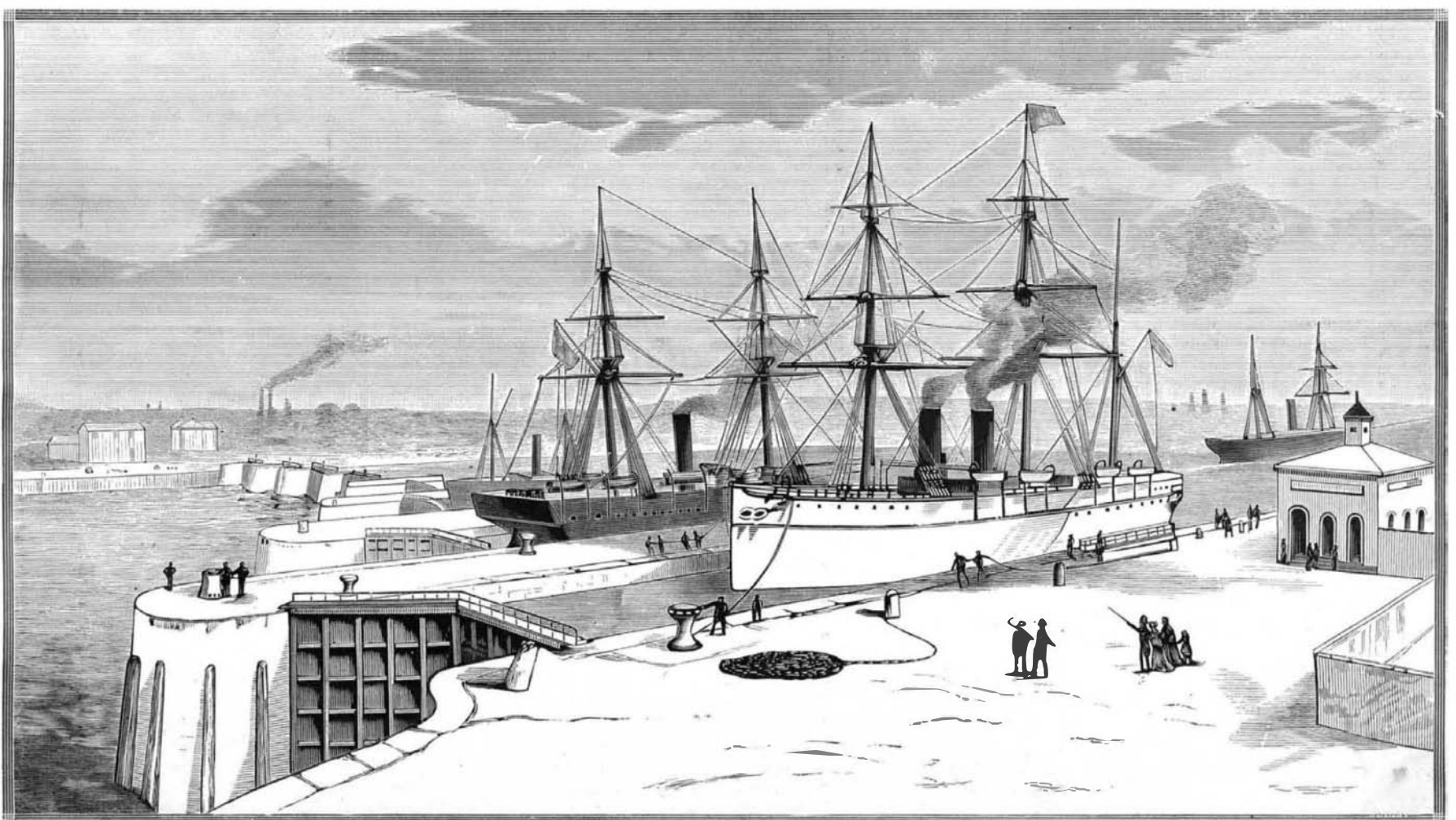
If desired, a third cylinder may be provided, or the number may be still further increased.

Walnut Hair Dye.

The juice of the walnut rind has been used from time immemorial as a hair dye. Bernschen and Semper have recently communicated to the Berlin Chemical Society a method of preserving it for use in the shape of a hydroglucoside, prepared as follows: The rinds of the ripe nut are digested in sulphuric ether until their coloring matter is extracted. A solution of chromic acid in water is added to the ether solution, and the mixture thoroughly agitated. The ether is then distilled off, and the residue purified by solution, first in hot ether, and afterward in a mixture of chloroform and petroleum ether, from which latter it is obtained in a crystalline form as hydrogen glucoside. This substance colors the hair and skin exactly as does the juice of the fresh rind.—*National Druggist*.

Car Coupler Company.

The Hilliard Car Coupling Co., says the *Kansas City Times*, has filed articles of association in the county recorder's office. The capital stock of the company is \$600,000, divided into 6,000 shares of the par value of \$100 each. The names of the incorporators and the number of shares held by each are as follows: Thomas J. Hilliard, 1,950 shares; Charles Schryver, 900 shares; William Peake, 1,125 shares; Charles A. Peake, 300 shares; T. K. Hanna, 300 shares; R. H. Drennon, 300 shares; W. C. Duvall, 375 shares; Waldo Suckow, 75 shares; F. C. Adams, 75 shares; H. M. Tilotson, 300 shares; O. L. Woodgate, 150 shares; and J. A. Scott, of Rich Hill, 150 shares. The object of the company is to exercise all rights and privileges under the letters patent granted to Thomas Hilliard in 1882 for improvement in car couplings. The corporation is to continue fifty years.



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