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NEW YORK, SATURDAY, MAY 28, 1892.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as 'Annealing oven, for tin plates', 'Measles bacillus', 'Artesian wells, facts about', 'Mineral and geological specimens, preserving', etc.

TABLE OF CONTENTS OF SCIENTIFIC AMERICAN SUPPLEMENT No. 856.

For the Week Ending May 28, 1892.

Price 10 cents. For sale by all newsdealers.

Table listing contents of the supplement by page number, including sections like 'I. ASTRONOMY', 'II. CHEMISTRY', 'III. CIVIL ENGINEERING', etc.

NEW INVENTIONS NEEDED FOR WORKING STEAM-SHIPS.

In our last number we gave an account of the recent act of Congress passed for the special registration of the two great British-built steamers, the City of New York and the City of Paris.

But according to the views of our London contemporary, Engineering, there is not much likelihood, after all, of the realization of the transfer.

There are several companies of American citizens who would like to build steamers here with a view to foreign trade, but they are deterred by the greater running expenses required.

At present it looks as if recourse must be had to the genius of our inventors for the solution of the problem of ocean steam navigation in American-built steamers.

THE NEW STEEL STEAMERS OF THE PROVIDENCE LINE.

The second of the new screw steamers, the New Hampshire, built for the Providence and Stonington line by the Harlan & Hollingsworth Co., of Wilmington, Del., has just been finished.

Length over all, 310 ft.; length on water line, 302 ft. 7 in.; beam moulded on load water line, 44 ft.; width over guards, 60 ft.; draught, 12 1/2 ft.; gross tonnage, 2,400; net tonnage, 1,500; hull of steel, with seven steel bulkheads, dividing the vessel into water-tight compartments; propeller screw left-handed, four blades 13 1/2 ft. diameter, 18 1/2 ft. pitch; 13 in. shaft, 130 ft. long, in sections of about 25 ft., with eight thrust bearings of Magnolia metal; maximum revolutions, 100 per minute.

The engine is of the inverted direct-acting triple expansion type, with four cylinders: One high pressure cylinder, 28 in. in diameter; one intermediate, 45 in. in diameter; and two terminal cylinders, each 51 in. diameter, with 42 in. stroke.

revolutions, develops 2,947 indicated horse power, or 1,227 I. H. P. per gross ton.

The action of the quadruple engine tends to a freedom from jar or vibration, usual with our large propellers of this class, making the after part of the vessel an exceptionally quiet part.

The boilers, two in number, are of the Scotch type with Purves corrugated furnaces, each 46 x 78 in., aggregating 270 sq. ft. of grate surface. Boilers 13 1/2 ft. diameter, 11 ft. long. A blower service for the fire room and boilers when necessary.

An incandescent lighting system, consisting of two Thomson-Houston dynamos of 350 light power each, driven by separate engines of 20 horse power each. Steam is reduced to 80 lb. pressure for these engines by a reducing valve.

The fitting up of saloons and staterooms is in the most elegant style, and there seems nothing wanting to make the new boats favorites with the traveling public.

THE LARGEST MASONRY DAM IN THE WORLD.

The largest masonry dam in the world has lately been completed in India, in connection with the new water works for the city of Bombay. It is situated 65 miles north from Bombay, and stretches across the Tansa Valley. The dam is about two miles in length; 118 feet high; 100 feet thick at its greatest depth; 15 1/2 feet at the top.

Kalsomining.

Kalsomining, or wall coloring in distemper, is best done about this time of the year, when the walls are not too cold or too hot. It may be done, says the Paint and Varnish Journal, any time during the winter, so that the walls do not freeze.

Natural Gas at Salt Lake.

Natural gas has been discovered on the shore of the Great Salt Lake, within ten miles of Salt Lake City, and a large company has been organized to utilize and develop the fuel.