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NEW YORK, SATURDAY, MARCH 7, 1891.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as 'Air ship, the Pennington', 'Alder, black (2877)', 'Amber', 'Arbor day', 'Bath and wash tub, Martiniot's', etc.

TABLE OF CONTENTS OF SCIENTIFIC AMERICAN SUPPLEMENT No. 792.

For the Week Ending March 7, 1891.

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Table listing sections I through IX: BIOGRAPHY, CIVIL ENGINEERING, ELECTRICITY, HYDRAULICS, MISCELLANEOUS, MEDICINE, NATURAL HISTORY, ORDONANCE, TECHNOLOGY.

COLUMBIAN FAIR PROGRESS.

The managers of the International Exposition to be held in Chicago in 1892-93, after many disagreements as to the site and other particulars, seem now to have come to sufficiently definite conclusions to permit of the actual commencement of work.

The plans for the buildings in Jackson Park have been very carefully considered by a commission of architects, which met in Chicago, February 20, and, although all details are not yet finally determined, the main features are fully laid out.

It is estimated by the directory that the expenditures will be \$17,625,453, divided as follows: For construction, \$12,766,890; administration and organization, \$3,308,563; operation, \$1,550,000.

ANOTHER FARADAY WANTED.

Among the scientific problems that await solution was that described at the recent meeting of the National Electric Light Association by Prof. Elihu Thomson, to wit, a direct method of obtaining electricity from fuel.

Edison has been working on the problem. If only he could solve it! Davy, after years of unrewarded study and observation, put two wires together tipped with carbon, drew them apart and got the flame which now we call the electric arc.

principle which underlies the generation of current by the dynamo, being the first to move armatures in magnetic fields. We have profited greatly also by that.

INTERESTING NAVAL INFORMATION BY THE SECRETARY OF THE NAVY.

The impression prevails in the popular mind that there has been a falling off in the speed of our new war ships, and that they are incapable of the velocities with which they were credited on their original trial trips.

A representative of the SCIENTIFIC AMERICAN recently had a special interview with the Hon. Benjamin F. Tracy, Secretary of the Navy, respecting the above matters, and at the same time requested his views upon the new fast cruiser No. 12; also upon the proposal to employ fast naval vessels as mail carriers.

Secretary Tracy said: "The statements recently made concerning the cruisers of the new navy, namely, that they have fallen off in speed from the records established on the measured mile, and that they have never since approached in general efficiency and sea-going qualities to the standard set up on the trial trips, are untrue statements and misleading in the extreme.

"It is not true of the Boston, which has been in commission many years, and is now also one of the squadron of evolution. She can to-day make as good speed as she has ever made. Look at the recorded speeds of the vessels of this squadron under the command of Admiral Walker, in Narragansett Bay, during the autumn of 1889.

"It is in accordance with this theory that the vessels of the new navy are not, as a rule, run up to their best records. But I think it can be shown that whenever great speed is a desideratum, the vessels of the new navy are, class for class, equal to and superior to the English vessels in maintaining and retaining their initial speeds.

"The statement that the coal bunkers are of insufficient capacity is an unreasonable one. Every vessel, it has been said, is a compromise. In the designing of a vessel there are many features to be considered, and to a certain extent each must be modified by all the others.