

Scientific American.

ESTABLISHED 1845.

MUNN & CO., Editors and Proprietors.

PUBLISHED WEEKLY AT

No. 361 BROADWAY, NEW YORK.

O. D. MUNN.

A. E. BEACH.

TERMS FOR THE SCIENTIFIC AMERICAN.

One copy, one year, for the U. S., Canada or Mexico, \$3.00

The Scientific American Supplement is a distinct paper from the SCIENTIFIC AMERICAN. THE SUPPLEMENT is issued weekly. Every number contains 16 octavo pages, uniform in size with SCIENTIFIC AMERICAN.

THE ARCHITECTS AND BUILDERS EDITION OF THE SCIENTIFIC AMERICAN is a large and splendid illustrated periodical, issued monthly, containing floor plans, perspectives, and sheets of constructive details, pertaining to modern architecture.

Spanish Edition of the Scientific American. LA AMERICA ECONOMICA E INDUSTRIAL (Spanish trade edition of the SCIENTIFIC AMERICAN) is published monthly, uniform in size and geography with the SCIENTIFIC AMERICAN.

The safest way to remit is by postal order, express money order, draft or bank check. Make all remittances payable to order of MUNN & CO.

NEW YORK, SATURDAY, MAY 17, 1890.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as 'Anvil attachment', 'Armaments, naval', 'Athletics, regulation of college', etc., with corresponding page numbers.

TABLE OF CONTENTS OF SCIENTIFIC AMERICAN SUPPLEMENT No. 750.

For the Week Ending May 17, 1890.

Price 10 cents. For sale by all newsdealers

Table listing sections like 'I. AGRICULTURE AND FARMING', 'II. BIOLOGY', 'III. CHEMISTRY', etc., with sub-articles and page numbers.

THE COPYRIGHT BILL FAILS TO PASS.

The defeat of the copyright bill in the House of Representatives by a vote of 126 to 98 disproves the assertion so often made in certain quarters that the sentiment of the public is growing more and more favorably disposed to the measure, for, remembering that the vote on the measure last session was almost a tie, it would seem that longer consideration of its merits has increased rather than lessened the opposition to its passage.

On examination it proved, instead of an authors' bill, to be a publishers' bill, and to be strongly opposed to the interest of the general public, giving the publishers the right to increase the cost of foreign books—a virtual monopoly or patent for 42 years; indeed, the foreign author being left to accept whatever terms were offered him or be debarred from publishing on this side the ocean at all.

The promoters of the bill seem agreed that its defeat was due to the action of Mr. Payson, of Illinois, by which was struck out the provision that foreign books should be printed in the United States to obtain a copyright.

But was it not logical and reasonable to divest it of this clause, its passage being asked on the plea that it was to benefit authors?

The promoters of the measure have all along maintained that the author has as clear a right to the possession and free disposal of the work of his brain as the producer of any other kind of marketable merchandise. They insisted that it was dishonest to take a foreign author's works without compensation.

To the ordinary mind the bill which has been defeated looked simply to self-interest, to the interest of a small class of the community, to wit, to the publishers, as against the many. It would, in fact, have tended to raise the price and consequently restrict the sale of the reprint, that boon to hungry readers.

A FIBER FROM COTTON STALKS.

The result of the formation of the jute bagging trust has been to array against it the powerful Farmers' Alliance, now numbering, it is claimed, over two million members in the South and West. When the trust was first formed, the price for bagging was advanced from seven to twelve and fourteen cents a yard, though the price since then has fallen very much from the latter figures.

Reliable advices from Augusta, Ga., recently received seem to indicate that the want of a satisfactory substitute for jute bagging has been met by producing a fiber from cotton stalks. Mr. William E. Jackson, a lawyer of Augusta, has given a good deal of time and attention to developing the process.

A detailed description of the process by which the fiber has been obtained cannot be given at this time, but it is known that the bark is removed from the

stalks by means of a breaker. It is said, however, that the bark can also be stripped off by hand, or the stalks may go through the machine in their natural state, and the rollers will do the work just as thoroughly. The main feature of the fiber-producing machine consists in the forward and backward movement of the rollers, which action separates the fiber while the water underneath washes out the glue.

A cotton exporter recently stated that the bagging made from cotton stalks which he had examined resembled jute so closely that even a person who was accustomed to handling cotton would not readily detect the difference. It will not stain the cotton, and will show marks easily. It is said that the annual yield of stalks will produce bagging sufficient to bale three yearly crops of cotton.

Should the new fiber stand the test of general use, it is easy to see that a new and extensive industry has been opened up. Cotton stalks have heretofore been considered a nuisance by planters, but if they can be made into a bagging for the baling of cotton, a great step in advance will be made. No one dreamed a few years ago that oil as well as other valuable products could be produced in paying quantities from cotton seed, but this utilization of the seed forms one of the most striking as well as one of the most important of recent advances in manufacturing.

Opening of the New Dry Dock at the Brooklyn Navy Yard.

The Simpson dry dock, which has already been described and illustrated by us (see SCIENTIFIC AMERICAN, November 30, 1889) was formally opened on Friday, May 9, in the presence of a number of spectators, including many visitors and invited guests from Washington, Baltimore, and Philadelphia, as well as representative naval officers, engineers, and others of the vicinity. Promptly at 10:30 A. M. the dock was flooded, and in one hour and five minutes was full. The caisson was then lightened by the ejection of some of its water ballast and floated to one side.

Keeping at it.

It is a great mistake to suppose that the best work of the world is done by people of great strength and great opportunities. It is unquestionably an advantage to have both these things, but neither of them, quoting from the Manufacturer and Builder, is a necessity to the man who has the spirit and the pluck to achieve great results. Some of the greatest work of our time has been done by men of physical feebleness. No man has left a more distinct impression of himself on this generation than Charles Darwin, and there have been few men who have had to struggle against such prostrating ill health.

Burning of the Great Singer Sewing Machine Works.

The great works of the Singer Sewing Machine Co., at Elizabethport, N. J., were seriously damaged by fire on the 6th of May. The main building, with its valuable contents, including millions of needles, several thousand finished sewing machines, and an immense stock of partly finished machines, tools, etc., were destroyed. The loss is estimated at \$750,000. Rebuilding will be at once commenced, and temporary structures erected for the immediate resumption of regular work. The entire area occupied by the company is 32 acres. The main building was 230 feet long, 60 feet wide, with annex 800 feet long, 50 feet wide, 4 stories high.