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NEW YORK, SATURDAY, DECEMBER 17, 1887.

The year 1887 is drawing to a close, and if those subscribers to this paper—and there are several thousand of them—whose term ends with the year will remit for a continuance of the paper before the year closes, it will save the removal of a large number of names from our subscription list, and insure the continuance of the paper without interruption. By so doing the subscriber will be benefited and our subscription clerks greatly relieved.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as 'Accident, railway, singular', 'Acid, new', 'Aerolite hoax', etc., with corresponding page numbers.

TABLE OF CONTENTS OF SCIENTIFIC AMERICAN SUPPLEMENT No. 624.

For the Week Ending December 17, 1887.

Price 10 cents. For sale by all newsdealers.

Table listing sections I through IX, including 'BIOGRAPHY', 'BIOLOGY', 'BOTANY', 'COSMOGONY', 'ENGINEERING', 'GEOGRAPHY', 'MINERALOGY', 'MISCELLANEOUS', and 'NAVAL ENGINEERING'.

ONE EFFECT OF SHAM BATTLES.

The sham battle afloat and ashore, while undoubtedly of great value in schooling officers and men in alertness and precision, can scarcely be made sufficiently realistic to even approach the real thing.

Our French contemporary, Revue de Cavalerie, cites one instance of the fatal effect sham battle exercise has upon cavalry. At the battle of Worth (Franco-Prussian campaign), a small body of the 8th Cuirassiers and 6th Lancers, while in retreat from Morsbroun, came suddenly upon the 13th Uhlans (Prussian), supported at a short distance by more cavalry.

THE CHANGE IN THE PANAMA CANAL.

The proposal made by M. De Lesseps in his letter to Premier Rouvier will not fail to interest those who have followed the progress of his scheme for an interocean canal at Panama.

It would seem from this that unless the French people subscribe a sum which, with what has been expended, will raise the cost of the canal to the extraordinary total of nearly \$500,000,000, the project of a canal at Panama must be abandoned.

Up to the present, M. De Lesseps has strongly opposed the use of lifting locks along the line of the proposed canal, and stoutly denied that such a plan was afoot, though fully a twelvemonth ago Lieutenant Kimball, of our navy, on his return from the Isthmus, declared it was then under serious consideration by the canal's engineers.

A WOODEN case containing a complete set of surgical instruments, many of which are similar to those used at the present day, was a recent discovery at Pompeii.

The Calumet and Hecla Mine Fire.

The boom in the price of Lake copper, which is now selling here at 16 cents a pound, and of Chili bars in London, which has reached £67 15s. per ton, as against £39 5s. at the corresponding date a year ago, and Best Selected, the brand most nearly approaching our Lake copper, which is now quoted £68 10s. as against £45 December, 1886, though not originally due to the Calumet and Hecla fire, has been greatly intensified by this unfortunate accident.

This expected rise, instead of commencing a year ago, and moving gradually in accordance with the statistical and technical conditions of the industry, has come suddenly and has bounded upward with an energy that must soon bring on a relapse, not, of course, to the old ten cent basis, but to a degree that may tend to demoralization.

From good sources we learn that the fire now burning had gained much greater headway before the shafts were battened down than that which preceded it, and it would seem that the fire has come nearer the surface. Presumably, then, the damage to No. 1 shaft will be greater than to No. 2.

How the fire originated is a puzzle to everybody, and it is consequently generally concluded that it was of incendiary origin.

It is stated now that the fire in No. 2 shaft some months ago, which was accounted for by "a boy with oily waste thawing out the pump exhaust," must have been set, for when the platform on which the pump is set was reached, since work was resumed, it was found that the fire had not come near it.

The closing of shafts at once checks combustion, and the forcing of carbonic acid gas into the mine will, of course, help to extinguish the fire; but when the burning material will be so cooled off that it will not re-ignite on the access of fresh air is pretty much a matter of guess, which can only be settled when the mine is reopened.

A gas pipe, the outer end of which is plugged, leads from the surface to a few feet below the shaft collar. At stated times a thermometer is dropped down, and the temperature noted. One day it gets hotter and the next colder, presumably as the underground currents vary.

The remains of the old fire about No. 2 shaft were still smouldering when this took place, but it would seem scarcely possible that this fire should come from that.

The indications are that it will continue to burn longer than the former fire, and that the mine cannot be reopened during the remainder of this month, and possibly not for a much longer time.

The loss to the company must be very heavy, but it is so rich it could afford it, and would only have to cut off one or two of its dear little extravagances to make up for this unexpected expense.

GEORGE SCHNEIZER, the young man who was killed on October 22, in the Harlem Electric Light Company's building, 244 East 122d street, was an inspector of lamps for the company. He received his death stroke from a defectively insulated lamp which hung in the cellar of the building.

At the office of the Harlem Electric Light Company no one would give any information about the accident. Lamps of this kind are extremely dangerous. The current used is one of great intensity. If the lamp is in order, the wires and carbons are all insulated from the frame.

Schneizer was unmarried, and lived with an uncle at 117th Street and First Avenue.—New York Sun.

[There is no excuse for the employment of dangerous electric light wires or lamps, and whoever does so should be subjected to adequate penalties.]