

later, in 1870, he made a magneto, shown in Fig. 6. Here we have a horseshoe electro-magnet mounted back of, and facing, a plate armature. It is simply a powerful electro-magneto receiver, something like, but immeasurably superior to, the instruments shown in the Bell patent of six years later.

Our readers will feel with us that the above represents a most interesting collection of instruments. In many instances, even in suits, alleged anticipating telephones are shown by models. This always casts a shade on their testimony, for the suspicion always exists that some change in construction has been made.

Prof. Van der Weyde originally used his telephones for the transmission of music. He did not at first use them for that of words. Any one who has experimented with early telephones, the Bell included, will find the articulation faint and uncertain at times.

The Reis and Van der Weyde instruments divide themselves into two classes, transmitters and receivers. It is worthy of remark that the practical working instruments of to-day follow the lines indicated by the German school teacher.

Another interesting feature of the instruments we have described is the fact that they are all American productions. There is always a certain dissatisfaction in looking to Europe for an anticipation.

It is the old story, so often retold in the history of invention, that the race is to the swift. Bell, by working out a successful telephone company, has succeeded in establishing for himself and associates the most valuable patent of the world.

More Scared than Hurt.

According to Bradstreet's careful recapitulation, there are about 43,000 workmen who are on strike in this country at the present time. The whole number of persons employed in manufactures, mining, trade, and transportation is about 5,640,000.

Origin of Sulphur in Coal.

M. Dieulefait has been inquiring why there is so much sulphur in stone coal, and why there is so little of free alkaline carbonates in the ashes. For this purpose he has analyzed the surviving species of the families of the coal plants, particularly the Equisetaceae, and has found in them a proportion larger than usual of sulphuric acid.

Scientific American.

ESTABLISHED 1845.

MUNN & CO., Editors and Proprietors.

PUBLISHED WEEKLY AT

No. 361 BROADWAY, NEW YORK.

O. D. MUNN.

A. E. BEACH.

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NEW YORK, SATURDAY, MAY 29, 1886.

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For the Week Ending May 29, 1886.

Price 10 cents. For sale by all newsdealers.

Detailed table of contents for the supplement, listing sections I through X with sub-articles and page numbers.

OFFICIAL REPORT ON THE PANAMA CANAL.

M. Rousseau, the delegate appointed by the French Government to inspect the work on the Panama Canal, has made a report which is likely to be more seriously disappointing to M. De Lesseps than was the exceedingly cautious and tentative one of the Hon. John Bigelow, who assisted at the inspection in behalf of the New York Chamber of Commerce.

GALVESTON HARBOR.

In 1874 the improvement of Galveston harbor was commenced on plans designed by Maj. Howell, U. S. A., approved by a board composed of Generals Tower, Wright, and Newton, U. S. A. The plan contemplated two parallel jetties 12,000 feet or about 2 1/4 miles apart.