

Elviras, and several others, and it is the proper selecting and combining of the fermented juices of these grapes, under carefully regulated conditions, that gives the high quality to the various still and sparkling wines made.

The still wines of this company are deserving of especial attention, all being made from the most careful selection of grapes, and they are vouched for as "pure," which makes them particularly desirable with those who want pure goods, and desire to avoid adulterations.

The Late Hayward A. Harvey.

Hayward A. Harvey, the inventor of the Harveyized steel armor plate process, passed away August 29, at his home in Orange, N. J. Mr. Harvey was born in Jamestown, N. Y., January 17, 1824.

The new process is, briefly, a method of hardening steel on the surface, or carbonizing it, and raising steel of a low grade to a higher one. The first armor plate treated by the Harvey process was made in 1890.

The Lantern in Scientific Stage Effects.

Some new scientific stage effects were introduced into a recent performance of Wagner's Die Walkure, at the Grand Opera House, Paris. The scene where the sons of Wotan, mounted on steeds and brandishing their lances, are seen in the clouds, is described as very realistic.

The latest use for aluminum is for street car tickets, and it must be conceded that the metal is singularly adapted for the purpose. A Michigan street railway has just made its first issue of these light and ornamental tokens, which are about the size of a silver quarter dollar.

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NEW YORK, SATURDAY, SEPTEMBER 16, 1893.

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(Illustrated articles are marked with an asterisk.)

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No. 924.

For the Week Ending September 16, 1893.

Price 10 cents. For sale by all newdealers.

Table listing contents of the supplement including I. AGRICULTURE, II. CHEMISTRY, III. CIVIL ENGINEERING, IV. ENTOMOLOGY, V. ETHNOLOGY, VI. GEOLOGY, VII. HYGIENE, VIII. MECHANICAL ENGINEERING, IX. MISCELLANEOUS, X. PHYSICS, XI. TECHNOLOGY, XII. NAVAL ENGINEERING, XIII. PHYSICS, XIV. TECHNOLOGY.

A CHANCE FOR AMERICAN CONTRACTORS.

In another column will be found the advertisement of the Public Works Department of Cairo, Egypt, in which bids are called for relating to the construction of certain street railways in that city and vicinity.

The administration of the Egyptian government under the English advisory auspices has been attended with great success. The financial condition of the country is stable and reliable. In all departments of the government valuable reforms have been made, and nearly everything is now conducted on modern methods.

SAFETY ON RAILROADS.

Within a very recent period several fatal railroad accidents have been chronicled which were of a nature as to point to one conclusion—the futility of trusting to direct human agency for protection. A railroad is assumed to be of the highest standard when equipped with a block system.

Such is the block system, by which all first-class railroads are guarded. In some cases it is applied by operatives stationed in watch towers along the line of the road. In other cases the manipulation is entirely automatic, electricity, pneumatic and hydraulic power being employed to work the signals.

The block system is designed to prevent collisions. Its defect is at once apparent. It relies absolutely on human agency to prevent accident. Its functions end with the display of a warning signal. It has been proposed to add to it an apparatus which would strike a lever or valve handle on the engine, thereby throwing the brakes into action or shutting off steam if the engine passed a danger signal.

In 1853, on the New Haven road, a very bad accident, resulting in the loss of 46 lives, occurred at South Norwalk. A drawbridge was open and the danger signal, announcing this fact, was properly shown. Yet the engineer of an express train ran by the signal and the train plunged into the gap.

Throughout the whole system of railroad signaling runs the element of uncertainty. A train is brought to a stop between stations, owing to some accident. A signalman with a lantern by night or flag by day