

## A SAN FRANCISCO FIRE FIGHTER.

BY HERBERT I. BENNETT.

The San Francisco Fire Department has in its service a machine bearing somewhat the appearance of a small cannon mounted on two wheels. Instead of pouring out shot and shell like the latter, the machine in question, however, does pour a great volume of water on a fire with telling effect. This piece of apparatus is known as the Monitor Battery, and was invented by Mr. H. H. Gorter, constructor for the San Francisco Fire Department. It is designed to take the place of a water tower in small confines where the latter cannot be taken and can be used in a basement blaze and up to a fourth story inclusive. Several lines of hose are connected, thus concentrating a great force of water that is easily handled by one man.

The nozzle is provided with tips so that either a 2, 2½, 2¾ or a 3-inch stream can be thrown. When not in action, the table upon which rests the huge nozzle is suspended so as to throw the weight on the wheels and relieve the horse of the strain. When required for action, the table is released by a lever which throws it forward to a level, at the same time moving the center of gravity forward. The weight is thus thrown between the toes at the end of the shaft and the axle, giving the machine stability to withstand a back pressure of fifteen hundred pounds to the square inch. The toes referred to are spikes under the end of the shaft for the purpose of obtaining a purchase in the ground to prevent moving.

The vertical movement of the nozzle is on an improved ball and socket joint, allowing a free flow of water at any angle. A roller bearing is provided for traveling the nozzle through a horizontal arc which reduces the friction caused by back pressure to a minimum. On the rear end are six short flexible connections or pieces of hose for connecting the battery with the various lines of hose leading from the engines. When not in action the connections are suspended beneath the rear end of the apparatus. They are automatically released by the tilting of the table when required for service. The tilting of the table also releases a strut or brace which assists in relieving the strain on the shaft and frame due to back pressure from the nozzle.

The total weight of the battery complete is 1,650 pounds, and owing to its construction and free waterway, a solid stream is thrown ranging from 200 to 300 feet, according to the pressure. The nozzle with its tremendous pressure can, as before stated, be easily handled by one man, who guides it with a small lever. At the Baldwin Hotel fire, two batteries kept the blaze under control on the Market Street side, showing their value in cases of large conflagrations. They are splendid for handling big lumber fires also. From a point of economy, the machine deserves mention too, because it requires but one man and one horse, whereas a water tower takes three men and three horses to operate it. The inventor intends to make them automobiles in the near future.

## Moving Millions of Gold.

Bigger heaps of gold than ever were buried by Capt. Kidd, or carried by rakish craft in the palmy days of the Spanish Main, are week in and week out hauled around New York city, to and from banks and steamship wharves, in a commonplace truck.

The business of moving the gold used in the settlement of commercial balances is always active in New York, for the credits and debits between the local banks, and, in a wider sense, between the United States and foreign countries, are daily shifting and must constantly be met, says The Saturday Evening Post. Of course a growing share of the exchanges between banks is made by the check system and the clearing house, so that after the associated banks, by their representatives, have met together in the morning of each business day and exchanged the checks on each other taken in the previous day's transactions, only the differences have to be paid in actual money.

Thus it happens that the actual exchange of cash is

generally less than 10 per cent of the total clearings, or exchanges of checks. For example: One day recently, when the New York banks had the largest clearings ever recorded—more than \$352,000,000—all that immense sum was paid and received by the use of only \$15,000,000 of actual money. Ordinarily, this money would have been in the form of greenbacks, but for some months bills have been very scarce, and clearing-house balances have uniformly been paid in gold, as are foreign balances.

When the balance of trade demands actual shipments, New York bankers or foreign exchange houses call in the services of Mr. Barkley, a rotund truckman well known to everybody in Wall Street. He has a monopoly of the trucking of gold there; all the bankers know and trust him, as they did his father for more than forty years. Barkley has a slate hanging in a doorway near the Stock Exchange, and his trucks stand near by when not busy. The bankers send a

some agile thief get away with one of the little kegs. But the little kegs are their own protection; the \$60,000 they contain makes troublesome lifting for two men, and only a Sandow of a thief would have any chance to get away in safety.

When Barkley or his European confreres bring a consignment aboard, it is carefully stored in the ship's vault, and the purser takes sole charge of the keys. The first officer of the vessel sees that the vault is covered fathoms deep with the solidest kind of freight. If any robberies have occurred, they have never been recorded.

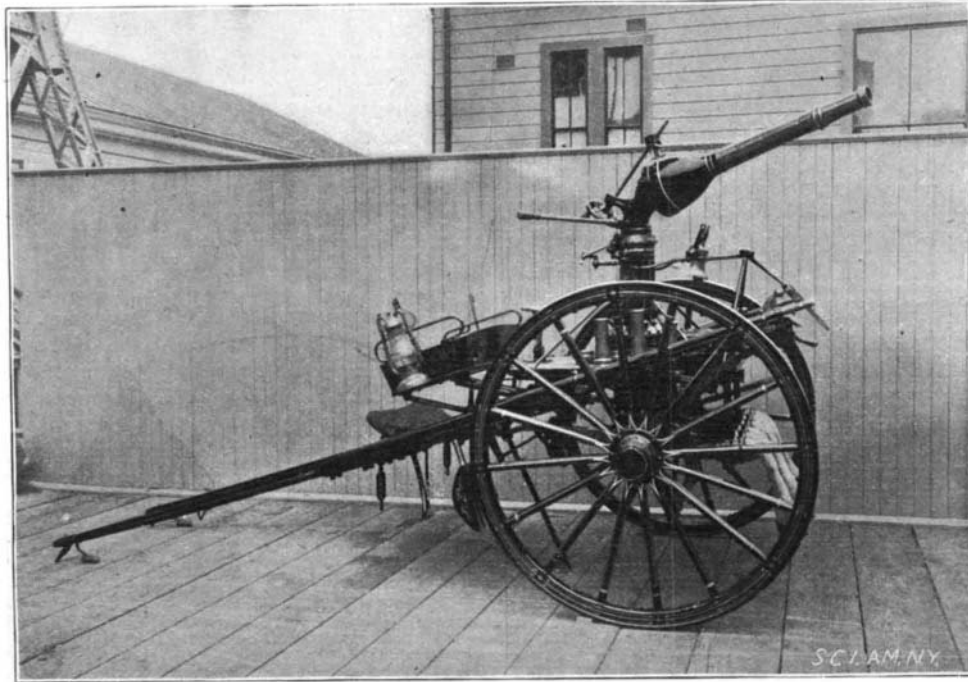
## The Ebony of the Ancients.

Ebony was known and highly esteemed by the ancients as an article of luxury, and was used by them for a variety of purposes, says The Jeweler's Weekly. In India, it is said that it was employed by kings for scepters and also for images. On account of its supposed antagonism to poisons, it was used largely for drinking cups. Its use has extended continuously down to the present time, and in England, as well as on the Continent, it has always been held in high esteem by the wealthy for toilet articles and boxes. In France particularly, the manufacture of ebony goods has attained a high degree of perfection. Within a few years its use in the United States has increased remarkably, in a large measure, no doubt, on account of its combination with silver, which is believed to have originated in this country. The striking contrast of the dead black of the wood and the brilliant white of the silver has from the outset commended it to the American public. This combination, it is said, has now been introduced into England and other European countries. The silver mounting of the ebony gives scope for the taste and originality of the silversmith. The style of decoration most frequently used on the larger pieces consists of a border of scrolls, of flowers, or of a combination of scrolls and floral designs. The variety and degree of elaboration of the borders shown are almost endless. Sometimes the border extends only half way around the edge of the article. A silver shield, on which the initials of the owner may be engraved, is generally placed in the center of the piece. This shield is occasionally replaced by a monogram, more or less elaborate, which may be the only mountings used. Large initials are also used instead of a monogram. Another style of decoration consists of a beaded edge of silver. While the border is occasionally used on smaller pieces, the decoration for these is generally confined to a shield or monogram. The shield may be combined with floral designs or scrolls. The name ebony is given to the wood of several varieties of trees. All kinds of ebony are distinguished for their great density and dark color. The wood in all varieties is heavier than water; the heaviest varieties are the darkest. The other grades require a considerable amount of staining to make them black. Ebony is of a uniform color throughout, and will not show any deterioration even from long-continued use.

There are three varieties of ebony well known in commerce. The ebony from the Gaboon coast of Africa is the darkest. The Madagascar ebony is the densest. The Macassar ebony furnishes the largest pieces. Almost all ebony is sent in the form of logs to London, and from there shipped to the various countries in which it is used for manufacturing purposes. It is sold by weight. Imitations of ebony can always be distinguished by their lighter weight, and the cheaper imitations can be detected by merely scratching the surface.

## Wyoming Fossil Discoveries.

The party of scientists who have been investigating the Wyoming fossil beds are having remarkable success, and a large number of boxes containing fossil remains have been sent to the State University, and the work of restoration will soon be begun under the direction of Prof. Wilbur C. Knight.



THE GORTER "BATTERY" UNLIMBERED FOR ACTION.



A SAN FRANCISCO FIRE FIGHTER—THE "BATTERY" IN ACTION.

clerk or messenger for Barkley when they want any carting done. The last time I passed that door the slate said, "Call at J. P. Morgan & Company's and see Mr. King." Another day it may contain one or half a dozen orders from the big houses, and thither Barkley or one or two of his men go to do their bidding.

Gold in transit is packed into small rouleaux, wrapped carefully in little canvas bags. The small bags are incased in bigger and heavier ones. The whole thing is then put into a small keg and the interstices are filled with sawdust. This is to prevent abrasion, for gold that is much worn by rolling around loses considerably in value.

Some gold stays in its wrappings for months and years together. It may in that time have traveled a dozen or twenty times across the ocean, or it may have lain untouched in bank vault or clearing-house. When moved about on the trucks, it might be supposed that a big guard of men would be necessary to watch lest