

AN ANCIENT ROMAN CITY IN ALGERIA.

Second only in antiquarian and historical interest to the discoveries at Pompeii are the ruins of the ancient Roman colony of Timegad, or Timegatte, in Algeria. The city lies among the spurs of the Atlas Mountains, about fifty miles due south of Constantine, and the same distance northeast of Biskra. It was known in Roman times as Thamutuda, Thamugas, and Tamugada, and must have been a place of some importance, for the ruins are about three-quarters of a mile in width and very nearly a mile and three-quarters in length, if we include the Byzantine fortress and the tombs cut in the rocks close by. The city was formerly the center of a wide stretch of fertile country in the center of the granary of the empire, and was also a military station of great importance, by which the mountain tribes of the neighboring Atlas were held in check. Through it ran six Roman roads, connecting it with Lambessa, Diana Veteranorum, Constantine, and other flourishing Roman colonies; and it has been conjectured that the veterans of the thirtieth legion were established here in recognition of their services in the Parthian war, A. D. 106. The country round is now utterly deserted, and there are no inhabitants near the spot, the nearest Arab settlement being some miles off. During the latter empire Timegatte was a very flourishing city, and during the fourth century was one of the great African centers of religious agitation. Many of its bishops were celebrated men, and Optatus, who was head of its church at the end of the fourth century, was regarded as the chief of the Donatists, the strictest among the sects of the church in Africa.

Timegatte seems to have been ruined and deserted about 500 A. D., but the citadel was rebuilt and the city again inhabited toward the middle of the sixth century; and when the Arab invasion took place it was a Christian town, and possessed a church built after the restoration of the city. However, owing to the disturbed state of the country, at the fall of the empire the city was again deserted.

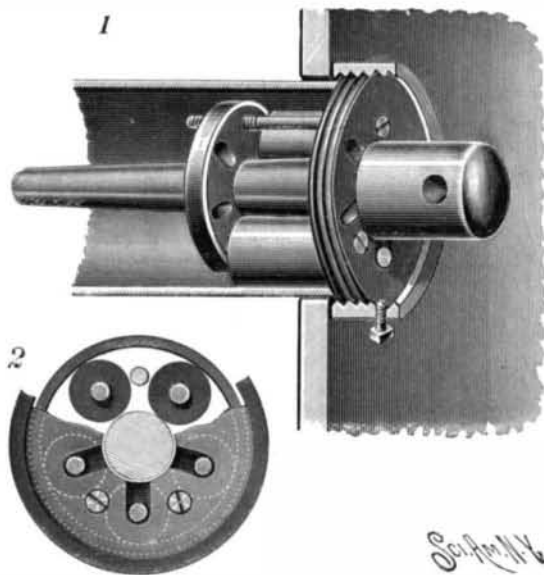
A number of statues, inscriptions, and earthenware vessels are scattered about the ruins, and the houses which are still standing enable us to reconstruct the different quarters of the town without any very great difficulty. The monuments still left in more or less preservation are situated to the north of the watercourse which intersects the plain. They are: the Forum, which has an imposing appearance, with its pavement still intact, its tribunes, its inscriptions, and its columns, which supported a long colonnade running from north to south, and looking out over the fertile valley at the foot of the mountains; the temple, a remarkable ruin full of curious detail, which is supposed to have been a temple to Jupiter; the theater, which still remains in a very fine state of preservation, and is situated on the slope of the hill against which the city is built; a gateway in a half ruined condition; a smaller temple; and the principal street, which is a fine broad thoroughfare flanked on either side by magnificent columns, and terminating in a triumphal arch. This arch is in an almost perfect state, and is one of the most important monuments of the Roman period existing in Algeria. It has three openings, the larger one in the center, and a smaller one on each side, with a niche for a statue above it. Four fluted columns with Corinthian capitals flank the openings, and an entablature connects the pillars and arches. Our engraving shows what remains of this triumphal arch.—The Graphic.

Copyright in Photographs.

A decision by an English court has determined the rule as to photographic portraits. The copyright belongs to the sitters when they order the portrait and pay for its being taken. The only claim for copyright by the photographer is when he invites sitters to have their likeness taken, and when they assent to sit without payment, doing so for purposes of publicity or advertisement.

AN IMPROVED FLUE EXPANDER.

For quickly and conveniently expanding boiler flues in place in the flue sheet, to prevent leakage, the implement shown in the illustration has been devised and patented by Mr. David W. Patton, of No. 914 Concannon Street, Moberly, Mo. Fig. 1 represents a side sectional view of the improvement, and Fig. 2 is a face view of the outer head, the stock consisting of an outer and an inner head. In the outer head are re-



PATTON'S FLUE EXPANDER.

cesses extending radially from a central opening and in the inner head are aligned slots, the slots and recesses receiving the trunnions of five rollers, arranged between longitudinal rods connecting the two heads. The central apertures in the two heads form a passage for a tapering mandrel, whose outer head is adapted to be taken hold of by a suitable tool to force the mandrel inward, at the same time pressing the rollers outward and rotating them. When the mandrel is withdrawn, the rollers may be readily taken out of and replaced in the stock. The outer head forms on its inner face an abutment for the projecting end of the flue or pipe to be expanded, and on this head screws a sleeve secured in place by a set screw, the inner edge of the sleeve abutting against the outer

face of the flue sheet, and the sleeve being adjusted inward or outward as desired.

Paper Trays and Battery Jars.

An inexpensive photographic tray or battery cell, which is practically water, acid, and alkali proof, may be made out of a pasteboard box by covering it with a coating made by melting together equal parts of paraffine and guttapercha chips. The guttapercha should be melted first over a slow fire, the paraffine is then added and the whole composition thoroughly mixed and brought to a very fluid condition. It is then poured into the box or box cover, which should be dry and warm. The composition should be allowed to run along the edges, so that the entire inside of the box is waterproofed, the excess is poured off and the box is then allowed to cool. The outside should then be waterproofed in the same manner. In case any spot fails to receive the composition, some of it may be made into sticks and applied to the bare places with the aid of a hot iron, which may also be used to smooth up any unevenness of the surface. Some photographers like ridges in the tray to keep the plate off the bottom and to facilitate in lifting it out. These ridges can be easily built up with the aid of a hot iron. These pasteboard trays are light and are not liable to be broken by a fall. Old dry plate boxes may be utilized for this purpose. Wooden trays may be waterproofed in the same manner and can be used for batteries if desired.

Modern War Ships.

Old-fashioned naval officers have a habit of comparing the new ships with the old, to the disadvantage of the former.

The deck of the modern man-of-war is no longer a broad, open space up and down which the eye may roam, seeing all that goes on. It is cut up by all sorts of contrivances having relation to the business of the craft, so that one really sees at any one time only a little corner of the deck. As for the officer of the deck, he in many ships now walks aloft on the bridge out of communication with his fellows, a solitary figure, able, indeed, at a touch of the electric bell, to set in motion the most powerful machinery of modern warfare, but no longer able to exchange a friendly word with his fellows.

There is one serious drawback to the modern steel ship that is not the result of any mere sentimental consideration, and that is the deathlike coldness of the interior. It is possible, indeed, to warm the ship with steam, but nothing can warm the sides in cold weather, and the man that sleeps near the unsympathetic steel is liable to contract rheumatism in an unconscious effort to warm it by the sacrifice of his own vital heat. The closed air port drips icicles and the seaward wall of the state room is as cold as an ice box.

The Largest Steamer Company.

The North German Lloyd—Norddeutscher Lloyd—has from a small beginning worked its way to the very front, being now the largest steamer company in the world. The company enjoys a subvention from the German empire for five lines, on the condition that the steamers call at certain ports, that the mail-carrying boats shall be built in German shipyards, and that the speed be at least twelve knots. The company capital is now 83,000,000 marks, or about \$20,750,000, and its fleet consists of 83 steamers of an aggregate tonnage of 242,367 tons, besides tugboats. The company's traffic comprises 22 lines, viz., 8 European, 6 North American (twice weekly from Bremen to the United States), 2 South American, 5 to Eastern Asia, and 1 Australian. The staff of the company consists of 8,000 men, and in the year 1873 there was formed a seamen's and pension fund, by donations and an annual charge of 2½ per cent of the pay. The captains have to pass through the various degrees, and if there is an accident, they have to resign.



THE ROMAN TRIUMPHAL ARCH AT TIMEGATTE.