

American Excavations in Greece.

The American School of Classical Studies at Athens was founded in 1882 under the auspices of the Archaeological Institute of America. It has enjoyed the steady favor of the Greek government. Its excavations have been prolific of results. A review of these by J. Genadios appears in the January Forum, says the New York Sun. By 1885, when the finds made in Asia Minor by the Wolfe Expedition, so called because its expenses were borne by Miss C. L. Wolfe, of this city, had been added to those secured during the previous two years, M. Waddington wrote: "European scholars have hailed with delight the entrance of America into the old field of archaeological research and will welcome such additions to our knowledge of Asia Minor as are contained in the account of the Wolfe Expedition." By this time Assos had been excavated and the site of the New Testament Lystra, as well as the sites of several ancient cities, determined.

Systematic explorations may be said to have begun in 1886 at Thorikos, within easy reach of Athens, early celebrated in fable as the home of Kephalos, the lover of Prokris. It is referred to by Homer and Herodotus, as well as others, and had fallen into ruins before the first century of our era. The remains of Thorikos theater had long been a puzzle. The American excavations showed it to be nearly the smallest of Greek theaters known, responding to the needs and poor resources of a small rural community, with seating capacity for barely 5,000 spectators. There is no trace of a stage; the orchestra was a complete circle, showing that both choruses and actors performed on the floor of the orchestra. This crude rustic structure undoubtedly preserves the arrangement of the archaic Greek theater. In this same year the American school excavated the theater of Sicyon, where Hesiod places a contest between gods and men, a town that through out its duration was more famous as a center of art than of political activity. Its school of painting produced Apelles. The object of the American excavations was to obtain the plan of the Sicyon theater one of the largest in Greece.

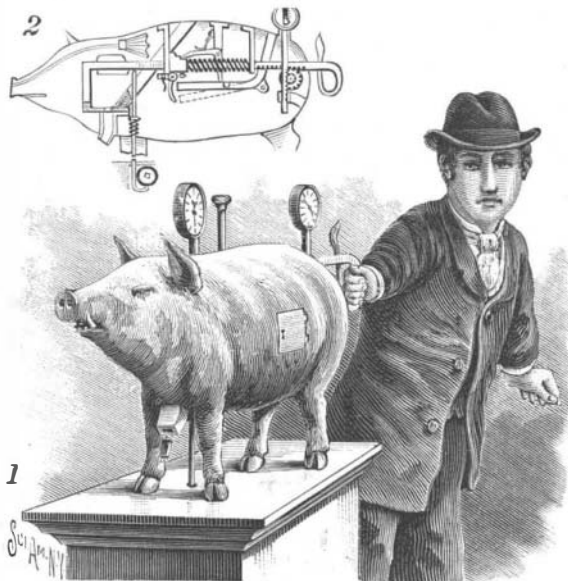
The two front rows of seats were found to consist, as usual, of seats of honor made of porous stone, each having a back and arms. As many as five other rows are cut in the rock. Fourteen stairways divide the auditorium into thirteen divisions. An elaborate drainage system forms a prominent feature of this theater adequate to carry off a heavy rainfall. But was drainage the sole purpose of an imposing aqueduct running under the orchestra and communicating with a line of earthen pipes under the stage? Complete excavation showed this to connect with a tank, and this tank was mainly intended for stage effects on the orchestra, the aqueduct also serving as a concealed passage way for the actors. Certain statements of Greek authors confirm this explanation. Certain large and small holes, worked at regular intervals in the stone floor, are shown to have served to secure the wooden columns of the early Greek stage.

An important discovery in connection with the history of architecture was that of two arched passages built without a trace of mortar or brick and corresponding with the masonry of the Hellenic walls that underlie the Roman work. These passages are therefore undisputable Greek work. When considered together with a similar instance in the Senate House of Olympia, they establish beyond a doubt the fact that the arch was not a Roman invention imported into Greece, but originated with the Greeks themselves, though used by them, as

it would appear, only in underground structures. This review is only a beginning of all the work done by the American school, but it is at least suggestive of the value of its operations.

AUTOMATIC STRENGTH TESTER AND VENDING MACHINE.

The curious and novel nickel-in-the-slot machine shown in the accompanying illustration has recently been patented by Mr. John Milo, of Williamsbridge, New York City. As will be seen from the sectional view, the mechanism is inclosed in a case formed to represent some kind of animal, and it is so arranged



AUTOMATIC STRENGTH TESTER AND VENDING MACHINE.

that, by placing the purchase coin in a slot, and applying strength in the form of a pull or a blow to the proper handle, the force applied will be measured upon a dial and the article of purchase will be automatically delivered to the purchaser.

A horizontal bar extending longitudinally through the body terminates in a handle which is shaped to represent the tail of the animal. This is kept in its normal position by a coil spring. At its front end it is bent down and back to form a flat, horizontal plate, in which is cut a hole large enough to receive a package of the articles to be sold. This plate slides horizontally beneath the end of an inclined tube, which is filled with a supply of these packages, and when the bar is drawn forward the hole is brought beneath the end of the tube and receives one of the articles therefrom. Upon being released, the bar is drawn back by the coil spring

and carries the article over an outlet tube, through which it falls and is delivered to the purchaser.

The purchase coin falls into an elbow tube, which is so pivoted that the weight of the coin causes it to rock forward and release a catch which prevents the horizontal bar from being moved, except when the coin is inserted. After releasing the catch, the coin rolls out of the tube into the body of the figure, from which it can be recovered by unlocking a door placed conveniently in the side of the machine. At the rear end of the bar is formed a suitable horizontal rack, whose teeth mesh with a pinion which in its turn serves to operate a vertical rack. The latter rack terminates in a rod, which, extending through the back of the animal, carries a pointer which indicates on a graduated scale the force of the pull.

At the forward end of the horizontal bar are attached two cams, one above and the other below. The first serves to compress a small bellows, which is arranged to produce a noise in imitation of the animal's cry. The lower cam depresses a rod which starts a music box concealed in the base of the machine.

The second indicator scale and the vertical rod shown projecting from between the shoulders of the animal are for registering the force of a blow. The internal mechanism is similar to that already described, the article being automatically presented to the purchaser as before.

THE BOSTON GAS EXPLOSION.

We have several times illustrated the Boston Subway, which is intended to give relief to the traffic on some of the densely crowded streets of that city by running the trolley cars in the subway.

One section of the subway is practically finished, but at the corner of Tremont and Boylston Streets the space between the roof of the subway and the street was left open to permit of some repairs being made to pipes, and the excavation left open was boarded over. For several days before the accident, which occurred on Thursday, March 4, at 11:43 A. M., the smell of gas had been noticed coming from this cutting, but little attention was paid to it. The corner where the accident occurred is one of the busiest in Boston. The explosion occurred just inside the Common, at the northwest corner of Tremont and Boylston Streets, which during the busy hours of the day is always thronged by pedestrians. The streets which come together at this point are two of the most important of the city's thoroughfares, and it was largely on account of the congested traffic at this point that the subway was undertaken. It is an everyday sight to see electric cars in a practically unbroken line extending along Tremont Street fronting the Common, and up Tremont Street beyond Boylston Street, toward the west, Boylston Street is equally crowded. The cutting, which was covered over

by boards, was crossed by two six inch gas mains. It is believed that a spark from the wheels of an electric car caused the sad havoc which produced the most serious results ever caused by an illuminating gas explosion in the whole history of Boston, causing nine deaths. The exact moment of the explosion was indicated by many of the clocks in adjacent buildings, which were stopped by the shock.

The sidewalks were crowded and carriages and cars were passing in almost unbroken succession. A Mount Auburn car was rounding the curve from Boylston Street into Tremont Street, a Back Bay horse car was passing it in just the opposite direction, while a Brookline street car was crossing Tremont Street into Boylston Street. Just as the three cars were



SCENE OF THE BOSTON GAS EXPLOSION LOOKING TOWARD THE MASONIC TEMPLE.