

## SOME NOTABLE STEAM YACHTS.

We present two engravings of steam yachts which have recently been built in Scotland for American owners. We refer to the steam yacht "Andria," built by the Ailsa Shipbuilding Company, to the order of Mr. John E. Brooks, of New York, and the steam yacht "Mayflower," built by the Clydebank Engineering and Shipbuilding Company, Limited, at Clydebank, near Glasgow, to the order of Mr. Ogden Goelet. The photographs and the particulars of the yachts were furnished us by Mr. A. J. Sinclair, of Gourock, Scotland.

The "Mayflower" is the larger of the two boats. It is a steel twin screw yacht of 1,806 tons. It is the eighth largest yacht in the world and was built from the design of Mr. George L. Watson, of Glasgow.

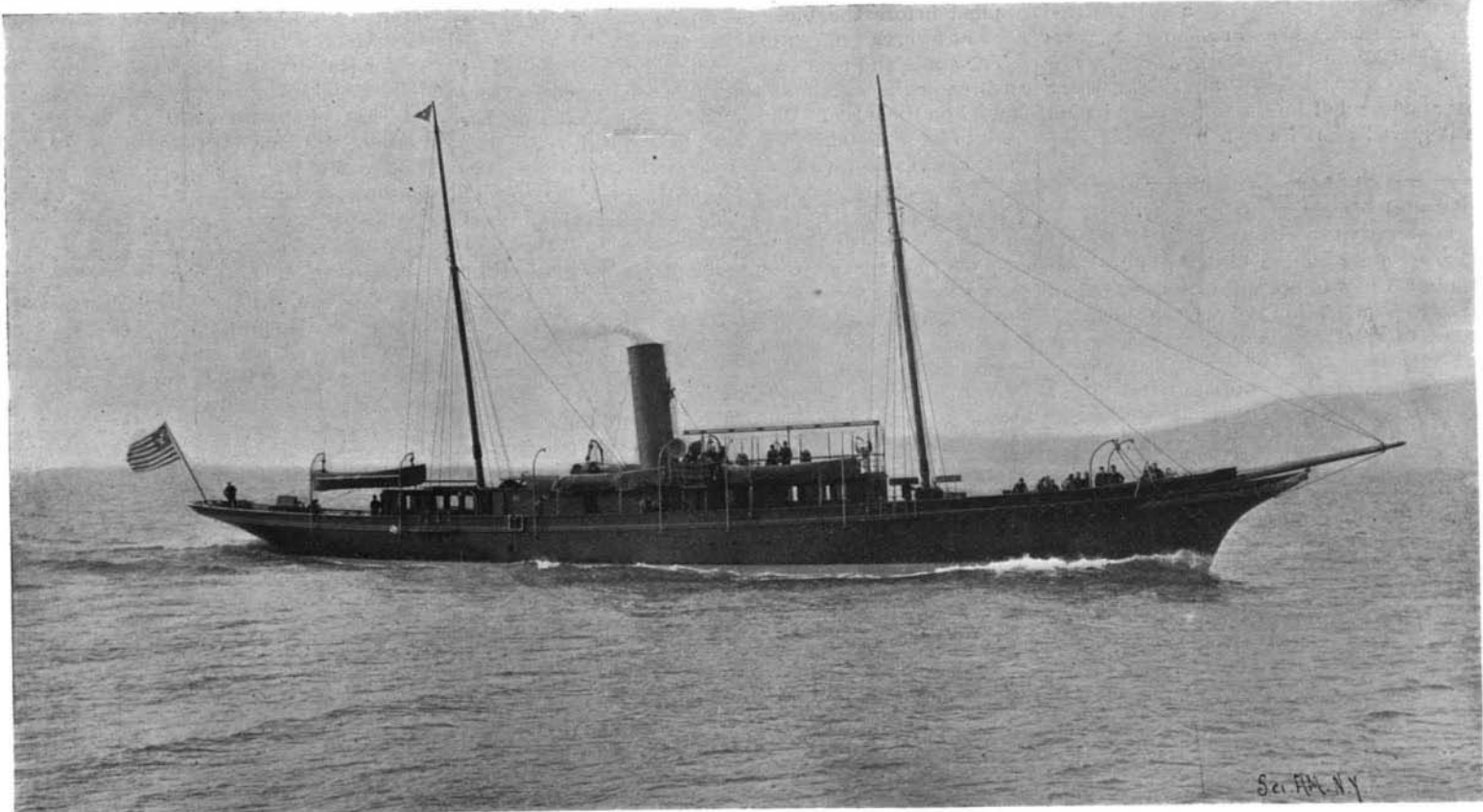
The "Mayflower" is built on the spar deck principle,

the builders, consist of two sets of inverted triple expansion engines having eight cylinders, the diameters of which are 22½, 38 and 40 inches respectively, with a piston stroke of 27 inches. Steam is supplied by two double-ended return tubular boilers. The auxiliary engines on board are very numerous, including a refrigerating plant on the Kilbourn system. There is duplicate electric machinery, as well as a large battery of accumulators. Two powerful search lights are provided.

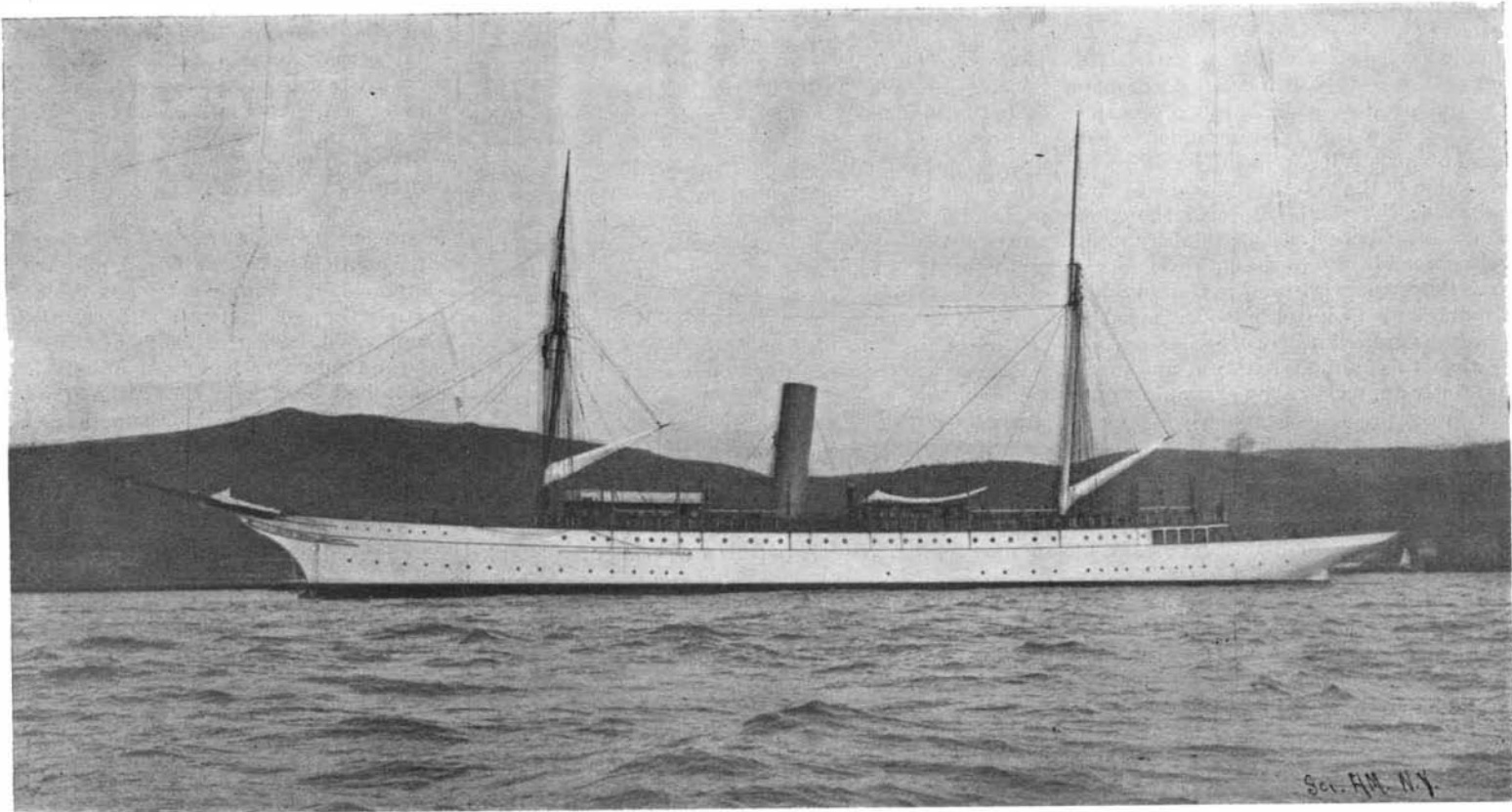
The "Mayflower" was launched at Clydebank, November 7, 1896. Her trial trips began on May 3, 1897, and on May 6 her official speed trial took place, the mean speed attained for several hours with continuous steaming being 16¾ knots per hour, equal to 19.288 statute miles per hour. The engines indicate 4250 horse power.

"Mayflower" built at Clydebank from Mr. Watson's design. It is exactly the same as the "Mayflower," and was launched on the 20th of February, 1897, when she was christened the "Nahma."

The "Andria," the other vessel which we illustrate, was made from the designs of Mr. G. L. Watson. She was constructed entirely of steel and has a clipper stem and square stern and is lightly rigged as a two-masted schooner, with two pole masts and bowsprit. The length on the load water line is 161 feet; the breadth is 23½ feet; the moulded depth of the hull is 13.7 feet; the tonnage is 433 tons according to Thames (yacht) measurement. The hull is divided into six watertight compartments by five bulkheads. She was launched on the 18th of February, 1897. She was towed to Glasgow to have her machinery and boilers



MR. J. E. BROOKS' ENGLISH BUILT STEAM YACHT "ANDRIA."



MR. GOELET'S NEW STEAM YACHT "MAYFLOWER."

with a well aft of the raised forecastle head and forward of the foremast, while the promenade deck extends from the foremast to within a few feet of her stern. It is rigged as a schooner, having two masts with fitted topmasts. She has a standing bowsprit and running jibboom. Her dimensions are as follows: Length on load water line, 275 feet; between perpendiculars 288.8 feet; while the length from over the figurehead to the taffrail is 320 feet; the breadth is 36.7 feet; the depth of the hull is 17.7 feet. The net and gross tonnages are respectively 1008.89 tons and 1778.93 tons, with a tonnage of 1806 tons according to Thames yacht measurement, or 378 tons smaller than Mr. W. K. Vanderbilt's steam yacht "Valiant," which is the largest yacht in America.

The "Mayflower's" engines, which were supplied by

On June 5 she was towed to Gourock Bay, where she remained until the next day, when she left for Cowes. It was while she was in Gourock Bay that our correspondent had an opportunity of examining the beautiful vessel. Accommodations are provided for the crew and officers, who number ninety men all told. The space from the stem to the foremast is given up to them, but the rest of the vessel, fore and aft of the engines and boilers, is taken up by cabin space. The reason that the vessel was sent out in the unfinished state as regards some of the paneling and upholstery was that Mr. Goelet wished to have the "Mayflower" at the review at Spithead, where all the important yachts of Great Britain and many of those from abroad were in evidence at the Jubilee Naval Review.

Mr. Robert Goelet is having a sister vessel to the

put in place by Messrs. D. Rowan & Son, of Glasgow. On May 22 the yacht went on an official trial trip: a mean speed of 14.66 knots being obtained for a distance of 31.472 miles. The engines, which are of the triple expansion type, made 159 revolutions per minute with a pressure of 175 pounds of steam; they indicated 1,200 horse power. The diameters of the cylinders are 16, 26 and 41 inches; the stroke of the piston is 27 inches. Steam is supplied by a single ended multitubular boiler 14 feet in diameter and 10½ feet long. There are three corrugated furnaces. The vessel has bunker space for 70 tons of coal. In the engine room there are a number of auxiliary engines, including refrigerating, pumping, electric light engines, etc. The electric lighting plant supplies the 250 lights and a search light. The crew are berthed forward, aft of which are the

officers' quarters. The deck erections are of teak; the forward deck house, which will be used in warm climates as a dining room, is done up in mahogany. From here a staircase leads down to the dining saloon, which is an elaborate apartment, the sides of which are of ebony. Throughout the cabins there is a complete installation of electric bells and hot water heating arrangements. Forward of the saloon on the port side is Mrs. Brooks' room, which is finished in rosewood. Opposite Mrs. Brooks' room is the owner's room, adjoining which is a light bathroom and lavatory, the floor of which is mosaic. Aft of dining saloon, on the port side, is the pantry, with a lift to the galley, which is aft of the forward deck house. Near the pantry there is plenty of storage accommodation. Aft of the engine and boiler casing there is the after deck house, which will be used as the smoking room. It is a nice light compartment done up in rosewood. Going down the staircase from the smoking room we come to two handsomely got up staterooms on the port and starboard side. These are excellently furnished, the paneling being of sycamore wood. Aft of these rooms are a large stateroom and the ladies' cabin, both finished off in white enamel. The "Andria" carries quite a complement of

were also largely used among the Greeks, and they are credited with the invention of the hot air bath. The baths of the Greeks and probably of all the other European nations were on an insignificant scale as compared with those that eventually sprung up among the Romans.

The sturdy Romans of republican times used to throw themselves in the Tiber after exercising, but after ample supplies of water had been

accommodation of each public bath and 50 as that of the private baths, he estimates that over 62,800 people could have bathing accommodations at one time. In addition to this there was the Tiber and the streams in the Campagna.

Many of the baths were magnificent, the appointments being most luxurious. They were in a way gigantic clubs, stately and splendid pleasure houses, and from early in the morning, when they were opened, a constant stream of people passed in until they were closed at sunset. Though the baths were called "public," a small charge was made for admission. It was often only about one cent, but as cheap as this was, emperors used frequently to ingratiate themselves at times with the populace by making the baths gratuitous.

Visitors very often stayed an entire day in the beautiful buildings, enjoying the society of their friends. When the visitor entered the building, his outer wraps were given to a wardrobe keeper. He

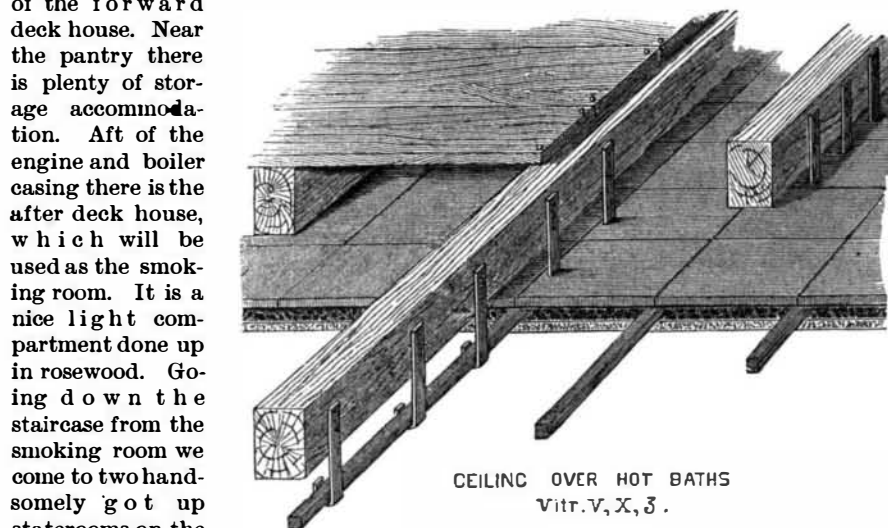


Fig. 1.—THE CONSTRUCTION OF A ROMAN BATH.

boats on her davits, including a Dartmouth built ten and one-half knot steam launch.

The "Andria" was one of the yachts which took part in the Jubilee Naval Review at Spithead on June 24.

ROMAN BATHS.

In the earliest times we have records of people bathing in the rivers Nile and Ganges. From an early period the Jews bathed in running water, using both hot and cold baths and employing ointments. Baths

brought into the city, cold swimming baths were constructed. Next public baths as well as private baths were built, and with the empire more luxurious forms of bathing were introduced, and warm bathing became more popular than cold bathing. In the third century A. D. there were in Rome 11 large public baths and 926 private baths. Prof. Lanciani has computed that the baths of Caracalla could accommodate at one time 1,600 people and the baths of Diocletian 3,600, so that taking 1,500 as an average

then met his friends and obtained the news of the day, after which he selected the variety of bath which he preferred, as warm, tepid, shower, cold or perspiration bath. After taking the bath he walked up and down the beautiful grounds, which were a feature of all the great baths. He then indulged in gymnastics or athletic sports to give him an appetite for the meal which followed. The dinner finished, the visitor could indulge in any of the many amusements which the enormous club house afforded, as concerts, literary entertainments, etc.,

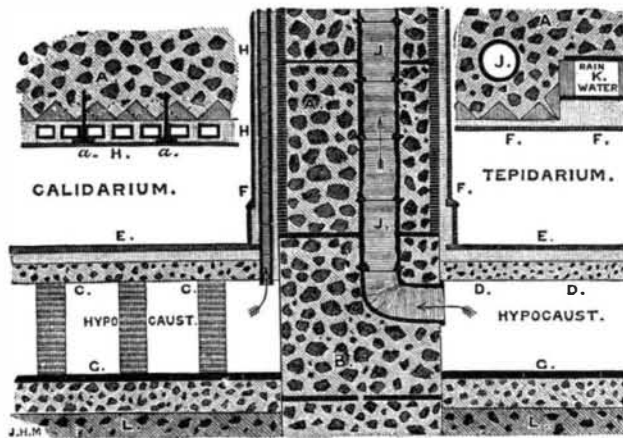


Fig. 2.—SECTION THROUGH THE FLOORS AND WALLS OF THE BATHS OF CARACALLA.

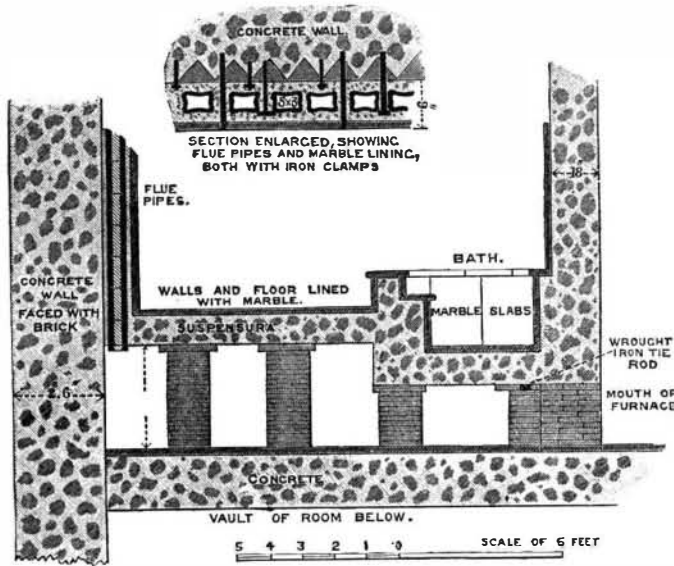
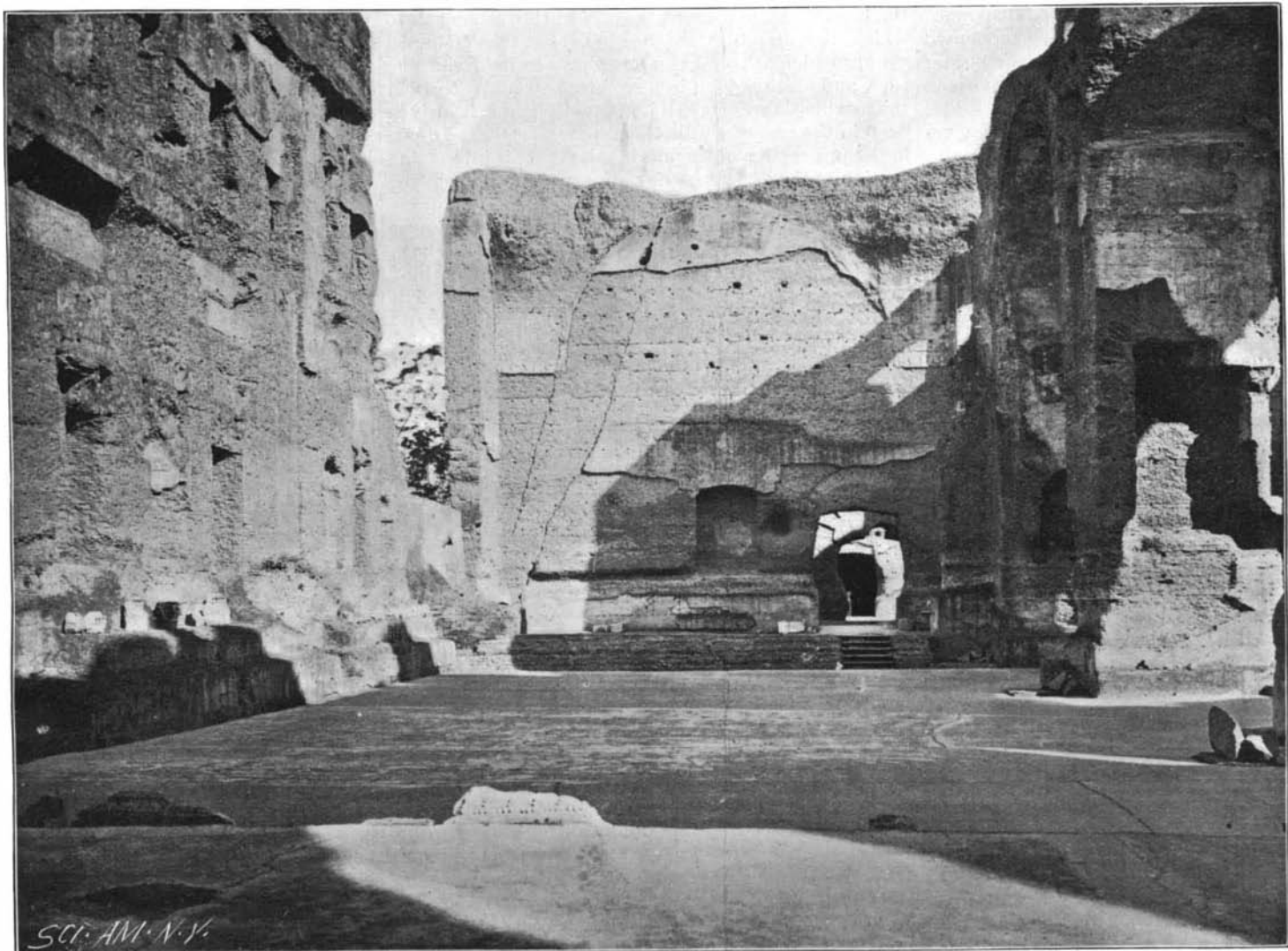


Fig. 3.—SECTION OF A PRIVATE BATHROOM IN THE ATRIUM VESTAE.



THE FRIGIDARIUM, OR SWIMMING BATH OF THE BATHS OF CARACALLA, ROME.