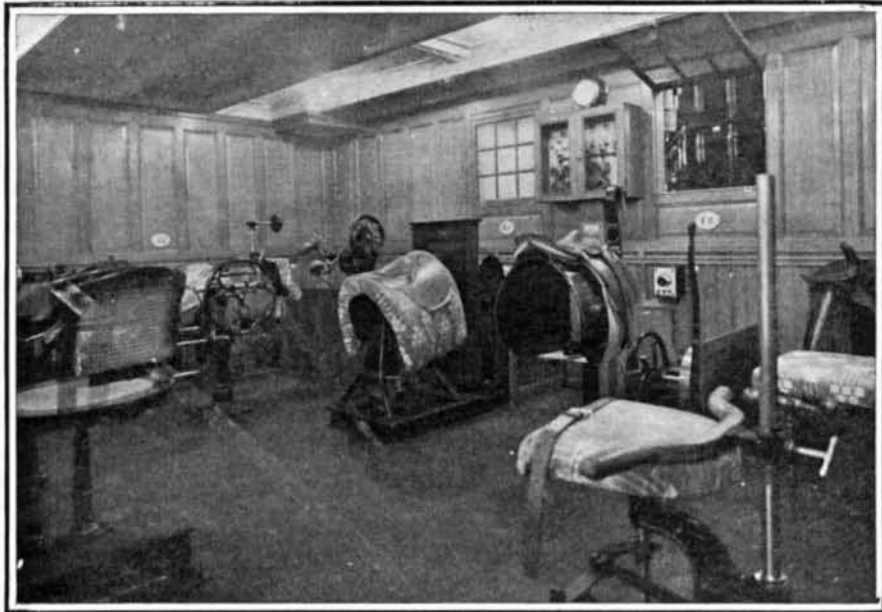


**THE TWIN-SCREW LINER "AMERIKA."**

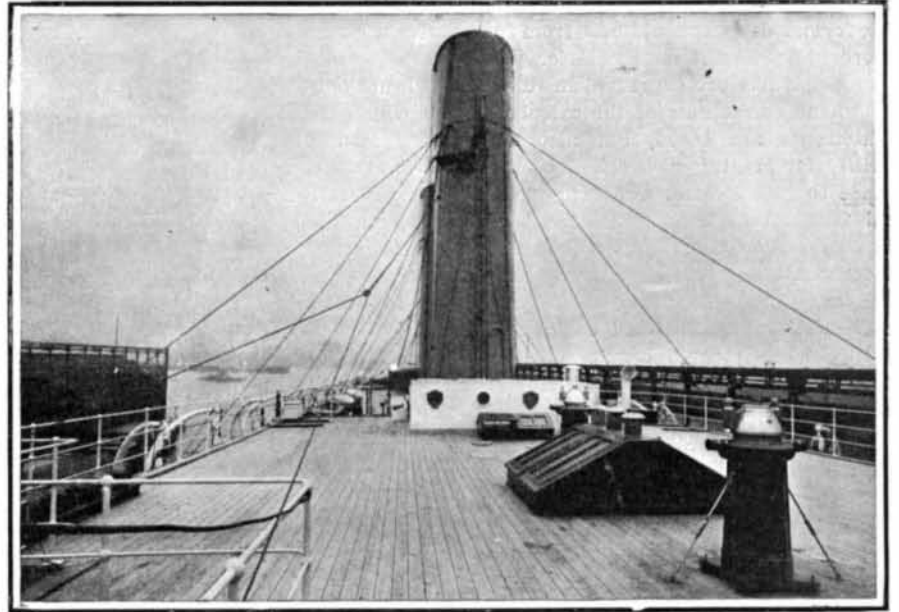
The recent maiden trip of the new Hamburg-American twin-screw steamship "Amerika" to the port of New York marked the advent of another of those vast freight and passenger steamships, whose great proportions present emphatic evidence of the enormous growth of the transatlantic freight and passenger business, and of the increasing number of travelers who

can afford to pay the cost of luxurious accommodations. Modern development of the transatlantic steamship has been along two lines, the first of which marks the growth of a type of ship devoted exclusively to mails and passengers, and driven at the highest speed compatible with requirements of accommodation, strength and safety. These ships are extremely costly to build and operate, and they depend entirely upon the reve-

nue from mails and passengers to enable them to add to the owners' dividends. The steamship companies affirm that so great are the first cost and the current expenses that these ships are not a paying proposition. The other line of development is in the direction of large freight steamers of great carrying capacity, provided with roomy accommodation for passengers, and driven at moderate speeds of from 14 to 17 knots an



The Gymnasium.



Unobstructed Promenade on the Sun Deck, 65 Feet Above the Water.



Main Stairway, Showing Florist's Store in the Far Corner.



The Ladies' Writing Room.



The à la Carte Restaurant.

hour. The vessels of this class, as a rule, charge lower rates than those of the express passenger steamers, and they, of course, take longer to make the passage. In the earlier vessels of this class, like the "Pretoria," the accommodations were not so elaborate as those on the faster boats. But so popular have they become with the public, that the steamship companies of late years have devoted special attention to the passenger accommodations, until in the latest boats they have been brought fully up to the high standard of the fastest mail boats.

To the first type belong such steamships as the "Lucania," "St. Paul," "Oceanic," "La Lorraine," "Kaiser Wilhelm II.," and the "Deutschland." To the latter class belong the "Pretoria," "Celtic," "Baltic," "Ivernia," and now the "Amerika." In this last-named vessel the passenger accommodations and the provision of conveniences tending to reduce the monotony and enhance the comfort of the transatlantic passage have been brought up to the high level of the very latest of the express steamships. In some features, indeed, the "Amerika" excels them.

The "Amerika," which was built at the shipyards of Harland & Wolff, at Belfast, is a twin-screw ship, with a length of just under 700 feet, a beam of 74 feet 6 inches, and a depth of 53 feet. Her gross tonnage is 23,000 tons, and when she is fully loaded she carries 16,000 tons of cargo. Provision is made for four classes of passengers, including 550 first-class, 300 second-

ones measuring 12 x 14 feet and 14 x 8 feet in size.

It is impossible within the limits of the present article to cover all the features of interest in a ship of this size; but among others we may mention the installation of a passenger elevator which extends through four decks; the provision of an *a la carte* restaurant, accommodating 120 persons; the provision of a thoroughly equipped gymnasium, to say nothing of all such accessories as a stateroom telephone service, a nursery with several trained nurses, a complete florist shop, and many other features that serve to bring the accommodations one step nearer to that which can be obtained in the most expensive hotels on shore. The *a la carte* restaurant is located amidship on the upper promenade deck. The idea is an elaboration of the grill-room feature which is so popular on the "Deutschland." The convenience of being able to drop in at any hour of the day or night and order from a bill of fare as elaborate as that of Delmonico's or Sherry's will be appreciated by all seasoned transatlantic travelers. This restaurant, which is easily the most splendid feature of the accommodations, is decorated in the Renaissance style. Its walls are paneled in mahogany and chestnut mounted in bronze, after the style of the latter half of the eighteenth century. The chairs are copies of the old Versailles design, of the same pattern of tapestry as used by Marie Antoinette in the Petit Trianon. The main dining room, which is on the saloon deck, is 100 feet in length by 72 feet in width.

engines are of about 15,000 horse-power, and they stand in a single room surrounded by the condensers, auxiliary engines, and electric lighting plant. This is one of the most convenient engine rooms that we have ever inspected, the whole of the machinery being placed so as to be readily accessible for attention and repairs.

Among the provisions for insuring the safety of the ship is the installation of the system of the Submarine Signal Company, of Boston, which provides a means for communicating through the water between the ship and the shore. By bell signals, the navigator can locate lightships and lighthouses regardless of weather conditions. Dangers from fog and thick weather are safeguarded against by the use of the Stone-Lloyd system for closing the water-tight bulkheads. By pushing a button on the bridge, the water-tight doors of every compartment into which the hull of the ship is divided are closed in a few seconds. As a protection against fire the latest system of extinguishing fire, that of forcing sulphuric acid gas into it, is installed, and may be put in operation immediately upon the sounding of the fire alarm.

#### Plant Poisons.

The question of the action of poisons in different plants has been examined by G. J. Stracke, a German scientist. We observe that a great number of plants show toxic secretions or excretions, but still continue



The Gallery of the Smoking Room, Showing Stairway. This Handsome Room on Two Decks is Finished in Dark Oak.

#### THE "AMERIKA": THE LATEST TRANSATLANTIC PASSENGER STEAMSHIP.

class, 250 third or intermediate class, and 2,300 steerage passengers. As the ship carries a crew of 600, it will be seen that with a full passenger list she is literally a floating town, there being altogether no less than 4,000 souls on board. This number is larger than the population of many an inland town that boasts of its opera house, court-house, churches, and all the other accessories that are thought to justify the inhabitants in dignifying it with the name of city. The "Amerika," as seen from near the water level, say from the deck of a ferryboat, presents a most imposing appearance. In the first place, she has a molded depth of 53 feet, the plating being carried up without a break to a height of three decks above the water line. Forward, the plating extends to the fore-castle deck. It is carried up to the same level for nearly two-thirds of the length of the vessel amidships, and it is here that the first and second class accommodation is provided, the great beam of the vessel rendering it possible to build the various halls, restaurants, etc., and even individual staterooms, on a scale of spaciousness that marks a distinct advance in the comfort of transatlantic travel. The staterooms are more commodious than in preceding ships, and there is not a single upper berth in the first-class accommodation. A striking feature is the special suites, of which the imperial suites are the most splendid, including bedrooms, private sitting rooms, dining rooms, and bathrooms. The rooms in these suites are of unusual size, some of the larger

and it can accommodate about 400 persons at one sitting. The walls are pearl gray, hung with copies of Bouché's best work, the furnishings are of the Louis XVI. period, and the carvings are reproductions of those at Versailles. The safety devices are of the newest and best of their kind.

Two delightful rooms are the ladies' writing room and the drawing room. The prevailing color in the first is a delicate heliotrope, and in the second a soft rose pink. The drawing room is decorated in the Adams style and an exquisite effect is obtained in the Wedgwood plaques which form part of the electric light fittings. It would be difficult to excel the dainty simplicity of this room, or that of the adjoining writing room, which is treated throughout in the Empire style.

Perhaps the most interesting and novel apartment is the Elizabethan smoking room, which is carried out in solid oak in the roughly finished style of the sixteenth century. It consists of two floors connected by a splendid staircase, at the head of which is a decorative painting representing a scene in the Arctic regions, which is noticeable in the accompanying engraving. Around the upper floor is a lovely carved frieze in light wood, illustrative of incidents of the life of St. Hubert, patron saint of hunters.

As the "Amerika" is not a high-speed vessel the engine room does not possess the spectacular features that mark some of the high-powered boats. Her twin

to live, in spite of the poisonous matter which they contain. It is possible that the plant is protected by localizing the poison in some of the tissues or in determined cells, which are thus sacrificed, and that thick walls serve to isolate the dangerous regions from the other parts, but on the other hand it is certain that proto-vegetable matter can exist in contact with the poisons of some bodies without being destroyed. M. Stracke makes some researches which are interesting, even though incomplete. He determines the resistance of a vegetable tissue to solutions of different poisons, according to the degree of plasmolysis and sometimes by a change of color which follows the death of the green tissue. In this way he observes the action of the oxalic acid on a leaf or rather on the outer scales of the leaf, using the *Begonia manicata* which contains a large quantity of oxalic acid, combined or free. The leaf of this plant has a great resistance to solutions of this and other acids in different degrees of concentration. This resistance is greater than other plants show. But while the red scales of the leaf seem to be immunized, some other parts have no more resistance to the poison than other plants. Thus we find a difference in this respect between different tissues. Some cellular juices are even toxic for the neighboring tissues of a plant. We may affirm that there is a relative immunization in the case of the higher vegetables, but the extent to which this occurs does not seem to be definite.