CLOSE OF THE ATLANTA EXPOSITION.

At the extreme left, in our illustration, is shown the New York State building, to the right of which is the Fine Arts building, with a frontage of 245 feet, and exterior of classical design. Still further to the right is the 150 foot high tower, with its chime of large bells, which has formed a notable feature, while at the extreme right of the picture, partially hidden by the foliage, is the United States Government building.

During the fourteen weeks of its continuance, the great Cotton States and International Exposition, which closes officially on December 31, has afforded a luminous record of the versatile industrial and educational advancement of the South during the past quarter of a century, and constitutes a fitting memorial of the energy, enterprise and liberality which now dominate throughout the entire cotton belt, no less than in other sections of the country.

That it has, in its wide scope, attracted such large numbers of exhibitors in all departments of art and manufacture, and such crowds of visitors from all sections of the country, are but evidences of the general recognition of the great importance of that new and vigorous industrial life which has but recently brought portions of the South into competition with New England and Pennsylvania. The work of the Exposition, in part educational and in part to promote commercial intercourse and enlarged exchanges of commodities, has been well done. It was conceived on a broad and generous plan, in which expense was not spared, and the experiences of previous expositions were wisely utilized. The Exposition park comprised a tract of 189 acres, the ground being most picturesquely located within two miles of the center of the city of Atlanta.

During the continuance of the fair the various railroads centering in Atlanta, well representing the entire railway systems of the country, made great reductions in their rates, with the result that the attendance was liberal from remote as well as from near-by points. This was particularly the case on the days especially devoted to different cities, representative delegations from Chicago, Philadelphia, New York, Brooklyn, Boston and many other cities making the days set apart for such local commemoration memorable as among the most interesting and exciting in the history of the fair.

THE ATLANTA EXPOSITION—VIEW LOOKING NORTH FROM THE PLAZA.

Increase of Naval Engineering Efficiency.

Senator Watson C. Squire has introduced a bill (S. 735) to reorganize and increase the efficiency of the personnel of the navy, to increase the usefulness and numbers of the corps of naval engineers, to induce the scientific institutions to provide a naval engineering reserve for time of war, to establish a naval engineering experimental station and to encourage the study of the mechanic arts and sciences, and particularly that of naval engineering, in the technological colleges of the country.

In the course of his remarks he said:

"I recently visited the flagship Philadelphia, and had great satisfaction in examining that splendid cruiser. Going through the vessel below the water line, I observed the vast amount of machinery, the complicated elements that enter into its construction, making the care of a modern vessel of war very important as regards the feature of steam engineering. One passes through compartment after compartment, and is almost lost in bewilderment in the mazes of the complicated machinery around him. It occurred to me that not enough attention has been paid to the personnel of the navy as respects steam engineering. Truly the propelling power is the soul of the ship. Without it the ship cannot be handled and is totally useless. This power is under the supervision of the engineer officers. Therefore it is needful to have a high order of personnel, a larger number of officers, and those of great attainments and proficiency.

"We are building in this country vessels that were unknown to former times, and we need adepts in the art of engineering and marine architecture. There is no way to obtain a suitable class of men except by preparing them in the various educational schools. Ships can be built, but men cannot be built. When war comes, if it should come, unhappily, we will need proper men to handle these great engines of war. The only way to have such men is to educate them in advance. I believe the provisions of the law of 1879 should be carried out, and that the schools and colleges of the land which apply for professors of steam engineering and naval architecture should be accommodated by the detail of officers for such purpose. But that is only one of the features which contribute to the practical merit of this measure.

"It is evident, too, that there is great danger of the breaking down of those officers. They are employed in very difficult work. To take care of all this valuable property requires a high degree of skill, and causes an immense strain upon the officers. It is well known that our battle ships cost about $4,000,000 apiece, and they are liable to have something out of order all the time. In fact, one of the officers of this corps told me that there is usually something out of order on a war vessel all the time requiring the attention of an expert. Oftentimes those officers have to submit to very severe physical strains. They have to go down and work in the hold of the ship, where the temperature ranges from 150 degrees to 170 degrees Fahrenheit, and this causes great physical exhaustion. I believe that the number of engineer officers should be increased so as to make provision for these breakdowns, and to enable a sufficient number of officers to be employed on vessels to allow for necessary changes in the supervisory watch. This branch of the service of the navy should be encouraged and dignified and rendered more attractive and popular to the cadets and those naturally fitted to become engineers, and for this and other reasons, that the officers should be given positive rank and title, so that a mere officer of the deck, perhaps an ensign, cannot control a commodore in the Bureau of Engineering, unless such officer shall be in command of the ship. I think, too, that the manner of selecting cadets and filling vacancies in the Engineer Corps should be changed so that Senators shall have the appointment of such cadets. Something must be done or the personnel of the engineering force in the navy will fall far below the proper standard. In fact, it may be considered relatively below it to-day, as shown by th report of the naval committee in 1892.

"We have in commission in the navy at this time forty-two vessels, with nineteen more vessels building, making in all sixty-one. It is useless to undertake to manage this vast interest without having competent men, thoroughly educated and prepared, and a sufficient number of them to provide for the necessary changes."

AN inch of rain falling upon an area of one square mile is equivalent to nearly 17,500,000 gallons, weighing 145,250,000 pounds, or 64,844 tons.