

A MIGHTY TRUST.

The One Committed by New-York to Its New Mayor.

When George B. McClellan becomes Mayor of this city next Friday, Tammany Hall will have more than \$200,000,000 to spend in the following year. The tremendousness of this amount is seen by a few comparisons. It is about one-third of all the gold money in circulation in the country, and \$50,000,000 more than all the silver currency. It is a little more than one-half of all the national bank notes outstanding, and one-fourth the value of all the agricultural products exported annually. It is equal to the combined revenues of Japan and China, or of Spain and Sweden.

The \$200,000,000 in the purse of Father Knickerbocker, with which Mayor McClellan and his Tammany associates are to be intrusted, includes \$106,674,955 which has already been appropriated for the expenses of the various municipal departments during the ensuing year and \$100,000,000 more which the city may spend on public improvements. There is the subway, for example, for which there is still an unexpended balance of \$9,000,000, and the tunnel under the East River, for which \$3,000,000 has been set aside and only a small part spent. With the completion of the Williamsburg Bridge at a cost of \$15,000,000, the sum of \$5,000,000 is to be spent in addition for the purpose of laying out an adequate approach in Manhattan and in widening Delancey-st. The Manhattan Bridge, between the Williamsburg and the Brooklyn bridges, whose tower foundations are almost completed, will cost \$20,000,000, and the Blackwell's Island Bridge will cost some \$10,000,000 more. Other projected public improvements and their estimated costs are as follows:

Table listing various public improvements and their estimated costs, such as New wharves (\$10,000,000), Municipal Staten Island ferry line (\$3,000,000), etc.

For the purpose of meeting these expenses the issue of bonds has been authorized to the extent of \$75,186,273, and the budget makes a further provision for \$25,265,498, to be issued at various times next year. The estimated cost of carrying out plans to which the city is committed, to say nothing of expenditures which Tammany may think of, is estimated at \$73,750,000.

The budget for the year 1904, which was authorized by the present administration, is an increase of \$9,500,000 over the budget for the preceding year. Of the \$106,000,000 appropriated, the Mayor controls \$60,000,000 more or less directly, according to the way he appoints the heads of his departments. For example, the man whom he appoints Police Commissioner will have charge of a department which will cost the city \$12,000,000. In a much less degree Mayor McClellan can make his power felt in the Board of Education, which is authorized to spend \$1,000,000 of the city's money. The entire board of forty-six members was appointed by Mayor Low, according to the revised charter, and Mr. McClellan will not have a chance to affect its constituency, except to fill vacancies, until next December, when he is empowered to appoint nine new members. In the following December he may appoint nine more. In the appointment of the trustees of Bellevue and its allied hospitals, the Board of Elections, the trustees of the City College, the Board of Plumbers, the justices of the courts of Special Sessions and the City Magistrates, Mayor McClellan will only be able to fill vacancies now and then, at the expiration of terms of office. In all the other ramifications of the city government, however, he appoints new heads of departments to take office on New Year's Day.

The offices, therefore, which come under the Mayor's jurisdiction to a greater or less degree and the sums of money which have been appropriated for their departments in the budget for 1904 are as follows:

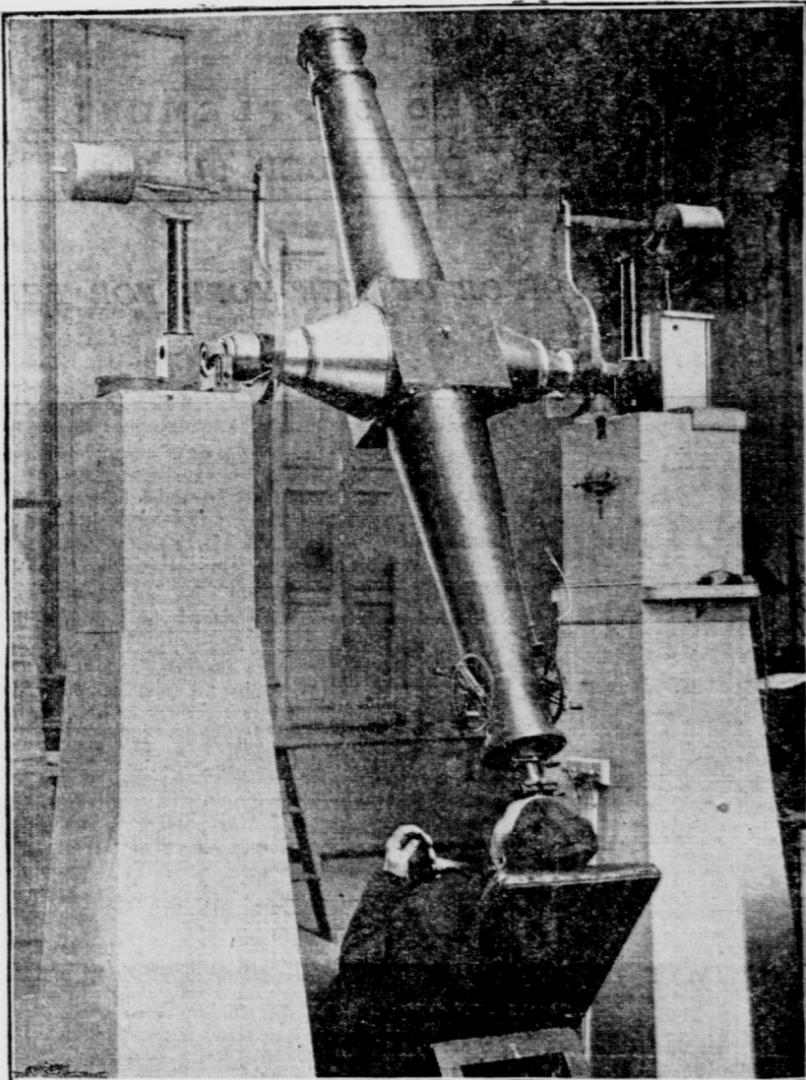
Table listing various city departments and their budgets, such as Mayor (\$63,500 00), Chamberlain (\$0,350 00), Corporation Counsel (\$60,500 00), etc.

FEMINE CRITICISM.

Camille Saint-Saëns, the eminent French composer, is as interested in current criticism and in the work of his contemporaries as he is in his own music.

He was talking recently with a young woman who had just been to the first recital of a young pianist whose talents had had much preliminary advertising. The young woman spoke enthusiastically of the pianist's good looks, his clothes, his way of sitting at the piano, his charming manner of acknowledging applause. Saint-Saëns listened patiently until she stopped a moment for breath.

"Um," he commented, thoughtfully; "and did you notice anything about his playing?"—(Harper's Weekly).



MAKING TRANSIT OBSERVATIONS.

The observer has in his right hand the electric key for registering the exact instant of transit.

NEW YEAR GREETING AROUND THE WORLD.

Elaborate Methods Followed at United States Naval Observatory at Washington to Determine the Exact Time.

Washington, Dec. 24.—The United States Naval Observatory will flash a New Year's greeting to every civilized nation on the globe. Just as the year 1903 gasps its last breath at Washington in the presence of distinguished scientists and leading government officials, the telegraphic signal announcing the arrival of the first of the three million and odd seconds which will make up the year 1904 will speed across continents and under oceans, to be followed by a message of good will from the capital of the United States literally to the ends of the earth. Puck's time limit of forty minutes will be put far in the shade by Columbia, who expects to "put a girdle round about the earth" in much less than forty seconds. The sending out of this New Year's signal will require the co-operation of the cable and telegraph systems of both hemispheres, so that its successful transmission will be a triumph in which the whole world will have more or less a share. Last year, when a similar message was sent to all points of the

United States, after the manner of distributing the daily standard noon signal, the receipt of the message was accurately timed at the Lick Observatory in California, and was found to have taken only six one-hundredths of a second in its leap across the continent.

The observatory has just marked the twentieth anniversary of the adoption of standard time in the United States. Up to that date every little town and village in the country measured its own time, and it was due to the efforts of William F. Allen, secretary of the American Railway Association, with offices in New-York, that the old system was done away with and a standard time used. On November 18, 1883, the naval observatory sent out its first standard time. Before that it had sent out daily, at noon, Washington mean time. The standard time was adopted primarily in the interest of the railroads.

Admiral Chester, superintendent of the naval observatory, has been investigating the laws

relating to standard time, with a view to having it adopted legally, as it has been practically, all over the country. Standard time is legal in the District of Columbia and in a few of the States.

"The adoption of standard time," said Lieutenant Commander E. E. Hayden, U. S. N., in charge of the division of chronometers and time service, "has tended enormously to increase the accuracy of time all over the country. Not even the best watches and clocks will keep exact time, but must be referred daily to some standard regulated by the sun or stars. Another great advantage of the present system is that there is a recognized authority everywhere for the accuracy of the time."

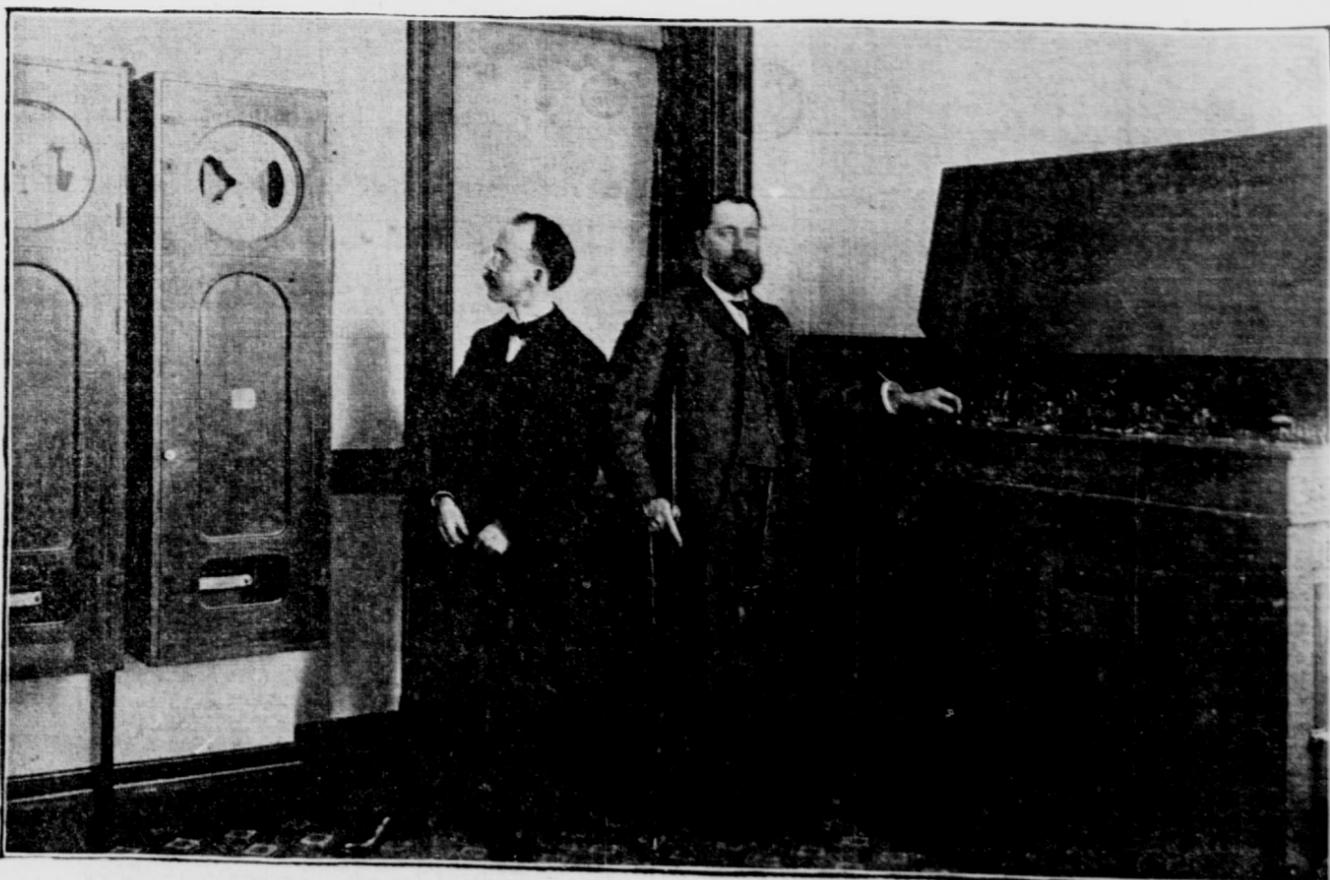
This system requires master minds and intricate machinery, but to the big, unthinking world, that takes its blessings as a matter of course, the scientists of the naval observatory who regulate Columbia's clocks and watches have nothing more complicated to do than to drop time balls and blow whistles every day on the exact stroke of noon. A trip to the observatory is well worth the trouble it takes to get there.

A beginning can be made with the chronometer room, a small, airy place that gets its name from the dozens of chronometers in glass cases around the walls, which are being tested and regulated for the use of government vessels. These timepieces are bought by the observatory, and as they are expensive—ten in one group being valued at \$3,000—a six months' test in varied temperatures is always made before purchase. In an adjoining room, where the air feels like Florida on the Fourth of July, these timepieces are regulated so as to give correct time when subjected to tropical temperatures. The regulation of these naval timepieces for government warships is the most important work of the observatory, as the error of a minute a week for six months would throw a vessel a thousand miles out of her course.

The main interest of the chronometer room to the visitor, however, centres upon the great astronomical clocks and the curious chronograph, with its cylinder of white paper, on which red lines—spiral and zigzag—are drawn ceaselessly by an electrically controlled pen. The big sidereal clock has a wall to itself, and opposite are transmitting clocks as like as peas. Only one of these heavenly twins is needed to send out the time, the other serving as an understudy ready to carry on the performance in case the first star clock fails.

In explaining the relation between the standard and transmitting clocks an official said: "By applying the correction to the standard clock we find what the transmitting clock should read at noon. By accelerating or retarding the pendulum of the transmitting clock it is made to read the exact time at which the signals should go out." The standard clock is consulted every day before noon. Should it be one minute fast, for instance, the transmitting clock is regulated one minute behind it, thus making the transmitting clock exactly right.

The interval between two successive transits of the sun is a solar day. These days are unequal in length, because the motion of the earth about the sun gives the latter an apparent motion among the stars which varies. This irregularity makes it necessary to use a fictitious sun which moves on the equator with a uniform rate equal to the average rate of the true sun in the ecliptic. The time measured by this sun is uniform in its increase, and is called mean time. The standard clock at the observatory is regulated to keep this time. To determine mean



SENDING OUT THE NOONDAY SIGNAL.

Commander Hayden (with crutch) in the famous time room of the Naval Observatory, at Washington, with the transmitting clocks.