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THE NATIONAL ELECTRICAL EXPOSITION.

The managers of the National Electrical Exposition, of which we give a detailed notice on another page, have every reason to be gratified at the success which marked the formal opening at the Grand Central Palace, New York, on Monday, May 4. It speaks well for the future extended use of electrical appliances among the people at large, and for the increasing popular interest in matters of purely scientific and technical interest, that for half an hour previous to the opening hour the street was filled with an expectant crowd, and that the interior of the spacious hall was closely packed with an enthusiastic audience.

After a careful inspection of the exhibit it is difficult to realize that all this practical development of the electrical art has been the work of a single generation; yet if we turn from the modern to the historical section, it is at once evident that the date of the birth of the practical age of electricity falls easily within the last twenty to thirty years. While it is true that some of the simplest properties of electricity were dimly perceived by the ancients, and its history dated from the remote past, it was not until the seventies of the present century that electric light and power demonstrated to the public satisfaction their practical commercial value.

RAPID TRANSIT IN NEW YORK CITY.

In a recent issue we drew attention to the fact that the rapidly increasing traffic on the New York surface and elevated roads demanded a more immediate relief than could possibly be afforded by the proposed Broadway tunnel, and suggested that the speediest way out of the difficulty would be to extend the existing elevated roads and enlarge their capacity.

We are glad to notice, however, that Mr. Gould and Mr. Sage, in an interview with Mayor Strong, on May 4, submitted a proposition for an extension of the elevated roads and a considerable increase in their present capacity. The proposed new lines consist of an extension of the Ninth and Sixth Avenue lines from the present uptown terminus to the west side city limits.

The proposed west side extension will, of course, be very welcome to the residents who will be served by it, and it will do much to build up the district through which it passes. A proposal, however, which is of greater importance, and will benefit a far larger portion of the traveling public, is that to lay a third track on all the existing lines upon which there are but two tracks at present, and upon all the extensions, and to run express trains over the whole system.

Even if the proposal of the elevated roads be immediately carried out, it is likely that there will be a strong demand for the tunnel line by the time, or soon after, it is completed. In the lower part of the city it will serve a district which lies midway between the Third and Sixth Avenue lines, and it will help to accommodate a traffic which has already overtaken the capacity of the existing surface roads.

The pressing need, however, is a scheme which will give speedy relief, and the proposal now before Mayor Strong is the only one in sight which promises to do this.

THE PATENT COMMISSIONER'S REPORT FOR 1895.

The Patent Commissioner's Annual Report is a document which has a special interest in a country like our own, which owes its wealth and power so largely to the genius and patience of the inventor and to the recognition and protection which are afforded him by our admirable system of patent laws.

The report for 1895 shows that there were 39,145 applications for patents in 1895, and 21,998 granted. There was a surplus of receipts over expenditures of \$160,750,

bringing the total balance to the credit of the Patent Office in the United States Treasury up to \$4,529,886. In every year since 1861 there has been a surplus over all expenditures.

In proportion to population, more patents were issued to citizens of Connecticut than to those of any other State—one to every 927 inhabitants. Then follow the District of Columbia, with one to every 1,047; Massachusetts, one to 1,248; Rhode Island, one to 1,528; New York, one to 1,694; Colorado has one to every 1,917. The fewest patents in proportion to population were granted in the South, where Mississippi has one to every 34,854 inhabitants; North Carolina, one to every 24,891; and Georgia, one to every 16,117. Of the patents issued, 2,049 were granted to citizens of foreign countries, and of these, 614 were to residents of England, being a larger number than to residents of any other foreign country.

As the result of an effort made through the various diplomatic representatives of the United States residing abroad, the library now possesses a record of 981,961 patents issued by foreign countries. A comparison with the United States shows that, prior to 1870, the total number of patents granted by the United States was 108,416 and by foreign countries 222,615. The total number granted up to date is for the United States, 562,458, and for foreign countries, 981,961, making a grand total for the world, from the earliest records up to 1895, of 1,544,419.

The following is an alphabetical list of twenty-five inventors to each of whom the Patent Office has granted more than 100 patents, the whole number granted to these inventors being 4,894: Edward J. Brooks, 116; George D. Burton, 128; Luther C. Crowell, 147; Peter C. Dederick, 107; Thomas A. Edison, 711; Rudolf Eickemeyer, 158; Louis Goddu, 131; Rudolph M. Hunter, 228; John W. Hyatt, 198; Hiram S. Maxim, 131; Arthur J. Moxham, 144; Lewis Hallock Nash, 119; Edwin Norton, 125; Feeborn F. Raymond, 2d, 144; George H. Reynolds, 101; Francis H. Richards, 343; Cyrus W. Saladee, 148; Walter Scott, 109; Charles E. Scribner, 248; Sydney H. Short, 111; Elihu Thomson, 394; Charles J. Van Depoele, 244; George Westinghouse, Jr., 217; Edward Weston, 274; William N. Whiteley, 118.

In the whole of the report there is no question of more vital importance to the inventor than that of the enactment of rules and regulations concerning the admission to a solicitors' bar of those entitled to practice before the Patent Office.

The commissioner strongly recommends that such a bar be established. As the matter now stands, there is practically no guarantee required either of the character or capacity of a practitioner. "Any one who has not been proved before the Patent Office to have retained the money of his client, or to have been guilty of other gross misconduct, is permitted to practice before the office," and it is a fact that there are to be found unscrupulous and unqualified men who do not hesitate to go before the office having in charge cases for the conduct of which they are utterly unqualified. The report states that, "it not infrequently happens that a practitioner . . . instead of bestowing the requisite labor and care" upon a meritorious invention, most of the claims for which have been poorly drawn up, and have been rejected by the office, "promptly directs the cancellation of all claims objected to, and thus puts the application into condition for allowance with an inadequate claim." Appeals are also taken upon a case "for no assignable reason other than to secure from some unlettered client the appeal fee."

Another class is spoken of as "lying in wait" for those who come to present their inventions in person. They are to be found around the Patent Office elevator, "and they have no other place of business than the attorneys' room in the Patent Office." It is high time, both in the interests of the reputable attorney and his client, that such a patent bar as the commissioner suggests was established; and this strong denunciation of so-called patent attorneys and bogus firms, whose sole object is plunder, is very timely. They not only rob the "unlettered client," but they cast a shadow upon the reputable practitioner, and bring discredit upon the Patent Office itself—and this just at the very time when the hands of that institution need to be strengthened.

The report makes favorable reference to the bill prepared by the patent committee of the American Bar Association, and now before the House of Representatives, which we discussed editorially in our issue of April 18.

The attention of Congress is called to the pressing need of the Patent Office for enlarged accommodation. It seems that a large part of the building, which was originally intended for the exclusive use of the Patent Office, has been appropriated to the use of other governmental departments. The result is that "the force of the Patent Office is scattered in remote parts of the building; its valuable records are disposed upon all the floors and are at all times exposed to the danger of conflagrations and other loss;" and there are other disabilities which render the passage of Senate bill 429, for the construction of a building for the use of the Patent Office, an imperative necessity. Failing this,