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EXTENSION OF OUR SOUTH AMERICAN TRADE.

Judging from the geographical standpoint, it must be admitted that the trade of the South American states belongs to the United States and should be controlled by them. As a matter of fact, however, the export and import trade is chiefly in the hands of German, English, and French houses, which supply most of the manufactured products called for in these countries. It must not be supposed that the relative scarcity of American trade is due to any superiority in the goods manufactured in European countries. The paucity of our trade is explained by the fact that we have comparatively very little commercial representation in these states. It is the practice of other countries to maintain exhibition centers, where their goods are always on view, and these are superintended by expert salesmen who are thoroughly in touch with the wants of the community and keep their wholesale houses continually informed of its needs.

We have already drawn attention to the efforts of the National Association of Manufacturers of the United States to establish at Caracas, Venezuela, a depot for the exhibition of sample American goods, and we are glad to learn that the enterprise is now being established on a firm basis.

The government of Venezuela has given material assistance by rescinding the duty on goods which are brought for purely exhibition purposes, though, should the goods be subsequently sold, the duty would, of course, be collected. One of the leading steamship lines has also agreed to reduce the rates one-half on all goods that may be shipped for exhibition. The charges for exhibition space will be such as are necessary to cover the current expenses, exhibitors being charged from two to five dollars per square foot per year. Great care will be exercised in the selection of salesmen, and the management will favor the employment of men who are thoroughly conversant with the country, its people and its needs. We very heartily commend this enterprise to the attention of American manufacturers. It is certainly the most practical way to attack the problem of opening the doorway for our surplus product into this hitherto much neglected field.

THE PROPOSED RAPID TRANSIT TUNNEL, NEW YORK CITY.

The commission of three appointed by the Appellate Division of the Supreme Court to report upon the tunnel railroad proposed by the Rapid Transit Railroad Commission of New York City is now engaged in taking testimony from the commissioners, the chief engineer, and the property holders along the route of the road. The data furnished by the engineer places the prospects for building the road in a better light than they have presented at any time since the original scheme was first mooted. The present amended plans were illustrated and described in the issue of the SCIENTIFIC AMERICAN SUPPLEMENT for November 21, 1896, at the time when they were first drawn up. In the interval more extensive surveys have been made, and the latest estimates show that the probable cost of the road will be even less than that originally estimated for the amended scheme.

According to the present plan, a trifle over twenty miles of road will be built. This will reach from the Post Office to the Kingsbridge Station on the west side, and to Bronx Park and the Boston Road on the east side. Although this is about two miles longer than the route first proposed, known as the Broadway route, it involves two miles less of four-track tunnel. The estimated cost of the route which was vetoed by the Appellate justices was about \$50,000,000, whereas the estimated cost of the present proposed route beneath Elm Street will not be over \$32,600,000. This total, however, will be considerably reduced if the commissioners persist in their decision not to put up any pipe galleries at their own expense, and to replace the proposed enameled-brick tunnel lining with painted cement concrete—a change which will probably be made. This would effect a saving of about two and a half million dollars, and would reduce the cost of the completed tunnel to something under \$30,000,000. The preliminary borings which have been made through Center Street, Elm Street, Fourth Avenue and the district beyond, indicate that the work of excavation will be easier than was at first anticipated.

The fact that this great and much needed public work can be built for such a reasonable sum (nearly one-half less than the probable cost of the Broadway scheme) will remove a considerable part of the opposition which the scheme originally aroused. Next to this the greatest difficulty to be overcome is the prejudice which will naturally exist against any underground system of transit. Regarding this, it must be admitted that the question is one of a choice between two difficulties. The public must either be content to submit to the overcrowding and general inconvenience of the present overloaded facilities or it must take the tunnel with its comparative darkness and other imaginary discomforts. Judging from the success of underground transit as carried out on modern lines, it is almost certain that the enlarged accommodation and

the high speed which would be realized in the new tunnel would very quickly reconcile the New York citizen to the fancied inconveniences of this mode of travel.

DECEPTIVE METHODS OF PATENT ATTORNEYS.

The general discredit which the practice of certain patent attorneys has cast upon the Patent Office and the profession, by reason of their peculiar crooked methods and deceptive advertisements, is greatly to be deplored, since it is likely to create in the minds of many well meaning inventors a lack of confidence in all attorneys, however honorable a reputation they have borne in the past. The activity, however, of the present Commissioner of Patents, the Hon. Benjamin Butterworth, in taking measures to raise the standard and morale of the office, and by examining into the methods of John Wedderburn & Company, charged with pursuing fraudulent methods in patent practice, is greatly to be commended and will doubtless receive the approval of all inventors.

We believe there has never been before the Patent Office a case of such magnitude as that now pending before the Commissioner, in which is disclosed by the evidence, a surprising system of misrepresentation and equivocation designed for the deception of inventors.

According to the evidence as brought out at the examination by Assistant Commissioner Greeley, who has been assigned by the Commissioner to conduct this investigation, it appears in a large percentage of cases it was the custom of the firm in question to render favorable reports and send misleading letters to inventors of clearly unpatentable inventions. When the inventor responded and the application was lodged in the Patent Office, he was usually rewarded with a silver medal. Upon the absolute refusal by the Patent Office of a patent the inventor was advised that serious objections were raised against the granting of a patent, which might be overcome if an appeal was taken to the Board of Examiners in Chief, and further fees were asked for. If the amount was forthcoming, in numerous cases very little or no effort was made by argument, and usually the decision of the examiner below was affirmed, of which the inventor was seldom notified, but on the contrary was apprised of the probable remarkable value of the invention, estimated at various sums from \$5,000 to \$20,000, and was urged to secure foreign patents. He was further requested to remit another sum for the purpose of advertising the invention and having a sketch of himself written and published.

Thus by an extensive system of flattery and misleading correspondence, combined with medals or prizes, the inventor was led into the belief that his unpatentable invention was patentable and likely to bring to him a fortune.

Whatever may be the outcome of the proceedings instituted by the Commissioner of Patents, one excellent result is already manifest in the fact that fraudulent and crooked methods of securing patents have been in a measure checked, and the aspersions cast upon reputable attorneys nullified. There should be brought about soon a wholesome restoration of confidence between inventors, attorneys and the administration of the Patent Office, which should be of lasting benefit to all.

PROSPERITY.

The prolonged period of business depression, which may be said in a general way to have lasted since 1892, appears at last to have come to an end, and from almost every quarter and in nearly all lines of business we hear most encouraging reports. We think there will be general unanimity in finding the principal factors of the depression of the past four years in three main causes—the difficulty in repealing the silver purchase act, and the consequent doubts as to the stability of the currency, and the two successive tariff acts, with the disturbance they have caused to trade and manufacture. Whatever may be the merits or demerits of the tariff just enacted, it is a great thing for business that the subject is now out of the way, probably for three or four years, at the least, and it is extremely fortuitous that, just as this most vexatious matter ceases to cast its shadow over the business world, we are come upon a period of good crops and advancing prices for the farmer. The grain crops of the rest of the world are below their usual average, while our wheat crop is considerably above the average, and, with a surplus of corn from last year, we shall have large supplies to market at figures which have been steadily advancing for the past three months, and do not yet appear to have reached their limit. So, too, it is predicted that this year's cotton crop will be the largest one ever raised. The trunk line railways are all making preparations to handle a very heavy business, which will test the capabilities of their entire rolling stock.

The improvement in trade and manufacture, stimulated and supported as it necessarily is by the excellent crops, which must always afford the backbone of a healthy prosperity, is also largely due to the increasing confidence of business men and capitalists that nothing