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NEW YORK, SATURDAY, APRIL 7, 1900.

OBSTACLES TO THE PROPOSED ERIE CANAL IMPROVEMENT.

The recent course of events at Albany suggests that the proposed scheme for enlarging and improving the Erie Canal will have to travel a rough road before it arrives at the point of actual construction. The indications are that this greatly needed work will have to lie in abeyance for at least another year. That strong opposition should have been developed against the canal was not unexpected. It is well known that there is a number of apparently unrelated interests that would be, or at least think they would be, adversely affected by the enlargement of the existing canal to accommodate boats of a thousand tons or over.

Leaving out of consideration the railroads which, in the nature of things, cannot be expected to look with much favor upon a rival system of transportation whose successful operation would divert an enormous yearly tonnage from their systems, there are other hostile elements, whose opposing influence, tending in one direction, may well prove fatal to the canal. There is first to be considered the farming population of the interior of New York State, who long ago found that wheat growing was unprofitable, mainly because of the cheap rates at which the product could be brought from the great wheat fields of the West, and, who therefore, failed to see how any further cheapening of transportation could better their condition. In many cases they have come to look upon the canal as a toll-road which exists for the benefit of two great terminal toll-gates, New York and Buffalo; and they seem to have lost sight entirely of the fact that of late years the receipts from local traffic on the canal have exceeded those from the through freight.

Another adverse influence, indirect, but undoubtedly powerful, is to be found in the proposal to build a full-sized ship canal from the lakes to the ocean, a scheme that finds its strongest supporters in the wheat producing communities of the West, who see in the creation of a ship canal and the possibility of wheat's being shipped from lake ports direct to its destination in Europe, the prospect of an immediate lowering of freight charges and a consequent increase in the producers' profits.

There are indications of opposition, also, from the vested interests of the transportation companies of the Great Lakes, whose operations under existing conditions are known to be extremely profitable. The opening of waterways, such as the proposed Erie Canal, and the recently opened Canadian Canal, with depths of water of 12 and 14 feet, will, it is feared, disturb the existing condition of things in more ways than one. In the first place, it is certain that it will develop a new type of vessel capable of carrying wheat without intermediate handling direct from Duluth to New York, and again it is feared that the canals will open up the lake carrying trade to the competition of a vast fleet of deep sea steamers of the smaller class. That the existing conditions will be somewhat modified by the canals is not to be disputed, but the fear that they will be prejudicial to the present transportation companies on the lakes is unfounded, for experience has shown that any modifications in methods of transportation which reduce the amount of handling and increase the facilities for the moving of freight invariably benefit the transportation companies themselves as much as they do the general public.

We are of the opinion that most of these objections are based upon a too local view of the economic effects of the canal. The prosperity of the interior of the State is closely related to the prosperity of New York as its great shipping point for the Old World, and the diversion of trade from New York to other ports which has been taking place of late years, unless it be checked, cannot fail very materially to affect the prosperity of interior towns and districts along the route of the canal. As to the shipping interests of the lakes it has yet to be shown in what particular they will be injuriously affected; and as we have said, the increase of traffic resulting from improved facilities must ultimately more than offset any temporary derangement of an existing and profitable business. As to the deep water ship canal, the report of the government engineers indicates that the interest on the first cost of construction would more than outweigh any possible subsequent benefit to be derived. Furthermore, the conditions of navigation in the comparative calm of the lakes and amid the heavy storms of the Atlantic are so different as to call for an entirely different class of vessel; a ship built for the Atlantic being of a type of construction too strong and unnecessarily costly for the lakes, while the comparatively cheap and lighter-built lake-vessel is unfitted, if not positively unsafe, as the experience of the "Whalebacks" has shown, for deep water navigation.

AUTOMOBILISM IN THE GERMAN POSTAL SERVICE.

The results obtained in the trial of automobiles for the government postal service in Germany do not seem to be as satisfactory as prevailing reports would have led us to expect. At the same time it is to be borne in mind that the conditions imposed for the service were somewhat severe, and that only two types of automobile were given a trial. Furthermore, the failures seem to have occurred chiefly during the snowstorms of the winter, when the efficiency of any type of vehicle, whether horse-drawn or otherwise, is greatly reduced.

The government has decided that the results obtained with the postal cars driven by hydrocarbon motors indicate that the type is not satisfactory for such service, and that considerable improvements will have to be made in the motors before they reach the absolute reliability demanded by the postal authorities. The two electromobiles which were used seemed to have given better results, although they broke down more or less during the snowstorms, the trouble being the same as that which was experienced last winter on the underground trolley roads of this city. The electromobiles had sufficient power but insufficient adhesion. The larger of the two was therefore provided with heavier rubber tires, while the smaller had its iron tires roughened, both changes being made with a view to improve the adhesion. These results do not agree with those obtained in this city, where the electric cabs, under similar conditions, continued to run long after the other means of transportation of the city had been paralyzed.

The Postal authorities also raised the objection that the accumulators are extremely heavy in proportion to the power given out, and they suggest that builders should provide a suitable device to prevent malicious starting of the motors when the driver is not in attendance.

In view of the fact that steam-driven automobiles for heavy work have proved so successful in England and that steam-driven automobiles of a lighter type have given excellent results in this country, it is surprising that the German postal authorities should not have included a steam automobile in these trials. They are light for their power, have excellent hill-climbing ability, and when properly designed and constructed seem to be thoroughly reliable. This adverse report will necessarily be disappointing to the friends of automobilism, but we think that for the reasons given it is not entitled to the weight which a Government report of this kind should naturally carry.

THE WORK OF THE DIVISION OF ENTOMOLOGY.

The work of the Division of Entomology of the Department of Agriculture has been most gratifying during the last fiscal year. As in former years the work of the division may be classified under investigations upon specific injurious insects or groups of insects, experimental work with regard to the determination of specimens sent in, the general investigation of life histories of the injurious insects, work on the geographical distribution of injurious insects of the United States, bibliographic work, investigations in apiculture, preparation of circulars, correspondence, etc., and in addition, this year, work has been carried on upon the exhibit of insects for the Paris Exposition.

The investigations on the insects from abroad is most important. In 1894, a skilled entomologist was sent to Mexico to study the injurious insects liable to be introduced from that country into the United States; this investigation has been carried on continuously until the present time. The results which have been obtained bid fair to become of great importance to certain sections of the United States. The introduction and apparent establishment of the insect which in Mediterranean countries fertilizes the Smyrna fig has heretofore been mentioned. In 1899, an assistant was sent to Porto Rico to collect and study the injurious insects of that island. Large collections were made and a report of the trip will be published in one of the bulletins of the division. The importance of the investigations on foreign insects is shown by an instance which occurred in the spring of 1899, when an insect boring into the stems of orange trees received in California from Japan, was at once recognized by comparison with specimens received some time ago from that country, and the habits of which were reported at that time by a temporary agent of the division. It was at once determined to be a very dangerous species, and the trees having the insects were destroyed.

Work upon insects damaging forests in the Northwestern States have been carried on and the result of the investigations was that many species new to science were found, and which were undoubtedly engaged in destructive work in the timber of that region. Dr. A. D. Hopkins, the expert, made many observations upon which may be based practical suggestions which will prove of value to lumbermen. Investigations regarding scale insects have been carried on both by the officials of the department and by State officials. Investigations were also started in the autumn of 1899 on insects as carriers of disease, and the results of the investigation will soon be published. Work on garden and greenhouse insects, injurious grasshoppers, and insects affecting the tobacco crop have been carried on during the last fiscal year. Dr. L. O. Howard, the entomologist of the department, gives an outline in his report of the proposed work for the fiscal year of 1900, which includes investigations on the outbreaks of local species of grasshoppers, partial exploration of some of the suspected permanent breeding grounds of the Rocky Mountain locusts, or Western grasshopper, and to carry on the work concerning the establishment of the blastophaga in California to fertilize the figs. Dr. Howard also mentions the need of investigations in the West Indies and the Philippines, and also experimental investigations in apiculture.

CHANGES IN THE ASSISTANT COMMISSIONERSHIP.

By the resignation of Mr. Arthur P. Greeley, Assistant-Commissioner of Patents (who is to engage in private business), the Patent Office has lost one of its strongest men. His breadth of mind and fairness of spirit has done much to advance the interests of the inventors of this country. Born at Methuen, Mass., of old New England stock, he graduated from Dartmouth College in 1883. He was admitted to the bar of the District of Columbia in 1887.

Mr. Greeley's connection with the Patent Office began in 1884, when he was appointed assistant-examiner; in 1891 he became principal examiner, and in 1895 he became examiner-in-chief—strictly upon merit. Commissioner Butterworth requested Mr. Greeley to become Assistant-Commissioner of Patents, which he did on May 27, 1897.

One of the first matters which engaged Mr. Greeley's attention after his entrance upon his new duties as assistant-commissioner, was the restoration of the rules of practice in force prior to 1895, and they were restored on June 18, 1897.

At the time of Mr. Greeley's appointment, the proceedings in the notorious Wedderburn case had already been begun, and the conduct of the matter was very largely in his hands, and his report of his findings and recommendations in the case, which resulted in the Wedderburn disbarment, is generally recognized as of great importance.

During Commissioner Butterworth's long illness, Mr. Greeley had entire charge of the Patent Office, and administered its affairs to the general satisfaction of patent attorneys and their clients.

A matter of considerable importance which came before him during this period was the question of the registration of prints and labels. The registration of prints and labels had practically ceased since 1891, through the construction placed by the office upon a decision of the Supreme Court. Mr. Greeley believing that the construction placed on this decision was erroneous, and recognizing the importance to commercial interests of protection of the prints and labels, reopened the registration in decisions rendered in January, 1898. The fact that in 1898, 235, and in 1899, 611 prints and labels, many of them lithographs of unquestionable artistic merit, were registered, indicates the importance to the business interests of the country of Mr. Greeley's policy in this matter.

Mr. Greeley has, both in his work as Assistant Commissioner and in his work as a member of the commission to revise the patent and trademark laws, to which he was appointed by the President in 1898, taken great interest in trademarks and their protection in this country and abroad. In 1899, he published a volume on foreign patent and trademark laws, in which for the first time the systems of protection of trademarks in foreign countries are presented to the American public in comparison with the trademark law of this country.

Perhaps the most important cases which come before the Commissioner or Assistant Commissioner for decision are the interference cases. Mr. Greeley's decisions in these cases have seldom been appealed from, and in but one case out of eleven which have been decided by the Court of Appeals on appeal from his decision, has his decision been reversed.

We wish Mr. Greeley success in his new undertakings.

The new Assistant Commissioner of Patents is Mr. Walter H. Chamberlain, of Chicago, who was promptly nominated by President McKinley. The selection is an admirable one, as since his admission to the bar in 1890 he has made a specialty of patent law. He was