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**CONGRESSIONAL INTERFERENCE WITH PATENTS**

Arguments against the extension of the Goodyear india-rubber patents were made on the 21st ult., before the House Committee on Patents by Horace H. Day, and also by Abraham Payne and J. H. Parsons, of Rhode Island, Tappan Wentworth of Massachusetts, and E. S. Day of Connecticut, in behalf of the manufacturers, one of the counsel representing the Eastern railroad companies, and by George Griscom of Philadelphia, who represented the railroad companies, manufacturers, and dealers of Pennsylvania. Earnest remonstrances have been presented against the extension by the Governors and members of the Legislatures of Pennsylvania and New York, and nearly all the railroad companies of the United States, and by many citizens.

Much solicitude is manifested on this subject owing to the immense pecuniary and manufacturing interests involved, and it is generally believed that the Committee will make a report unfavorable to the petitioners. We sincerely trust that this may be so, but it will not do now to relax any possible opposition in the expectation that the report of the Committee will be an adverse one. The Committee need to feel that the people are opposed to the further extension of these patents, that they are unwilling to be taxed for another seven years to support a monopoly for the special benefit of a limited number of wealthy corporations, which will thrive even if no longer allowed to control the Goodyear patents for their own special benefit. If we admit that the heirs of Charles Goodyear are poor, we maintain that it is no fault of the people or of the patent law. The testimony before the Committee clearly shows that the late Mr. Goodyear received large sums of money from his various patents, and also that he was improvident of his means. He spent his substance like water, when he ought to have taken care of it for the benefit of his family. If Congress is prepared to establish the dangerous precedent that valuable patents are to be extended to relieve the heirs of a deceased inventor who failed to provide for his own household, when ample means were at his disposal, then we say that the public have no guarantee against the revival of the monopoly system which became so odious during the reign of Queen Elizabeth.

History and experience have proved that there must be a limit to the grant of Letters Patent. The progress of the world in the arts and sciences demands that there should be such limit; and to guard against the evils which had already resulted from the system of extending patents, Congress enacted a law which went into force March 2, 1861, to allow patents to be granted for a term of seventeen years—instead of fourteen—and beyond which there should

be no further extension. This change was not the effect of hasty legislation, but was the deliberate result of thorough experience. The public have a right to know how long an exclusive right to an invention is to exist, for unless this principle is fixed by statute there is little or no encouragement for other inventors to make improvements. A monopoly like the Goodyear patents, supported by millions of moneyed capital and controlling all the leading patent lawyers of the country in its service, can effectually put an embargo upon patents granted to others for india-rubber improvements, and such inventors and patentees must either sell their valuable rights for whatsoever these monopolists are pleased to give for them, or be crushed under the wheels of a legal and money juggernaut.

We repeat what we have before urged in our columns, that the system of extending patents by Congress is not only dangerous, but it is unjust. It is a species of special legislation which is antagonistic to the principles of our Government; and up to this time, with few exceptions, Congress has refused to act favorably on such applications. If Goodyear's patents are extended there is no reason why hundreds of other inventors should not receive the same favor. There is nothing in this case of the Goodyear heirs which cannot, with equal justice, apply to the others; indeed the Goodyear case has much less to recommend it to the favorable consideration of Congress than some cases that we could suggest. Grant that the Goodyear inventions are valuable; grant that he suffered the pinchings of poverty; grant, also, that his children are not made rich out of his inventions. On the other hand, it is true that he has had his patents for the longest term allowed by law; he knew just how long the laws would protect his rights; and had he regarded the advice of his friends, himself and family would have rolled in the wealth which this protection afforded him.

If the Committee consider that the heirs are poverty-stricken, let them remember that the Government, as well as the people, consumes very largely of india-rubber goods, and rather than to favor the extension of the patent for another seven years, let Congress make an appropriation of funds for the relief of the heirs out of the public treasury. We know it will not be palatable to the heirs, and it will be a nauseating dose for those who monopolize the rubber business; but as a matter of strict justice and economy, this would be a fairer and more judicious disposal of the case.

**CO-OPERATIVE SOCIETIES.**

The greed for gain is not confined to the provision dealers in this country alone. In England the working classes have banded together in what they call "Co-operative Societies," which have for their principal objects the sale of food and groceries in general at a reasonable advance upon first cost. The societies in question realized the sum of £165,770 as net profits on trade last year. This one fact is worth all the assertions of all the "grumbling" grocers of England put together. There are 332 of them, and they are patronized by 90,450 persons. They seem to have been peculiarly successful abroad; and there is no reason why they should not be equally so here.

In some of the eastern cities—New Bedford and others—this plan is, or was at one time, carried out under the title of "Union Stores;" and subscribers to the fund for the purchase of stock wherewith to carry on the business could buy their goods at a small advance on cost; and, if we mistake not, could receive a dividend annually from whatever profits accrued to the concern. It makes a very apparent difference in the housekeeping account of a family, whether butter costs 50 or 25 cents a pound; and so it is with other essentials of living. It was recently shown, by some careful compiler of statistics, in a daily journal, that the recent tremendous advance in the necessities of life was mainly the result of the rapacity of middle-men and retail dealers. If this be the fact then co-operative societies are plainly good things, and to be encouraged; more especially at the present time. The plan is very simple, and is merely to start a subscription paper at from ten to fifty dollars, as individuals may choose, for the purchase of stock, &c., and carrying on the business; and then to retail the goods to subscribers at the least advance

possible, in order to cover the interest on the investment, loss by wasteage, &c. To all other persons the prices would be the same as outside ones. To mechanics in small towns, and indeed in large manufacturing ones, even, such a plan as is here presented would seem to have positive advantages when placed under judicious management.

**DEATH OF GENERAL TOTTEN.**

Whether as field commanders the officers of the American army will compare favorably with those of other nations may be an open question, but there can be no question in regard to the Engineering Department. In both branches of their profession, in attack and in defense, in forts and in artillery, our military engineers have been for more than fifty years in advance of the military engineering of all other nations. By their long and persistent efforts our forts have been furnished with those enormous cannon which are the only weapons that can prevent the passage of ships past the front of fortifications; and their ingenuity devised that improvement in embrasures which, in the opinion of the best English officers, has reversed the relations of naval attack to military defense—has rendered forts invulnerable to the cannonade of fleets.

These triumphs of our military engineers have been in a large measure due to the genius and energy of the veteran head of the Department who, full of years and honors, has just been gathered to his fathers.

Joseph Gilbert Totten was born at New Haven, in the State of Connecticut, in the year 1788. He was educated at the national military school at West Point, and graduated in June, 1805, receiving at the time his first commission as second lieutenant of engineers. He served through the war of 1812, and through the Mexican war, steadily advancing in rank to that of general, and to the position of Chief Engineer of the United States Army.

In 1815, being called on to prepare a project for the defense of an important channel, he became convinced that the principles and the details by which the embrasures and casemates of forts had been to that time regulated were erroneous, and set about a careful study of the conditions to be fulfilled in providing for the heaviest guns of that period. The result was a design for an embrasure with the throat near the outer face of the wall, instead of placing the throat at the inner surface of the wall, as had been previously practiced. This improved form of embrasure was adopted, and is found in nearly all of our forts which were constructed previously to 1852.

At that time the gradual increase in the size of artillery had rendered necessary a greater thickness in the walls of forts, and this involved a modification in the form of embrasure. General Totten accordingly devised a new style of embrasure with an acute angle at the throat, and this could be rendered sufficiently strong only by making the throat of wrought iron. General Totten accordingly instituted a series of experiments to ascertain the thickness of plate required to resist the force of heavy shot at short range. These experiments settled positively the thickness of solid plate required to resist the force of 68-pound shot, and determined the form and material of the embrasures in our modern casemate forts.

It is a curious fact that the long series of elaborate and costly experiments which have been made by the English Admiralty had been anticipated by the engineers of the United States Army. We will also remark, in passing, that the account of General Totten's embrasures in Sir Howard Douglas's great work on "Naval Gunnery" is ridiculously inaccurate.

General Totten was held in the highest esteem by the most able and learned officers of the engineer corps, and his death will cause an emotion of sadness under all the thousand flags of our camps and fortifications.

A TRIBUTE BY MECHANICS.—One of the handsomest gifts to the New York Sanitary Fair is that of a splendid carriage, valued at \$2,500, made at the well-known establishment of Wood Brothers, of this city. A small shield, suspended to the steps, bears this inscription:—"The labor on this carriage is contributed gratuitously by the workmen of Wood Brothers, New York."