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THE PATENT BILL DEFEATED.

The bill which threatened so much injury to the patent system (Senate Bill 300) was brought before the House, March 1, and failed to pass.

The industrial interests of the country have happily escaped an imminent peril; for a measure which involved so serious an invasion of the rights of a valuable species of property, to the discouragement of the class of men upon whose efforts our varied industries are chiefly founded, must have reacted disastrously upon the prosperity of all classes.

Accordingly the thanks, not only of inventors and manufacturers, but of the entire community, are due to the members of Congress who voted against the obnoxious measure, and still more to the thoughtful citizens throughout the land, whose multitudinous protests against the passage of the bill convinced Congress that the people were emphatically opposed to the threatened invasion of the rights of inventors.

The advocates of the measure attribute its failure in Congress very largely to the storm of communications which poured in upon the members during the last days of the session; an admission which inventors, and all who hold that the law should favor the patentee rather than the infringer, will do well to bear in mind. The same honorable and effective weapon of defense against the sophistries of powerful corporations—who are determined to mould the patent system in their own interest and against the just rights of inventors and small manufacturers—will assuredly be needed again.

The victory is but a temporary one. Those who are conspiring against the integrity of the patent system are as persistent as they are powerful and unscrupulous. Their agents in Washington and elsewhere are very adroit in covering their aims. While volubly asserting that their sole purpose is the removal of certain evils attending the administration of the patent law, whereby a few innocent farmers and others are made to suffer the consequences of their own indiscretion, the real object is to secure the virtual reversal of the fundamental spirit of the patent system, so as to give to a few combinations of wealthy railway and manufacturing corporations the practical control, on their own terms, of every invention which they may care to use.

There is good reason to believe that a new scheme, involving all the obnoxious features of the bill just defeated, will be pressed upon the incoming Congress; and unless prompt action is taken by the inventors and individual manufacturers of the country to make sure that their representatives in Congress are not left in ignorance of the practical merits of the questions at issue, there is danger that a skillfully worded bill may be pushed on to passage before the members discover its hidden purpose.

There is throughout the country a widespread and earnest feeling among inventors in favor of the formation of an Inventors' Guild, for the encouragement and defense of patentees. Concerted attack, it is said, should be met by concerted defense; and the inventors of the land are numerous enough to be exceedingly powerful, if they will only act together.

Possibly such an organization, properly sustained and officered, might be useful; but we are inclined to think that it is as individual citizens, insisting on their constitutional rights, that inventors can make their influence most beneficially felt. It is not possible for a properly instructed Congress to become the cat's-paw of anti-patent combinations. And if the inventors of the land will personally attend to the business of placing plainly and persistently before their representatives the questions of fact, justice, and sound policy involved in the preservation of the patent system substantially as it is, amending it only to give greater encouragement to inventors and fewer opportunities to infringers, the selfish aims of infringers' unions will surely be thwarted. The inventors have on their side justice and the support of all intelligent lovers of fair play. They are sure to win if they do not allow their case to fail through their own inaction. The hopeful experience of the past few weeks gives abundant reason to believe that indifference to their rights and interests is not a failing of inventors as a class.

MODEL TENEMENTS.

The problem of housing two or three hundred people to the acre securely, cheaply, and wholesomely, is one of vital importance in a city situated like New York.

The report of the Committee of Awards in the competition of designs for tenement houses, lately instituted by the *Plumber and Sanitary Engineer*, is chiefly valuable in the emphasis it gives to one point, namely, the impossibility of constructing an acceptable tenement house on one city lot, 25 x 100 feet, inclosed by buildings at the sides and in the rear.

The conditions to be met by the competitors were these: 1. Security against fire. 2. Distribution of light. 3. Ventilation. 4. Drainage and other sanitary appointments. 5. Seclusion of each suite and publicity of access. 6. Convenience of arrangements. 7. Inexpensiveness.

One hundred and ninety separate designs were sent in, representing all the leading cities of the United States, besides Canada, and London, England. Fifty-four were rather for apartment houses, with but one or two families on a floor, and were thrown out. Some provided for six families on a floor. The limit was fixed at four families. One plan gave only sixty-five rooms to thirty families.

While the plans to which prizes were given were considered by the committee to be improvements on the existing tenement, not one of them was without serious objections; the decision of the committee being that it is impossible to secure the requirements of physical and moral health within the narrow limits of one city lot.

The matter should not be allowed to rest here. Not only should the building of tenement houses on a single lot be prohibited, but a new test should be made as to the possibility of erecting light, safe, and wholesome tenement houses on two or more lots. Obviously it is not the circumstance that two or three hundred people are trying to live on each acre of land that makes our crowded city wards so unwholesome, but the fact that they are living badly under unfavorable conditions. The Windsor Hotel will house luxuriously five hundred people on two thirds of an acre, and then have an average of but one person to a room. Built in blocks of sufficient size, properly constructed and properly policed, our tenement houses might safely and securely shelter twice as many people to the acre as are now festering in unwholesomeness. And such houses would pay.

PROGRESS OF THE TELEPHONE.

We publish in another column a description of Professor Righi's telephone, made and tried last year at Bologna, Italy, which will be found especially interesting to electricians. It would appear that Professor Righi was not only one of the earliest to make a practical telephone, but his instrument has from the first given superior results. The sounds of the voice are transmitted with marvelous distinctness, are heard at a distance from the receiving instrument; and, in fact, many persons, even large audiences, at one end of a line may hear addresses, etc., made at the opposite end. This in itself is not new, as the Edison and Bell instruments have been used in the same manner. The Righi instrument has the special advantage that when once adjusted it continues to operate perfectly without readjustment for an indefinite period; this, we believe, cannot as yet be claimed for any of the other telephones.

The peculiarity of the new instrument is in transmitting the wave sounds through a diaphragm which rests upon a conducting substance made of a mixture of silver, reduced to an impalpable powder, and carbon, also very finely pulverized; the above devices being mounted or carried on the end of a slender spring. In principle the Righi telephone is similar to Edison's carbon telephone, and also to Hughes', which was based on Edison's. It would seem from the results obtained by the Righi telephone that it would be practicable for the Western Union Telegraph Company, or other corporation, to open a room is this city where the visitor might go, and by payment of a small fee sit and listen to the debates and proceedings of Congress. A wide and unbroken field for other uses of the telephone evidently awaits cultivation by enterprising and active individuals.

Professor Gray, we notice, has lately received a patent for a combination of a telephone with the ordinary Morse instrument, so that the telegrapher may communicate over the same line both by the Morse signals and also by the voice. By the use of the quadruplex instrument on such a line four messages may be transmitted by signals in the usual manner, while conversation may at the same time be carred on over the same wire, all without any interference of the different signals or systems. Thus there is added to the present telegraph system of the country an additional method of communication that promises to be highly promotive of the public convenience. Not only may we send the usual written signals to our friends, but we may also speak with them over the same wire; and the expert telegrapher, while he writes one set of messages with his hand, may, at the same time, send other sets of messages with his voice.

THE MENACE TO EUROPE.

We have been taught to look upon the return of the plague which devastated Europe repeatedly during the middle ages, and ceased its ravages in Europe only at the beginning of the present century, as a practical impossibility. In one epidemic five hundred years ago, when Europe was much less densely populated than now, it has been estimated that not less than 25,000,000 people perished. It was, indeed, a common thing in former ages for entire communities to be utterly wiped out of existence by this terrible pest. That could not happen now, it is said. Our modern physicians are better able to combat disease than were those of the past. Sanitary science has been developed, and effective quarantines are possible. Besides men are more intelligent now, and better fed, better housed, and more amenable to sanitary regulations. All of which is true; and we sincerely trust that the experience of the coming year will demonstrate the present impossibility of any widespread epidemic of the plague now filling Europe with alarm.

But Europe must not neglect to take account of conditions now prevailing in Western and Central Europe—indeed, all over the Continent—specially favorable to the development of an irresistible scourge, which may diminish the population of Europe by one-half within the next five years.

It must not be forgotten that the facilities for rapid communication characteristic of modern civilization may be a source of deadly peril in case of a disease so malignantly infectious as the plague. Nations are most intimately bound together by commerce, and every letter or bale of goods may be a means of transmitting infection. Victims of the disease may traverse the entire breadth of the Continent between the time of exposure and the full development of the