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LEGISLATIVE TRIFLING.

We have before us the draft of a bill recently introduced in the House of Representatives and referred to the Committee on Patents which betrays such a surprising ignorance of the true spirit and meaning of the Patent System as to make one ask how the introducer of the bill ever came to be chosen for the task, or on what grounds he felt himself to be qualified for it.

The document in question is entitled: "A bill to prohibit the granting of a patent where the thing sought to be patented is a mere rearrangement or variance in constructive devices and details of inventions already known. Second: To require the party claiming an infringement to recover judgment against the party charged with such infringement before he can maintain an action against a bona fide purchaser of the article alleged to be an infringement, and to restrict damages to the actual injury. Third: To reduce the time to sixty days in which to file an application for a patent."

It seems hardly necessary to criticize in detail a bill whose absurdities and inconsistencies are so evident to our readers.

The bill provides that no patent shall be granted for a mere rearrangement in constructive devices and details of an invention already known. Now, as every inventor in the country knows, or may readily know, such a provision is entirely superfluous for the reason that under the present practice valid patents are not "granted for a mere rearrangement in constructive devices and details" of an old invention. If the framer of the bill had perused a copy of the SCIENTIFIC AMERICAN Handbook on Patents he would have learned on page 47 that "a mere aggregation or combination of old devices is not patentable when the elements are unchanged in function and effect;" and knowing this he would have saved the time of the House and his own credit by omitting this altogether superfluous clause from the bill.

The second clause of the bill was probably inserted with special reference to the parties who are victimized by professional swindlers, who first sell unlawfully a patented article and then send round in the footsteps of the vendor a second agent purporting to represent the inventor, who threatens to bring action for damages and compromises the matter by accepting a cash payment. Now, although we have every sympathy with the victims of this class of knavery (chiefly residents in the agricultural districts), the evil is not sufficiently widespread to call for a change in the present law, which renders both the manufacturer and purchaser liable to action. The wording of the clause is obscure, but it is evidently intended to provide that a patentee, assignee or grantee must secure judgment against an infringing manufacturer of his patent before he can proceed against the user of it. Apart, however, from the bearing it might have upon the swindling operations above referred to, this provision is entirely unnecessary, for in case the unlicensed manufacturer is known to the inventor, he will naturally prefer to proceed directly against him rather than go to the trouble and expense of suing a multitude of users who may be scattered over a wide extent of territory; and in the case where the manufacturer is not known and the inventor is unable to locate him, it is a manifest injustice to prevent him from taking action against the users and securing a just profit on his invention.

The third proposal, "to reduce the time to sixty days in which to file an application for a patent," is probably fraught with more mischief than either of the other clauses of the bill. Presumably, the sixty days count from the day of publication or public use, and if such a law were passed, it would prove to be a heavy drag upon the hitherto untrammelled march of invention in this country. If the introducer of the bill had any practical knowledge of the subject, he would have known that in the case of the majority of inventions sixty days would be all too short a time in which to test and improve a device before determining on its best mechanical forms and applying for a patent. Inventions are not turned out like bricks from a brick making machine. The process is laborious, painstaking and almost invariably protracted. From the first conception of the idea to its embodiment in a practical working shape is in most cases a period of months rather than of days, and many inventions are of such a kind that a public display of the device is a positive necessity during the experimental period. There are many inventions, such as those relating to public vehicles and conveniences, which can only be tested under the public eye, and to require that such experiments shall be privately conducted is to shut the poor man out of the field.

Although it may be true that for an inventor to let his device lie unpatented for a lengthy period, until others have unsuspectingly patented the same thing and spent money to put it in operation, may occasionally work a hardship, the remedy proposed in this bill is infinitely worse than the disease.

The bill has been referred to the Committee on Patents. There, we have no doubt, it will die a natural death. If it may have served "to point a moral" as to the folly of such legislative trifling as is involved in its presentation on the floor of the House, it will not have spent its brief life in vain.

ELECTRIC TRACTION ON STEAM RAILROADS.

The electrical equipment of a portion of the lines of the New York, New Haven & Hartford Railroad Company, the replacing on these lines of the steam locomotive by the electric motor and the third rail, will mark an important epoch in the history of electric transportation. It was natural that the success of the electric motor on city and suburban lines should lead to an investigation of its fitness for the requirements of traffic on standard steam railroads. Indeed, it is a fact that electrical engineers in the first flush of their success did not hesitate to foretell the speedy relegation of the locomotive to the scrap heap, and it was not uncommon to hear enthusiastic promises of air line railroads with full sized trains running at speeds somewhere in the neighborhood of one hundred and fifty miles an hour.

It was not long, however, before the "facts and figures" of the cost of operation of electric roads, and a scientific analysis of carefully recorded data, proved that the new method of traction was governed by strict limitations, and that it could not be economically applied to the main lines of railroad for all classes of work in the present state of the art of electric traction. It was soon realized that for hauling trains on continuous long distance runs it was altogether inadmissible on account of the cost of transmitting the current, and that the shorter the runs and the more frequent the stops the more favorably did the electric motor compare in point of efficiency and economy with the steam locomotive.

The New York, New Haven & Hartford Railroad Company was quick to act in a matter which was likely to have an important bearing upon the interests of steam railroads. A large portion of their vast passenger traffic was of the local or short distance kind, and it was being seriously cut into by the many electric and trolley lines which had developed an active and successful competition during the past few years. The company resolved to carry out exhaustive experiments, to determine how far and in what manner it would be advisable to electrically equip those of their lines which were being subjected to the severest competition from parallel trolley roads. The experimental work was mainly carried out on what is known as the Nantasket Beach line, and for two years it has been prosecuted with the greatest care and diligence. An examination has been made of the best form of station equipment, transmission, and motors for this particular class of work, and the experience which was gained in this way has been embodied in the equipment of which we give a complete description on another page.

The opening of this line—or rather its reopening—cannot fail to exercise a powerful influence upon all the other great railroads which, like the New Haven road, are suffering from the competition of suburban and interurban trolley roads; and as soon as the new equipment shall have been long enough at work to prove the extent of its superiority to the old system, we may look for some at least of these roads to make a similar change of motive power.

Perhaps the most important point that the company has proved to its satisfaction is that the current may be safely and economically transmitted by means of a third rail laid between the main rails and carried by wooden blocks placed upon the ties. This arrangement did away with the costly, and, for this kind of service, somewhat wasteful overhead trolley wire, and removed at once an obstacle to the adoption of electric traction on trunk roads. There is no perceptible leakage from the third rail under ordinary conditions of weather, and the line has been operated when the whole track was covered with water. Add to this that the risk to the public has been reduced to a minimum by breaking the rail at crossings, fencing it in at stations, and making provision for cutting out the current while the train is stopping at stations, and it will be seen that a most serious problem has been very satisfactorily solved.

As regards the trains themselves, it has been proved that a given weight of passenger cars may be more quickly accelerated than the same weight of cars and steam locomotive combined. The immense advantage which this confers in the operation of a short distance traffic with numerous stops is obvious, and in this lies one of the greatest advantages of the new over the old system. There is also a smoothness of acceleration and an absence of smoke and cinders which conduce greatly to the comfort of the traveling public.

But while the company are satisfied that the system of electric traction which they have so successfully worked out has a great future in the particular branch of railroad service for which it is designed, there is a noticeable absence of any rash promises regarding its application to fast passenger traffic on the through lines. Whether we shall see the application of electricity to this service depends upon the developments which may be made in electric traction as such. In the present state of the art, the management of the great railroads consider that it is unsuited to long distance express service, and that until some more economical system of transmission is devised, it has little hope of being applied in that direction.