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PROGRESS OF PATENT LAW.

A prominent subject in the decisions recently reported is the degree of "invention" needful to support a patent. Patents must be new and useful; the rule is elementary; yet it does not seem—if one may judge from the number of cases in the courts—to be generally understood. The case of the whip tip patent is a striking illustration, for the reason that the invention, so to call it, was really useful, and the judge in deciding against it, said that he was sorry to do so, as the inventor had introduced a real improvement in the trade. This inventor had observed that driving whips, especially long ones without a lash, were expensive because they soon became frayed or broken at the tip end; while the stock remained good, the whole was worthless for defect of the tip. His device for relieving this difficulty was to make whip tips independent of stocks, so that they might be replaced when worn out. Each tip had a socket, which might be fitted to the small end of the stock very much as the successive lengths of a fishing rod are inserted one within another, except that he cut a screw thread on the inside of the socket of the tip, corresponding to one outside the end of the stock, by which the two might be held firmly together. A patent was obtained; but soon a rival began selling whip tips so contrived as to be clinched to the ferrule of the stock instead of being screwed. There was a law suit; and the court decided that the claim of exclusive right to make independent tips could not be maintained because it was not new. Fishing rods have been made for years upon the same principle. To be sure they have not been screwed together, and the patentee of the whip tips was pronounced entitled to his screw. But the competing company was not using a screw; therefore it was allowed to continue the business.

A more recent case is that of the "perfection window cleaner." The description of it is long and complex; but the device was substantially a rubber mounted upon a long handle, adapted to be used in reaching up to clean window panes and other glass surfaces. It consisted only in the adjustment of the rubber strip, supported by a tubular cushion, in a way to bring it advantageously against the surface to be cleaned. The decision of the court was that there was nothing new in the invention; the implement was nothing but a mop or scrubbing brush made of India-rubber.

A still more remarkable case was decided upon a patent for "improved kindling wood." In order to make kindling wood take fire easily and save the kitchen maids the trouble of cutting splinters and shavings, or of hunting for waste paper to set it alight, this inventor proposed to sell the wood in small bundles, in each of which should be tied a little lump of resin, tar, or some combustible of that sort, which would take fire from a common match, and set fire to the bundle. For this he obtained a patent, but the court said that there was no invention; his device was no more than selling tar or resin tied up in a bundle with kindling wood. It was no more patentable than would be selling a cigar with a match tied to it, or a drinking glass with a straw, or a can of food with a fork.

City readers are familiar with the fare boxes used in omnibuses, and in the street cars running unaccompanied by conductors. They are so arranged that a passenger may drop the coin for his fare into a sort of savings bank slit at the top of the apparatus, through which the coin will fall down upon a little movable shelf—what one might perhaps call a diaphragm—where it lies until the driver has inspected it to see that it is a genuine coin, is for the proper amount, etc. He then pulls a lever, which lets the shelf drop, and the coin falls into the company's savings bank below. Obviously the device requires a window for the driver to look through. Fare boxes as thus described have been in use for some time. Patents were more recently taken out for two improvements. One of these consisted in fitting a second window to the rear side of the apparatus; and the other consisted in arranging a reflector in the interior of the box, so that the headlight of the car might shine down and enable the coins to be seen conveniently at night. The Circuit Court has decided against the validity of both these claims. Inserting the additional window is nothing new; the old form of the box included one window, so that the improvement consisted merely in duplicating one of the features of a former device. This is not "invention;" nor is any invention involved in arranging a reflector near a lamp in such a manner as to cast light into a fare box near by it.

Seats for chairs, settees, railroad cars, ferryboat cabins, etc., are nowadays extensively made of veneers, or thin sheets of wood perforated. Strength is gained for the thin wood by gluing one sheet upon another crosswise, and the perforations, being arranged upon some simple design, give both ventilation and ornament. A patent was taken out for this mode of construction; but when it was contested, proof was produced of an earlier patent for gluing veneers together across their grains to make a thin, strong sheet; and also of another earlier patent for perforating sheet metal for making chair bottoms. The Circuit Court then said that the more recent patent for veneers glued together and perforated displayed no invention, and was void.

In two law suits which arose upon the patent for the giant powder, it became necessary to consider the question, How full and precise must be the description of a device in an earlier patent in order to forbid one who invents it anew at a later date from obtaining a valid patent? Judge Blatchford has stated the rule to be that the description in the prior patent must be sufficient to show with certainty how, by following its directions, the article can be made, and this must be a result within the intention of the description, not a mere accident. Showing that by following the directions of an earlier patent, a person might accidentally, through small variations in the process, have hit upon the same result, does not avoid a patent which has been granted to a subsequent inventor.

A noteworthy decision in this branch of the law, in which the patentee was more successful than in the preceding cases, relates to an improvement in water works for cities. Former devices for this purpose have been subject to the defect that the pressure of water from reservoirs, or from force pumps where they were employed, upon hydrants or spigots, was inconveniently variable; sometimes it would be deficient, and then so excessive as to burst the apparatus. The inventor devised pumping machinery so contrived that as fast as the pumps increased the quantity of water in the mains, and so increased the pressure upon the hydrants or spigots, the increased pressure should diminish the action of the pumps automatically; or, afterward, when the flow of water from use diminished the pressure, the diminution should set the pumps at work again more vigorously. The invention has been quite widely adopted. Recently the patentee's priority has been contested, and several English and American contrivances, having the same general purpose, have been brought forward for comparison, but the Circuit Court, after examining them in detail, pronounced them all substantially different and inferior, and sustained the patent.

THE SURPLUS PATENT FUNDS.

In 1868 Congress passed a law requiring the daily receipts of the Patent Office to be deposited in the Treasury, the support of the office to be provided for by annual appropriations from the patent fund. During recent years, under a pretext of economy, the appropriations for the conduct of the Patent Office have been unduly cut down, greatly to the disadvantage of the service, while the surplus fees have accumulated until they now amount to over sixteen hundred thousand dollars. In other words, the inventors of the country have paid in fees to the office, during the past ten or twelve years, this large sum in excess of the cost of the service rendered by the office.

There has naturally arisen the question, What shall be done with these surplus funds?

It is obvious that the most that can be asked of any branch of the public service is that it shall accomplish efficiently and fully the work intended by it. If the fees paid for service by those who are served amount to enough to pay the cost of such efficient service, that is so much more to its credit, and the utmost that can be justly demanded of it has been secured. The only department of the public service which stands in this unique position is the Patent Office. It has been and is self-supporting—and more.

If in doing this it has also done its legitimate work with the highest degree of efficiency justice to the clients of the office, the patentees, demands that the fees should be cut down so as to cover the cost of the service, and no more. If the office has been prevented, through insufficient appropriations, from doing its work as well as it might, and this is plainly the case, the only alternative is to use the surplus fees for the immediate improvement of the service.

Any diversion of the surplus funds to other uses—as proposed in the bill lately passed by the Senate and now pending in the House, transferring the surplus funds of the Patent Office to an educational fund—is equivalent to laying a special tax upon inventors, which is certainly neither fair nor politic.

If the excess of fees cannot be used for the improvement of the Patent Service, there should be no excess of fees. Indeed, justice to our inventors, and a wise national policy looking to the advancement of the useful arts and sciences through the encouragement of invention, plainly indicate two things to be done in this connection:

1st. The passage of Mr. Vance's bill to reduce the fees on patents and caveats, or something like it; and

2d. The employment of the surplus fund now accumulated to improve the working facilities of the Patent Office. The office needs more room to work in; its library should be extended and classified as to matter and thoroughly indexed; a critical digest of the patents that have been issued should be made for the convenience of the public as well as that of the office; and all the patents issued before 1866 should be printed and made accessible to students and inventors at reasonable cost. This done, it is quite possible that the fees named in Mr. Vance's bill would suffice to cover the running expenses of the office with an efficiency of service impossible now, and still less possible should the office have to submit to a diminished income without the improved facilities which a proper use of the surplus funds would secure.

Burnt Clay for Railroad Ballasting.

The Chicago, Burlington, and Quincy Railroad Company are burning clay for ballasting their road. A small fire of bituminous Iowa coal is started on the surface of the ground, and, when burning freely, the fire is covered with a layer of lumpy clay, then alternately coal and clay, the coal decreasing in quantity until at the top it is as one to fifteen. The mass is formed like a cone. Three united cones, each 18 feet high and containing in all about 1,000 cubic yards of material, have been started near Red Oak. They will burn for months. Six hundred miles of road are to be ballasted with this crude pottery broken up. It resembles coal cinder, but is harder.