

or in any part, as a basis for the estimation of damages, but have discovered nothing upon which such estimate could properly be founded. The plaintiffs have, as I have said, chosen to adopt the unquestionably admissible measure of an established license fee. But they have utterly failed to prove its existence with reference to the defendants' trespass. The licenses relied upon are inclusive of all the claims of the patent, of which there are seven, but the present inquiry relates to but two of them, and no evidence was adduced from which the entire fee could be, with any degree of certainty whatever, apportioned between the claims which are and those which are not involved in this litigation. The value of the part adjudged to have been taken by the defendants has not been shown at all, and though, as already indicated, the law does not exact from plaintiffs in such cases more than reasonable precision of proof of the amount of their damage, it is not permissible to merely guess upon that subject any more than upon any other matter submitted for judicial investigation. I deem it unnecessary to extend the discussion further. It is sufficient to say that I find no error in the master's findings or conclusion, and concur in his reasoning and opinion. The report of the master is confirmed, and the exceptions dismissed. I am of opinion that the plaintiffs are entitled to costs. *Kirk v. Du Bois*, 46 Fed. 486; *Calkins v. Bertrand*, 8 Fed. 755. Let the reported form of decree be accordingly supplemented by adding thereto the words "and costs," and thereupon the decree recommended by the master will be entered as the decree of the court.

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DAVIS v. CHESAPEAKE & P. TEL. CO. OF BALTIMORE CITY.

(Circuit Court, D. Maryland. January 7, 1897.)

No. 229.

1. PATENTS—VALIDITY AND INFRINGEMENT.

The Watts patent, No. 223,969, for an electrical switch pin, so constructed as to retain itself securely in the switch board, as against any liability to be displaced by accidental jars or jolts, construed, and held valid and infringed.

2. SAME—IMPLIED LICENSE.

A patentee of electrical switch pins, who sells out, to a company of which he is a stockholder, a telephone exchange in which he has the patented pins in use, thereby impliedly licenses the company to employ the pins in use at the time of the sale, but not to procure other pins which infringe his patent.

This was an action at law by Augustus G. Davis against the Chesapeake & Potomac Telephone Company of Baltimore City, for alleged infringement of a patent for electrical switch pins. By agreement, the case was tried to the court, without a jury.

Steuart & Steuart, for plaintiff.

Barton & Brown and Bernard Carter, for defendant.

MORRIS, District Judge. This action at law, of trespass on the case, to recover damages for infringement of patent, was instituted April 10, 1896. The patent in suit is No. 223,969, granted January

27, 1880, to J. Henry C. Watts, for an electrical switch pin. By assignment dated September 6, 1883, Watts assigned all his interest therein to his former partner, the plaintiff.

The specification is as follows.

"My invention relates to that class of devices in use for closing circuit on telegraphic or telephonic switch boards; and it has for its object to furnish a device for the purpose named, so constructed as to retain itself securely in the switch board, and be not liable to become displaced from the hole by accidental jars or jolts. Switch-board pins have heretofore generally been furnished with cylindrical tips, cleft longitudinally at right angles, so as to be compressible and bind against the metallic edges of the switch-board holes when thrust therein. As a result, the tips of the pins, when in place, were tapering, and this taper became permanent as the metal of which the tips were composed gradually lost its resiliency from constant or intermittent use. In any case, even when the pins were new, the resultant of the thrusts against the edges of the switch-board holes was outward from the board, so that the security of the pins was represented by the difference between this force and the coefficient of friction, and the pins were liable to fall out of the holes. I obviate this tendency by so constructing the pins that they tend to press into the holes, instead of outward; and the result of jars or jolts to the switchboard is to settle the pins, if possible, more firmly in the holes. This I effect by providing the pins with an enlarged resilient tip, whereby the thrust against the edges of the switch hole is such as to tend to draw the pin into the hole, as will readily be understood.

"In the accompanying drawings, A is the connecting wire, and B the handle of the pin, constructed, by preference, of hard rubber or equivalent insulator, in order to avoid the perception of a shock as one withdraws the pin from the board. A metallic thimble, b, is attached to the handle, B, and is screwed into the part b', which is integral with the tip, e. The connection, A, is led through the central hole of the handle, and its metallic core being laid bare and tied in a knot, a, the parts b, b', are screwed together, compressing the knot against the metallic faces, and insuring electric connection, while incidentally furnishing a neat and secure means of attaching the connection, A, to the pin.

Fig. 1.

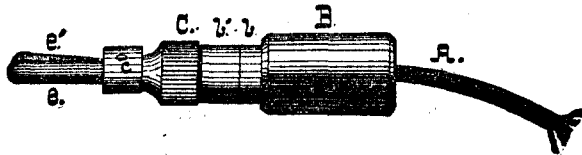
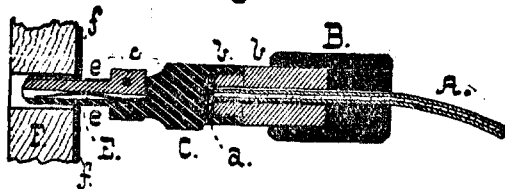


Fig. 2.



"The part b' is milled at C, to afford facility for screwing the parts together or separating them. The tip, e, is cylindrical, and is slotted longitudinally, as shown. In the slot is pivoted, at c, a tongue, e', which is normally thrust outward, as shown in Fig. 1, by means of the spring, E. F is the switchboard, having metallic plates, f, f, as usual.

"The operation of the device will have been made evident from the foregoing description of its construction. Being forced into the switch-board hole, the spring tongue, e', is somewhat depressed in the slot-closing circuit between the plates, f, f. That part of the tip within the hole is, however, larger than the part without it, and the pin is securely retained in place. Especially is the device of importance when used on a telephonic switch board, where there is a constant liability to displace the pins, due to the interlacing and contact of the connections, A, a jerk being apt to be communicated to several pins whose connections are in contact with that of a pin which is being removed from the board. Instead of having the tongue pivoted in a slot in the tip, it may simply shut down upon it; but the described construction is preferred, as it prevents any lateral displacement of the tongue with reference to the tip.

"What I claim as new, and desire to secure by letters patent, is: (1) A switch pin having a resilient tongue pivoted within or upon its tip, as set forth. (2) A switch pin having a longitudinally slotted tip, and a tongue, e', pivoted therein, and normally thrust outward, by means of a spring, as set forth."

It is the first claim which the plaintiff alleges is infringed. The defendant pleaded the general issue, and gave notice of certain patents and publications relied upon to show want of novelty, and the names and addresses of persons alleged to have had prior knowledge of the supposed invention. The device used by the defendant is a switch-board pin, having a cylindrical metal tip, like the Watts patent. It is slotted longitudinally, and it has a tongue which is normally thrust outward. The tongue, when the tip is thrust into the switch-board hole, is compressed, and, by its resilience, it forces the pin hard against the metallic surfaces of the hole, and keeps it tightly in its place. The outline of the tongue is similar to that of the Watts patent, so that it has no tendency to press outward from the holes, and the vibrations of the switch board do not unsettle it. The pins of both the Watts patent and the defendant have an important advantage, not mentioned in Watts' specification, but necessarily resulting from the resilient tongue, viz. that this resilient tongue pressing against the walls of the switch-board hole maintains a more perfect and constant electrical contact between the pin and the switch board.

The only difference between the pin of the Watts patent and defendant's pin is this: The pin of the patent is made with a rigid tongue in a slot cut in the tip, and forced outward by a spring, and with the inner end of the tongue fastened to the tip by a pivot. The tongue of the defendant's pin is a thin piece of steel, having the same outline as the tongue of the Watts pin, and compressible into a slot in the pin, and normally thrust outward, by reason of its inner end being held down in the slot by the encircling band of the handle of the pin, and by reason of the fact that it is made with a crosspiece of metal near its inner fixed end, and the further fact that that end is bent upwardly. This upturned end, being held down by the encircling handle, forces the free end to thrust outwardly from the slot. The difference, then, is that, instead of a separate spring under the tongue to force it outward, the tongue in the defendant's pin is itself a spring, and, instead of a separate crosspiece passing through a hole drilled in the tongue, the defendant's spring has a crosspiece of itself resting in a transverse slot, which is the pivotal point from which the free end moves.

The testimony shows that switch pins used before Watts' were of two kinds. One was a tapering, solid plug, fitting into a tapering hole. These required an effort on the part of the operator to force them in, and vibrations of the switch board loosened them. The others were cylindrical, and were cut longitudinally into quarters, by two cross cuts. The four tongues thus formed had something of the resilience of the Watts tongue, but were apt to lose it in constant use, and the cuts were apt to fill with dirt. The other form was a hollow cylinder or tube, cut in the same way, and with a tapering solid plug set in the center of the hole, which forced the splits apart against the sides of the hole, and tended to make a more perfect electrical contact. All these forms of pins answered for telegraphic service, but in a telephone exchange more quickness is required, and less conscious effort by the operator in putting the pin in place is desirable; and, to meet these requirements, the Watts pin was designed. It would appear to have a decided advantage over the solid tapering plug, which must be forced in. It has one noticeable advantage over the split pin, in having its end solid; so that the end can be used (as it is used in defendant's pin) for an additional electrical contact.

It is urged that the first claim of the Watts device must be limited to a tongue which is pivoted upon the tip, and that the tongue of the defendant's tip is not pivoted. It seems to me that the true meaning of "pivoted within or upon its tip," in the first claim, is that the tongue, which is resilient,—that is to say, having elastic recoil from pressure,—is to work upon a point on the tip as its pivot. How it is to be pivoted, whether upon a transverse pin, as shown in Watts' drawing, or upon a crosspiece of itself, set in a transverse slot, and held in place by an encircling band, as shown in defendant's exhibit, is, it seems to me, a mere matter of mechanical construction. The essential idea of the device was that the tongue was not to be made by cutting the pin itself into slits, but by an independent tongue fastened upon it, and that its operation was such that it had no tendency to throw the pin out of the hole, or to work loose with vibrations. The inventor shows by the clause in his specification just preceding his claim that he contemplated the tongue being made without any slot cut into the tip, and if it was so made, as he says, by the tongue being simply "shut down upon the tip," it is difficult to imagine how it could be more easily and obviously done than by an encircling band to hold it in place against the tip at its fastened end.

It is urged that it appears from the drawings and specification of the Watts patent that his pin was only intended to be used on a switch board, in which the hole in the metallic plates of the switch board is smaller than the interior of the hole, thus having a tendency to retain the pin in place; and that defendant's switch board is not so constructed. But it does not invalidate the Watts patent if it has turned out that it is also useful in other forms of switch boards. To substitute a thin spring of steel of the same outline as the solid metal tongue, and to substitute a pivot of a crosspiece of metal held down in a transverse slot for the axial pivot of the

Watts patent, are familiar mechanical equivalents, more cheaply made, but having no different function.

The following patents have been offered in evidence by the defendant as either showing anticipation, or such a prior state of the art as limits the patent in suit to a construction which acquits the defendant of infringement: No. 64,654, G. Floyd, May 14, 1867; No. 90,270, G. S. Jones, May 18, 1869; No. 142,817, W. D. Sargent, September 16, 1873; No. 164,940, A. Ryder, June 29, 1875; No. 172,504, A. Ryder, January 18, 1876; No. 206,154, Walker and Egerton, July 16, 1878; No. 207,538, Mees and Sherman, August 27, 1878; No. 219,936, H. M. Green, September 23, 1879. I have considered all these devices carefully, but none seem to me to have the effect claimed for them by defendant's experts. The defense of a license is not pleaded, but it is urged that the testimony of the plaintiff himself discloses a state of facts which works an estoppel against him from enforcing any right of action on this patent against the defendant. The plaintiff, on cross-examination, testified as follows: That, prior to 1879, he and the patentee, Watts, were engaged in manufacturing electrical appliances; that, in 1879, Davis and Watts obtained from the American Telephone Company a license to operate the Bell telephone invention in Maryland; that they established the Baltimore Exchange, and controlled it until 1883; that in 1883 they had in use about 15 switch boards, using 30 to 40 switch pins to each board; that, in 1880, Watts, to remedy the difficulties of the old forms of pins, invented the one, on which the Watts patent was granted; that they were manufactured by Davis and Watts, and put into the Baltimore Exchange; that, in 1883, Davis and Watts sold out the Baltimore Exchange to the defendant company, in which the plaintiff has always been a stockholder, and still is a stockholder, to a large amount. This transaction obviously would be an implied license to use the patented pins which were in use at the time of the sale to the defendant company, and would estop the plaintiff from maintaining an action for damages for their use. It appears, however, from the testimony of the present assistant electrician of the defendant company, that none of the pins made by Davis and Watts were in use in the Baltimore Exchange when this suit was brought, but that they have in use about 240 pins like the one marked "Defendant's Exhibit Switch Pin," which is the one hereinbefore described, and which I hold to be an infringement.

It seems to me that the extent of the implied license, and the extent of the estoppel, would not cover the additional switch pins which the defendant has had manufactured, and has now in use. I hold that the true construction of the first clause of the Watts patent is that which I have indicated in the foregoing opinion. I find that the switch pin used by the defendant company, of which the pin marked "Defendant's Exhibit Switch Pin" is a sample, does infringe the first claim of the Watts patent, No. 223,969, as I have construed it. I find the plaintiff to be the assignee and sole owner of the said patent. The plaintiff has not undertaken to prove damages. I find a verdict for the plaintiff, with one cent damages.

**NEW YORK FILTER MANUF'G CO. v. NIAGARA FALLS WATER-  
WORKS CO.**

(Circuit Court, N. D. New York. December 29, 1896.)

**PATENTS—INFRINGEMENT—METHOD OF FILTRATION.**

The Hyatt patent, No. 293,740, for a method of purifying water by introducing into it a coagulant simultaneously with its passage to the filter, thereby avoiding the use of the settling basins of the prior art, and making the process continuous, construed, on motion for a preliminary injunction, and held infringed by a process in which the water is passed by a continuous flow through tanks before entering the filter, such tanks not in fact performing the function of settling tanks. *Schwarzwalder v. Filter Co.*, 13 C. C. A. 380, 66 Fed. 152, explained and followed.

This was a suit in equity by the New York Filter Manufacturing Company against the Niagara Falls Waterworks Company for alleged infringement of a patent for an improved method of filtration. The cause was heard on a motion for a preliminary injunction.

M. H. Phelps and John R. Bennett, for complainant.

J. E. Hindon Hyde and Frederic H. Betts, for defendant.

COXE, District Judge. The complainant moves for a preliminary injunction restraining the defendant from infringing letters patent No. 293,740, granted to Isaiah S. Hyatt, February 19, 1884, for an improved method of filtration.

The patent has been sustained, after years of litigation, by the circuit court and by the circuit court of appeals. *New York Filter Co. v. O. H. Jewell Filter Co.*, 61 Fed. 840, affirmed *Schwarzwalder v. Filter Co.*, 13 C. C. A. 380, 66 Fed. 152. A motion for leave to amend and introduce new proof was denied. *New York Filter Co. v. O. H. Jewell Filter Co.*, 62 Fed. 582. That Hyatt made a valuable invention is established conclusively by these decrees. Debate on that question is closed.

The defendant finds the principal justification for its acts in the concluding sentences of the opinion of the circuit court of appeals, as follows:

"In some of the plants of the corporation defendant settling tanks are used between the introduction of the coagulant and the filter bed. In those plants the method of the patent is not appropriated and there is no infringement."

It is argued that this language exempts from the claim of the patent all processes which employ settling tanks irrespective of their size, shape, capacity or the amount of sedimentation. A person may, therefore, use the Hyatt method with impunity, if, somewhere between the introduction of the coagulant and the entrance of the water into the filter, he places a receptacle larger than the inlet pipe, through which the water must pass. It is thought that this is not a correct exegesis of the judgment of the court. It is contrary to the spirit of the opinion. It is at variance with the statement of the invention as previously expounded and it has no basis of proof on which to rest.

It is stated in the moving affidavits, and not denied, that the sole question of infringement involved in the Schwarzwalder Case related to one particular plant erected by the Jewell Company where