

NATIONAL CASH REGISTER CO. v. BOSTON CASH INDICATOR & RECORDER Co. *et al.*

SAME v. BOSTON CASH INDICATOR & RECORDER Co.

(Circuit Court, D. Massachusetts. March 23, 1891.)

1. PATENTS FOR INVENTIONS—INFRINGEMENT—CASH REGISTER.

Letters patent No. 271,363, issued January 30, 1883, to James Ritty and John Birch, for an improvement in cash registers, was intended to remedy previous devices, which, when they became worn or clogged with dust, permitted two tablets, indicating the amount of the purchase, to be in view of the customer at the same time. This object was accomplished by means of a pivoted-supporting wing and connecting mechanism, whereby the support which holds up the tablet rods is pressed so far away from the shoulders of the rod that they are sure to fall by force of gravity. *Held* that, as cash registers were old at the date of the patent, it must be confined to the specific mechanism, or its equivalent, which makes up the combination covered by it, and that it was not infringed by another cash register which accomplishes the same result by means of a sliding-bar, with projections, which reaches across in front of the rows of the tablets, and is arranged upon a guide-frame in which the rods slide up and down.

2. SAME—COMBINED CASH REGISTER AND SPRING DRAWER.

Letters patent No. 253,506, was issued February 14, 1882, to Michael Campbell, for a combination of a cash register with a spring drawer; the connecting mechanism being a somewhat complicated system of toggle joints in combination with a sliding bar. *Held* that, as both cash registers and spring drawers were old, the patent would not be construed to cover all forms of connecting devices known at the time, and that it was not infringed by another cash-registering apparatus combined with a spring drawer, which does not employ any of the connecting devices described in Campbell's patent.

In Equity.

Lysander Hill, William A. Macleod, and Edward W. Rector, for complainant.

Frederick P. Fish and William K. Richardson, for defendants.

COLT, J. These two cases were tried together. The first suit is brought for infringement of letters patent No. 271,363, dated January 30, 1883, granted to James Ritty and John Birch for certain new and useful improvements in cash registers. The specification states:

"Our invention relates to an improvement in cash registers and indicators designed for the use of store-keepers and others as a means of accurately registering the total cash receipts for any given period of time,—as a day, for instance,—and for indicating to the customers that the amount paid has been registered, by disclosing to their view such amounts upon figured tablets. The arrangement of the parts and operation of the machine are such that no tablet can be exhibited without its value being counted upon the registering mechanism, and whenever any tablet is disclosed it remains so until the machine is operated to disclose a second tablet. The novelty of our invention consists in the construction, combinations, and arrangements of the various parts, as will be herewith set forth and specifically claimed. * * *

"In the lower portion of the frame, and extending horizontally across it, is a rod or shaft, D, supported by and aiding to connect the sides, B, of the frame. Upon this shaft are hung a series of parallel keys, E. * * * Each key has upon its front end, which extends through and projects from an opening in the front of the case or frame, a button, c, having marked upon it a figure to cor-

respond with the value intended to be indicated and registered whenever that key is operated by depressing the button. * * *

"Resting upon the flattened ends of the keys are vertical metal rods, F,—one for each key,—which pass and have vertical play through perforations in metal guide-bars, G, extending across and supported by the sides, B. * * * The upper portion of each rod, just above the upper bar, G, is bent to form a knuckle or shoulder, *d*, upon its rear side, which has beveled or inclined operating-faces, for a purpose to be presently explained.

"Suitably secured to the top of each rod is a tablet, H, of thin flat metal, and upon the face of each tablet is a number corresponding with the number upon the key over whose rear end the rod of that tablet rests. * * *

"Now, it is an important feature of our machine that after a key has been operated and its tablet exposed to view such tablet shall remain up and exposed until another key is operated, whereupon the first falls back out of view and the second remains exposed, and so on, thus always keeping in view the tablet of the key last operated. To effect this result we pivot, by means of trunnions or a shaft extending between the sides, B, a forwardly-inclined wing, I, pivoted at its lower edge, as at *f*, and resting at its upper edge against the rear sides of the upper portions of the rods, F. This wing extends back of all of the rods, and is free to vibrate on its pivotal axis, *f*. It is yieldingly held against the rods by any suitable spring, a spiral spring being shown for that purpose in Fig. 2, secured at one end of the wing and to the side, B, of the frame. Just on the inner sides of the frames, B, and pivoted upon the shaft, D, are flat arms, J, extending upward and rearward, and downward and forward of their pivotal points. The front ends of these arms extend into the opening made for the keys in the front of the case, A, and are connected by a bar, K, extending entirely across this opening, and resting up against the under sides of all the keys. Of course, when any one of the keys is depressed, the bar, K, is likewise carried down, and the upper portions of the arms, J, are vibrated forward, as seen in Fig. 2, where the dotted lines represent the normal position of the arms and one of the lower bank of keys, and the unbroken lines show the key depressed, carrying down the bar, K, and drawing forward the arms, J. To return the bar, J, when the key is released, and to assist the key itself to return, any suitable spring may be employed. We have shown one, *g*, Fig. 2, connected at one end to one of the arms, J, and at its other end to the side of the frame, B. Pivoted at *h*, upon the right-hand side of the frame, B, Fig. 1, is a bell-crank tripping-arm, L, with the rear end rounded and resting against the upper portion of the front side of the wing, I. Its vibration is limited by two pins or detents, *i*, as shown, and upon the same pivot, *h*, is hung a follower, *j*, whose lower end extends below the elbow of the bell-crank, and whose rear edge rests against a shoulder, *k*, upon the bell-crank. The lower end of this follower has a beveled engaging-nose, *l*, against which the upper end of a trigger, *m*, pivoted at or near its middle, as at *o*, to the side, B, rests. The lower end of this trigger is connected to the upper end of the arm, J, on that side of the machine by a link, *p*. The opposite arm, J, Figs. 2 and 3, is connected by a similar link, *q*, to similar tripping mechanism, *r*, *s*, *t*, for operating the hammer, *u*, of a bell or gong, M, which is secured in any suitable manner to the side, B, of the frame. Now, the operation of this much of the machine is as follows: When any key is pressed down its rod and tablet are raised, and the elbow, *d*, of the rod, in rising, aids in pressing back the wing, I; but to aid the elbow the arm, J, on the right, which, as before explained, is drawn forward whenever a key is pressed, imparts motion to the link, *p*, and trigger, *m*, whose upper end, acting on the nose, *l*, of the follower, *j*, presses it back, and with it the bell-crank, L, which is thus forced against the wing and presses it back. Now, the parts are so arranged that when the lower side of the elbow, *d*, is just above the top edge of the wing, the key has

completed its downward stroke, and is arrested by the front bar, *N*, of the case, the trigger, *m*, has passed beyond the nose, *l*, of the bell-crank, so that the latter swings back out of the way, and the spring, *q*¹, draws the wing forward under the elbow, *d*, so that the latter rests upon the upper edge, as seen at *b*¹, Figs. 1 and 2, and there remains, thus retaining the tablet and rod of the operated key elevated. Now, upon releasing the key it falls backward to its normal position by gravity, and is aided by the spring, *g*, Fig. 2, which returns the bar, *k*, and arms, *J*. The follower, *j*, being free to swing forward without moving the bell-crank, permits the trigger, *m*, to flip it up and pass under its nose to its normal position. During this operation the opposite arm, *J*, Fig. 2, has in like manner actuated the hammer of the gong, which is sounded every time a key is depressed to farthest limit, and only then, and thus gives notice to the customer that the machine has been properly operated. Whenever the same key is successively operated, its rod and the tablet remain up and exposed to view; but when a different key is operated the tablet of the previous one is released, and falls back out of sight, and the tablet of the operated key remains up and exposed."

The first claim is in controversy in this suit, which is as follows:

"In a registering and indicating machine, the combination, with a series of indicating tablets operated by a series of keys, of a series of rods, each provided with a detent or shoulder, and carrying one of the aforesaid tablets, and a supporting-wing with connecting mechanism, whereby upon operating any one of the keys the wing is so moved as to permit the passage of the rod, and whereby upon the release of the key the wing engages with and holds up the tablet-rod and tablet, substantially as described."

The object of a cash register is twofold:—*First*, to register at the close of the day the total amount of sales; and, *second*, to indicate the amount of each sale upon the tablet, which is raised into the view of the customer by the pressure upon the key. At the date of the Ritty and Birch invention it is admitted that cash registers were old. A series of keys, rods, and indicating tablets are to be found in the prior English Pottin patent of May 28, 1877, and in the Campbell patent of February 14, 1882. In these machines we find an indicating mechanism which in its general features is the same as that of the patent in suit. The most, therefore, that Ritty and Birch can claim, in view of the prior state of the art, is an improvement upon the Pottin and Campbell registers, and that improvement consisted in devices whereby it was made certain that the preceding tablet would fall when another tablet came into view. In previous devices it was found that if the shoulders upon the rods became worn, or the machine became clogged with dust, you could not always rely upon the falling of the preceding tablet when the key was pressed and another tablet raised, and that consequently two tablets might be in sight of the customer at the same time. The object of the Ritty and Birch patent was to remedy this defect. This was done by means of the wing and connecting mechanism, whereby the support which holds the tablet rods up is pressed so far away from the shoulders of the rods that they are sure to fall by the force of gravity. It is contended that all Ritty and Birch are entitled to under their patent is the specific mechanism, or its equivalent, by which this improvement was accomplished, and the only question in this case is whether the court should give such

a broad construction to the first claim of the patent as to cover the defendants' device. I am of opinion that, in view of the prior state of the art, the Ritty and Birch patent must be confined to the specific mechanism, or its equivalent, which go to make up the combination covered by the first claim of the patent. The only novel feature in that claim is the supporting wing with connecting mechanism, and the question therefore narrows itself down to this,—do the defendants in their machine use these devices, or well-known equivalents thereof? I do not find in the defendants' register the wing and connecting mechanism of the Ritty and Birch patent.

The defendants' machine is of the Pottin and Campbell type. It has what is common to all these machines,—a series of keys pivoted upon a bar, and a series of tablets with numbers thereon. It has also a registering mechanism, but here it seems to me the resemblance between the two machines ceases. It has no pivoted-supporting wing such as is shown in the patent in suit, but instead thereof it has a sliding bar, with projections, which reaches across in front of the rows of tablets, and is arranged upon a guide-frame in which the rods slide up and down. The tablet-rods are not bent as in the complainants' machine, nor do we find the same connecting devices, such as the flat arms, J, link, trigger and bent lever, L, with follower. In the construction of the connecting mechanism, so-called, the defendants use a plate hung by lugs on the same shaft upon which the keys are pivoted, extending above the whole bank of keys. Upon the left end of the plate is a pin which engages a bell-crank lever pivoted upon an arm set in the bottom of the machine. One end of this lever is operated by the pin, and the other end has a cam upon it which engages with another cam upon an arm projecting downward from the sliding bar. The bell-crank lever is pulled to the left at its lower end by a spring. When any key is depressed, by means of the pin, which lifts the lower end of the lever, the cam end of the lever slides down the cam connected with the sliding bar, and throws the bar to the left, thereby releasing any tablet which may have been raised. At the time when the key is completely depressed the cam upon the lower end of the lever comes below the cam on the lower end of the sliding bar, and the bar is immediately pulled back into its normal position by a spring, so that any tablet which is being raised will be held by the projection upon the sliding bar. Considering the scope of the Ritty and Birch patent, taken in connection with what existed prior to that invention, I cannot hold the defendants' plate and connecting devices to be the equivalents of the wing with connecting mechanism described in the Ritty and Birch patent. I must therefore decide that there is no infringement, and direct that the bill be dismissed.

The second suit charges infringement of letters patents No. 253,506, granted February 14, 1882, to Michael Campbell, for an improvement in cash-registering apparatus. Campbell's improvement consisted in combining with a cash register a spring drawer. The specification says:

"This invention relates to a cash-registering apparatus to be employed in connection with a cash-drawer. * * *

"The case, A, which receives the working parts of the apparatus to be described, has a locked door, B, and a drawer, C, acted upon a drawer-opener, (shown in Fig. 2,) as a rod, *a*, surrounded by a spiral spring, *a*¹, the spring being compressed when the drawer is closed, as in said figure, where it is held closed by the drawer-holder, (shown as a lever, D,) the inner end of which acts upon the interior of the inner end of the drawer, the outer end of the said lever being held up by a spring, *a*², against a toggle lever, *b*, (shown in dotted lines, Fig. 4,) one limb of which is connected with the pawl-carrier, *c*, common to all the levers of the series of levers, *d*, *e*, *f*, while its other limb is joined with a fixed bar, *c*¹, of the apparatus at, *c*², this latter bar serving as a support and guide for the pawl-carrier. The toggle lever, *b*, is bent or thrown down where its two limbs are joined together, whenever the pawl-carrier, *c*, is moved in the direction of the arrow on it, Fig. 4, thus depressing the outer end of the drawer-holder, D, lifting its inner end from the drawer, and permitting the spring, *a*¹, to throw the drawer open, as in Fig. 1, ready to receive a deposit of cash, and at the same time a pawl, *c*³, carried by the pawl-carrier, *c*, engages one of the bars of the lantern-wheel, *c*⁴, causing another bar of the said lantern-wheel to move the lever, *c*⁵, pivoted at *c*⁶, and held against the lantern-wheel by the spring, *c*⁷, the said lever, *c*⁵, being connected at its rear end with an arm, *c*⁸, pivoted at 2, which arm, *c*⁸, is in turn loosely connected with the end of the striker-lever, *c*⁹, pivoted at 3, the striker, *c*¹⁰, on the said lever striking the gong, *c*¹², each time the drawer is opened."

The only claim in controversy is the third:

"In a cash-registering apparatus, a series of keys to designate certain amounts, combined with the drawer, the drawer-holder, D, mediately connected with said keys, and the spring to throw the drawer open when released by the drawer-holder, substantially as described."

The same question presents itself in this suit as in the first, namely, how broad a construction should the court give to the Campbell patent? The registering apparatus was old, the opening of a drawer by means of a spring was old, but the connecting mechanism between a cash register and a spring drawer was new with Campbell. If the defendants' machine contains this connecting mechanism, or what may fairly be considered its equivalent, the complainants are entitled to a decree; but if the connecting mechanism, which is made an element of the claim sued upon, is radically different in the defendants' machine, I cannot say that a case of infringement has been made out. A comparison between the two machines in connection with the record in the case shows that the defendants use a very different connecting mechanism, and one which does not embody the patented device, unless the patent be held to cover all forms of connecting devices known at the time, and I can find no warrant for giving the patent such a liberal construction. Henry B. Renwick, called as an expert on behalf of the complainants, says:

"Now, it is evident that there are no toggles or equivalents of toggles in this defendants' apparatus."

I am aware that he goes on to state that these toggle levers make a part of claim 2 of the patent, and that therefore claim 3 should not be limited to the specific connecting devices described in the patent, or to their equivalents. He further says:

"It therefore seems to me, in view of the language and scope of the third claim of the plaintiff's patent, that if the court shall hold that a claim covers not only the equivalents but also the known substitutes for an apparatus which is one element of the claim, then the defendants' contrivance embodies the invention set forth in the third claim of plaintiff's patent."

Now, by well-settled rules, the court is to look at what the patentee invented, and the means by which he accomplishes the result, and another person does not infringe unless he makes use of the same or equivalent means for accomplishing the same result. I know in a certain class of cases the supreme court have given a very liberal construction as to what constitutes an equivalent, but I do not think that either of the patents involved in these suits comes within that class of cases which deal with pioneer inventions. The defendants' machine does not employ the connecting devices which were novel with Campbell. Over the bank of keys a flat plate is pivoted by lugs upon the same shaft as the keys. When any key is actuated, the hooked end of this plate lifts a bolt, which is engaged with a projection upon the drawer beneath, and when the bolt is lifted the drawer is thrown open by a spring behind it. When the door is shut the bolt rises over the incline, and falls on its forward side, thereby holding the drawer closed. This simple contrivance does away with the somewhat complicated system of toggle levers in combination with a sliding bar, which is the connecting mechanism invented by Campbell, and found described in his patent. Holding that the defendant's machine is not within the Campbell patent, I must direct that the bill be dismissed. Bills dismissed.

KELLY *et al.* v. THE TOPSY.

(District Court, D. South Carolina. February 16, 1891.)

1. ADMIRALTY—SEAMEN'S WAGES—COSTS—PROCTOR'S FEES.

The fee of libellant's proctor for attending a reference in a proceeding in admiralty, not being among the fees enumerated in Rev. St. U. S. tit. 13, c. 16, than which none others are allowed to be taxed as costs under Id. § 823, cannot be so taxed.

2. SAME—TELEGRAMS.

Where in an admiralty proceeding for seamen's wages against a foreign vessel a commissioner, in the absence of the judge from the district, heard the testimony, and issued process under Rev. St. U. S. §§ 4546, 4547, and the libellant's proctor, beginning to fear that the statute was not applicable, sent telegrams to the judge, asking him to issue or authorize his warrant of arrest, which he declined to do, such telegrams were for the convenience of the counsel, to save traveling expenses, and the money paid therefor cannot be taxed as costs, as money properly and necessarily expended.

3. SAME—COMMISSIONER'S COSTS.

Where in admiralty proceedings for seamen's wages there were four seamen whose cause of complaint was the same, they should be joined as complainants, under Rev. St. U. S. § 4547, and the commissioner is entitled to charge for issuing, filing, and returning but one summons on the master, and for but one certificate that admiralty process should issue, though in fact he issued four summonses and made four certificates.

4. SAME—DEPOSITIONS.

Under Rev. St. U. S. § 4547, authorizing the issue of admiralty process in proceedings for seamen's wages on the certificate of a commissioner in the absence of the