

Statement of the Case.

NATIONAL CASH REGISTER COMPANY *v.* BOSTON
CASH INDICATOR AND RECORDER COMPANY.APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE DISTRICT OF MASSACHUSETTS.

No. 155. Argued January 17, 1895.—Decided March 4, 1895.

Letters patent No. 271,363, issued January 30, 1883, to James Ritty and John Birch for a cash register and indicator, are valid, and are infringed by the defendant's machine.

THIS was a bill in equity for the infringement of letters patent No. 271,363, issued January 30, 1883, to James Ritty and John Birch for a "cash register and indicator."

The invention, as stated in the specification—

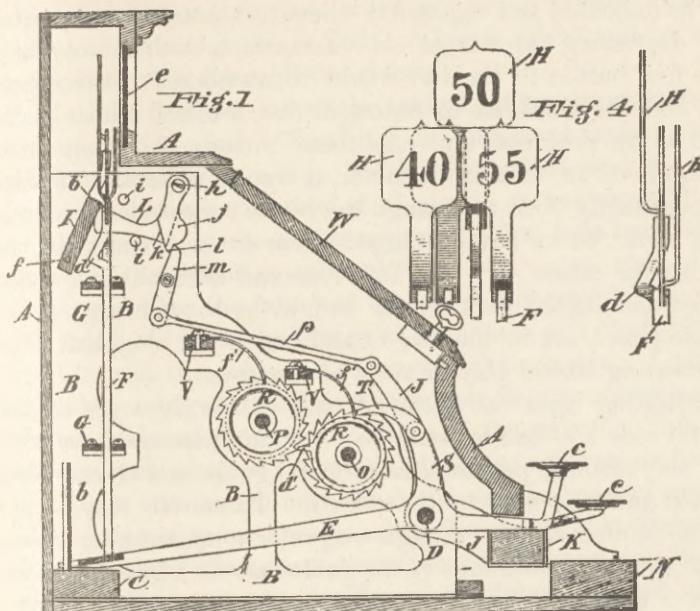
"Relates to an improvement in cash registers and indicators designed for the use of storekeepers and others as a means of accurately registering the total cash receipts for any given period of time—as a day, for instance—and for indicating to the customers that the amount paid has been registered by disclosing to their view such amounts upon figured tablets.

"The arrangements 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."

The following drawing exhibits such particulars of the patent as are pertinent to this suit:

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The material parts of the specification are as follows:

"We provide any suitable box or case, A, ornamented as desired, and of the general shape indicated, though its shape and ornamentation may be varied infinitely. In this outer case is fitted a metal framework, consisting chiefly of two upright sides, B, united by a cross-bar, C, and by the shafts and bars which support the operating mechanism.

"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, of metal, made heavier in the rear, so as to remain in and return to the position indicated in Fig. 1 by their gravity alone, without the use of springs or other devices. In the present instance twenty of these keys are shown, though any number may be employed. 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 correspond with the value intended

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to be indicated and registered whenever that key is operated by depressing the button. In a machine with twenty keys the first button to the left would be numbered 5, the second 10, and the third 15, to represent five, ten, and fifteen cents, and so on progressively. As these buttons are about three-quarters of an inch in diameter, it would make the machine unnecessarily wide to arrange the whole series side by side in one bank; so we have arranged them in two banks, the one above the other. . . . The rear end of each key is flattened and slotted at its outer end, so as to embrace vertical guide-pins *b*, set in the bar *C*, and which aid the shaft *D* in preventing lateral play or twist of the keys.

“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*. These rods may be any shape in cross-section, though we prefer to make them square, with square perforations in the guide-bars *G*. 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 bevelled 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.

“Thus the tablet of the rod resting upon the key whose button is marked 5 is likewise marked 5, and so on through the series. In order to get the tablets into as narrow a space as possible, and thus not make the machine wider than necessary, their stems are bent so that the tablets can overlap each other as shown in Fig. 4, and yet each can be operated without interfering with another.

“In the upper portion of the case is a large horizontal opening extending across the front of the case and covered with transparent glass *e*, Fig. 1, and when the keys are in their normal position of rest, with the rods *F* resting upon their rear ends, all of the tablets are hidden from view below the lower

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edge of the opening *e*; but when any key is pressed down by means of its button the rod of that key is raised and its tablet exposed to view through the glass *e*.

"In Figs. 1 and 4 one of the tablets is thus shown raised up and exposed to view. 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. . . . To return the bar *J* when the key is released, and to assist the key itself to return, any suitable spring may be employed.

"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 bevelled en-

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gaging-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 . . . is connected by a similar link to similar tripping mechanism for operating the hammer of a bell or gong, which is secured in any suitable manner to the side of the frame.

"Now, the operation of thus 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 a' draws the wing forward under the elbow d , so that the latter rests upon the upper edge, as seen at b' , 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 . . . has in like manner actuated the hammer of the gong, which is sounded every time a key is depressed to its 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 pre-

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vious one is released and falls back out of sight, and the tablet of the operated key remains up and exposed."

The remainder of the specification relates to the registering or recording mechanism which is not in issue here. The only claim alleged to have been infringed is the first, which reads as follows :

"1. 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 keys the wing engages with and holds up the tablet-rod and tablet, substantially as described."

The answer put in issue principally the question of infringement, and, upon a hearing upon pleadings and proofs, the Circuit Court found this issue in favor of the defendant, and dismissed the bill. Plaintiff thereupon appealed to this court.

Mr. Edward Rector and Mr. Lysander Hill for appellant.

Mr. Frederick P. Fish, (with whom was *Mr. W. K. Richardson* on the brief,) for appellees.

MR. JUSTICE BROWN, after stating the case, delivered the opinion of the court.

In the past fifteen years, cash registers have become extensively used in retail shops, where each sale is small in amount, such as drug stores, cigar stands, restaurants, and other small establishments, for the purpose of affording a convenient deposit for the cash received, and of preserving a record of every sale made during each day, and of the amount received therefor. The correspondence between the amount indicated by the register and the amount in the drawer shows whether each sale has been properly accounted for. It thus enables the

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proprietor to ascertain at the close of each day's business the amount of sales, and also operates as a check upon the dishonesty of clerks who are held accountable for the amount of money indicated by the register.

To fulfil all its requirements, the cash register and indicator should perform the following functions:

1. It should register the number of sales. This is done upon somewhat the same principle as a steam engine records its own revolutions.

2. It should also register the amount of each sale, and to this end it is provided with a series of keys representing different amounts from five cents to five dollars, by the pressure of which keys a corresponding amount is registered, and added to the previous aggregate of small amounts upon a revolving cylinder.

3. It should also indicate to the customer the proper amount of his purchase by exposing a tablet containing such amount in large figures, which tablet should remain in sight until the next sale is made. If the amount of such sale is a dollar and a fraction of another dollar, two such tablets are exposed, the aggregate of which represents the proper amount. It is necessary in each case that the tablet should remain exposed until another key is touched, when it ought to disappear, that the next customer may recognize the amount of his purchase. The customer is thus made to a certain extent an involuntary detective of the action of the clerk making the sale.

4. The pressure upon the key should also ring a bell, to call the attention of the customer to the exposed indicator or tablet.

5. The pressure of the key is also intended to unlock, and by the aid of a spring, to throw open, the money drawer, which should be shoved back and closed after each sale is made.

6. In some machines a record is made of the number of times the lid is opened, that the proprietor may know whether the box has been tampered with.

If the mechanism does its work properly, it should operate as a complete check upon any attempt at embezzlement, by the salesman, of the funds.

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The patent in suit covers the registering or recording, as well as the indicating mechanism; but as the only claim of the patent alleged to be infringed deals with the indicating mechanism alone, no further reference to the other features of the patent is necessary. This mechanism consists of keys, E, having figures representing values upon their front ends, *e*, and hinged upon a horizontal shaft, D, extending across the machine. The rear end of each key is flattened and slotted to receive the lower ends of vertical rods, F, carrying tablets, H, which are labelled with a figure corresponding with that upon the key. The depression of the front ends of the keys raises the rear ends, together with the rods attached thereto, and brings the tablet into view. Back of these rods is a wing, I, pivoted at its lower edge, *f*, inclined forward, and resting at its upper edge against the rear sides of the upper parts of the rods F. Each rod contains an elbow or projection, *d*, which, as the rod rises, presses back the wing I, and when the pressure is taken off the key, the elbow catches upon the upper side of the wing, and thus holds the tablet up and exposed to view until the key is depressed again, when the wing is again pressed back, the elbow is relieved, and the tablet falls.

To secure a more perfect operation of this wing, a bar, K, is extended across and directly underneath the front ends of the keys, so that whenever any key is depressed this bar is also depressed. Connected with this bar is a train of mechanism, which appears in the drawing and is described in the specification, but which is not necessary to be set out here in full. This mechanism operates directly upon the wing I, and secures beyond peradventure the falling of the tablet, before the elbow of the next tablet rod has passed the upper edge of the wing. This subsidiary train of mechanism, operating directly upon the wing, and independently of the elbow in the rods, is the special feature of the Ritty and Birch patent.

To answer satisfactorily the question of infringement, it is necessary to refer to the state of the art, and to distinguish that which was already well known at the date of this patent, from that which Ritty and Birch contributed by their invention. While the novelty of their device is not directly at-

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tacked, it is claimed that, in view of certain prior patents, their patent is subject to limitations which affect materially the construction of the first claim, and show defendant's machine not to be an infringement.

The earliest patent to which our attention is called, and which may be said to represent the infancy of the art, is that to James Russell, October 10, 1829, for an improvement in bell hanging. This patent, which was issued long before electricity was put to any serviceable use, was intended to be employed in hotels or other buildings, where a series or row of bells had theretofore been used to connect each room with the office. These bells had been hung upon wires or springs, and, when rung, oscillated long enough to call the attention of the attendant to the number of the room with which they were connected. The Russell patent substituted, for the familiar row of bells in the office, a single bell, in a box, with a series of indicators or tablets which protruded from grooves in the box as each bell was sounded. These indicators were mounted upon notched plates of metal, and as each indicator was pulled out by its wire, the plate was caught by a pivoted wing or bar, and the tablet held outside of the box until the next bell was sounded, when it fell back to its place. The wing coöperated with the notch in the metallic plate of the tablet precisely as the wing in the Ritty and Birch patent coöperates with the elbow of the tablet rod, and holds it up until the next tablet is raised. The wing is an obvious anticipation of that in the Ritty and Birch patent, and the whole device differs from it in principle, only in the absence of the connecting mechanism between the keys and the pivoted wing.

The British patent to Henry Pottin of May 28, 1877, for a cash register exhibits, in place of the pivoted wing of the Russell patent, a sliding bar operated by keys. This sliding bar is moved aside by a shoulder in each tablet rod as the rod is raised. After the shoulder has passed a coöperating latch or trip-lever, pivoted upon the bar, the latter is brought back to its position by a spring, and the tablet remains exposed to view. When the key is again depressed, another tablet rod rises, but before its shoulder has passed the coöperating latch

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the first tablet falls upon the latch, which gives way to allow the rod to fall, when the last rod rises and remains exposed to view. These latches are weighted in such manner as to remain in place as the rod rises, but to give way when it is desired that the rod shall fall. The device is an ingenious one, but is chiefly valuable in this connection as showing that, prior to the Ritty and Birch patent, the sliding bar was well known as an equivalent for the pivoted wing. The device of the latches to aid in moving the bar as the tablet rod rises, and to give way at the proper moment to allow the rod to fall, as the next one rises, contains a suggestion of the connecting mechanism of the Ritty and Birch patent, but is in no sense an anticipation of it. It was intended, as in the Ritty and Birch machine, to release with certainty the exposed tablet, when another one was lifted, and it appears to accomplish that result satisfactorily, but by a wholly different means from that employed by Ritty and Birch. Each tablet rod requires a separate weighted latch, and in case of a large number of keys would take up too much room to be conveniently available as a cash register. It is subject to another difficulty, that if two keys are depressed at once, and their corresponding rods are lifted and caught upon the supporting bar, indicating a sale represented by two tablets combined, a subsequent operation of either one of these keys will fail to release either indicator, and both will remain exposed to view. The shoulders of both rods are above and resting upon the supporting bar, and as those shoulders are the only thing that can move the bar, the latter can be moved and the tablets allowed to fall only by the operation of some other key.

The patent to Michael Campbell of February 14, 1882, exhibits a modification of the Pottin sliding bar, the tablets consisting of metal plates sliding up and down between grooves, each tablet having at its upper end a horizontal finger, which engages with a swinging hook. These hooks are all fitted in slots of a transverse sliding bar, mounted at either end in guides upon the wall of the casing, and actuated in one direction by a spring, and in the other by the pressure of the hooks, which are thus caught by the horizontal finger

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of the tablet. The tablet rods are raised by the key levers, with which they are connected by cords and pulleys at their rear ends. Whenever any tablet is raised by depressing the front end of the key, the finger on its upper end is caught by the hook above it, the sliding bar moved against the spring, and the tablet thereby held up. When another key is depressed, and its tablet lifted into engagement with its hook, the latter, through the medium of the sliding bar connecting all the hooks, disengages the first tablet, and permits it to drop out of view. It differs from the Pottin machine in the manner in which the sliding bar is operated, and resembles the Ritty and Birch patent only in the fact that the tablets are raised by the rear ends of the keys acting in connection with the vertical rods, although even this connection is indirect through the intervention of cords and pulleys. It may well be doubted whether this patent exhibits a practically operative combination, since the mechanism is somewhat complicated, and apparently liable to get out of order. The patent covers not only this indicating device, but a mechanism for opening the drawer automatically; and although the patent is owned by the plaintiff, it has never used its indicating mechanism, and the statement of the inventor himself is that the original model is the only machine containing such mechanism that was ever built.

Other patents were put in evidence by the defendant having a relation more or less remote to the patent in suit, but designed rather to show that some form of connecting mechanism had been previously used for other purposes—such, for instance, as ringing the bell at the other side of the machine, moving the carriage of a typewriter, or opening the cash drawer, all by means of a common bar extending above or beneath the whole line of keys, the depression of any one of which not only performs its individual function of raising a tablet, printing its particular letter upon a typewriter, or registering an amount corresponding to that indicated upon the face of the key, but also depresses a common bar, which operates this mechanism. Indeed, it must be admitted that it was no longer new in the art that each key should perform

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not only its individual work of adding, writing, or indicating, but also that all the keys should perform some one common operation. In none of the prior patents, however, is there such a connecting mechanism for the purpose indicated in the Ritty and Birch patent.

To sum up the state of the art, then, at the date of the Ritty and Birch patent: The use of keys to raise vertical rods carrying tablets was not only well known, but lies at the foundation of every cash register to which our attention has been called. It was also old to use a pivoted wing or bar to catch a projection or elbow of the vertical rod, for the purpose of holding the tablet exposed to view, until another tablet was raised. So, too, the use of a sliding bar actuated in one direction by a spring and in the other by a projection from the vertical rod or its tablet, was a recognized equivalent of the pivoted wing. And, finally, a connecting mechanism operated by each one of the keys by means of a bar over or underneath them had been previously used for ringing the bell, opening the cash drawer, and in other machines for other purposes.

What then was the contribution of this patent to the art? It was found that not only must the machine be constructed with extreme and almost impossible accuracy in order to operate as desired, relying on the shoulders alone to move the wing, but that, when the machine was put to use, some of the keys would be used much oftener than others, and the shoulders on the tablet rods belonging to these keys would become worn so that, when one of these keys was operated immediately after one that was less frequently used, the shoulder on its rod would not move the wing back far enough to release the tablet rod of the infrequently used key, which was resting on the wing. So, too, any accumulation of dust, dirt, or oil upon the projections or bar would render their operation uncertain. The consequence was that two tablets might be in view of the customer at the same time. This not only failed to indicate to the customer the amount of his purchase, but afforded to the salesman an opportunity of deceiving the proprietor as to the actual amount of his sales. Indeed, it requires no expert to see that where all the rods are constructed alike, and the

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fall of one rod is made to depend exclusively upon the elevation of another the mechanism would soon become so worn as to be inoperative. To obviate this, Ritty and Birch subdivided the power exerted by the keys in the operation of the pivoted wing, and caused such wing to be put in motion not only by the elbow of the rod, but by the simultaneous, though wholly independent, action of a bell-crank lever, which receives its impulse from the bar beneath the keys, and, with its other arm, shoves back the upper side of the wing far enough to permit the tablet to fall and resume its original position in time to suffer the wing to fall back and catch the elbow of the last tablet rod, and hold it up. It is insisted, however, that, as the connecting mechanism had been previously used upon the other side of the machine to ring the bell and to open the cash drawer, the employment of a similar mechanism for actuating the pivoted wing was a case of mere double use, and, if patentable at all, must be restricted to the exact device used, and cannot be construed to cover a similar train of mechanism for moving the sliding bar.

It did, however, require thought to conceive the idea (1) that a remedy for the existing defects in the machine lay in the independent operation of the wing; and (2) that such operation could be secured by a mechanical connection with the keys. Given these conceptions, it was more a matter of mechanical skill than of invention to devise such connection, since a similar train of mechanism had been operated by the keys for other purposes. It is insisted, however, that, inasmuch as such mechanical connection was well known before, and had been used for analogous purposes, it is a mere case of double use to employ a similar contrivance to actuate the wing. While the use was to a certain extent an analogous one and the mechanism was probably suggested by that employed to ring the bell, there was nothing to suggest that the object to be attained, viz., the more perfect action of the tablet rods, could be accomplished by subdividing the force exerted by the keys, and bringing a portion of their power to bear directly upon the wing itself instead of devoting the whole of such power to the act of raising the rods, and

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depending solely upon the elbows of the rods to operate the wing. There is no conflict here with the principle laid down by this court in *Knapp v. Morss*, 150 U. S. 221, 227, and *Wollensak v. Sargent*, 151 U. S. 227, that the end or purpose sought to be accomplished by a device is not the subject of a patent, but only the new and useful means for obtaining that end, since the end or purpose to be accomplished in this case was not the moving of the wing, but the more perfect operation of the rods; and the means used to accomplish it was a subdivision of the power exerted by the keys, and the application of a portion of it directly to the wing itself. The fallacy of defendant's argument in this connection lies in the assumption that the object to be accomplished was the moving of the wing, whereas this was only a means for the ultimate purpose, viz., the more satisfactory operation of the rods. Indeed, this use of the connecting mechanism can hardly be termed analogous to such as similar mechanisms had been previously used for; but even if it were, the results are so important, and the ingenuity displayed to bring them about is such that we are not disposed to deny the patentees the merit of invention. The combination described in the first claim was clearly new.

The cases cited by defendant upon the subject of double use are not applicable; such, for instance, as *Brown v. Piper*, 91 U. S. 37, in which a claim for preserving fish and other articles in a closed chamber by means of a freezing mixture, was held to have been anticipated by a similar patent for preserving bodies, and also by the ordinary ice-cream freezer; *Pennsylvania Railroad v. Locomotive Truck Company*, 110 U. S. 490, in which a patent for employing a certain truck for locomotive engines was held to be invalid in view of the employment of a similar truck for railroad cars; *Aron v. Manhattan Railroad Co.*, 132 U. S. 84, wherein a patent for simultaneously opening two gates at the end of two adjoining passenger coaches was held invalid in view of previous patents for opening a single gate, and devices to open and close apertures at a distance from the operator *Wollensak v. Sargent*, 151 U. S. 221, wherein a patent for opening and

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closing a transom over a door by means of a vertical rod was held to have been anticipated by a patent for opening and closing a series of passenger car ventilators or transoms by a horizontal rod; *Blake v. San Francisco*, 113 U. S. 679, wherein the adaptation of an automatic valve, previously known and in use to a steam fire engine, was held not to involve invention; and *St. Germain v. Brunswick*, 135 U. S. 227, wherein a revolving rack for billiard cues was held to be anticipated by such revolving contrivances as dining-tables and bottle castors. In all these cases the prior uses were such obviously analogous ones that there could be no doubt of the invalidity of the patent.

In the defendant's machine the sliding bar of the Campbell and Pottin patents is substituted for the pivoted wing of the Russell and the Ritty and Birch patents, but, as before observed, they were well-known equivalents for each other, and the mechanism by which they had theretofore been operated was also well known. They were apparently subject to certain defects in their operation, which impaired their efficiency, and required the use of an independent means to secure the release of the first rod before the second one was raised into place. Whether this were done by the simultaneous action of the elbow of the rod and that of the connecting mechanism upon the wing, as in the Ritty and Birch patent, or by the prior action of such mechanism, as in defendant's device, is immaterial, so long as such action is independent of the action of the rods themselves. We have already stated how this was accomplished by the Ritty and Birch patent. Defendant also employed a universal bar operated by each key, corresponding with the bar K of plaintiff's patent, but located above the keys instead of beneath them, and back of the shaft upon which the keys are pivoted instead of in front of it. The operation of the keys is, therefore, to raise this bar instead of depressing it. A rod projecting from the end of this bar engages with the arm of a bell-crank lever, the other arm of which is so connected with an arm of the sliding bar projecting downwards that the depression of the key moves the bar to one side far enough to release the tablet rod already

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raised before the lug on the second or rising rod has passed the sliding bar. When the second rod has risen to its full height, the sliding bar is released from the action of the bell-crank lever, and is drawn back to its place by a spring, in time to hold the second rod up by a lug on the bar, corresponding to the lug on the rod. The operation of the two devices is the same, except that in the Ritty and Birch patent the action of the connecting mechanism in pushing back the pivoted wing is simultaneous with, and to a certain extent aided by, the elbow of the rod, while in defendant's device the action of the connecting mechanism in moving the bar is exclusive of any assistance from the rod. But, as already observed, this simultaneous action is a wholly immaterial feature of the Ritty and Birch patent. While the details of the defendant's machine are quite different from that of the plaintiff, the underlying principle of releasing the first tablet before, or simultaneously with, the elevation of the second tablet by the aid of an independent train of mechanism put in motion by the depression of the key, is precisely the same. This principle being already known, the contrivance of a connecting mechanism which should operate to move a sliding bar as the pivoted wing of the Ritty and Birch patent was moved, was a comparatively easy matter, though, perhaps, involving invention to a limited degree. In a word, there were two known methods of accomplishing the same result — a pivoted wing and a sliding bar. Ritty and Birch invented a train of mechanism to operate the pivoted wing; defendant adopted a similar method to operate a sliding bar. Had defendant also invented the sliding bar and applied this mechanism to it, the case would have fallen within our ruling in *Aron v. Manhattan Railroad Co.*, as the adoption of a different means of accomplishing the same result. But the means in this case being well-known equivalents for each other, we think the charge of infringement is made out.

The decree of the court below is, therefore,

Reversed, and the case remanded for further proceedings in conformity with this opinion.