

No. 677,890.

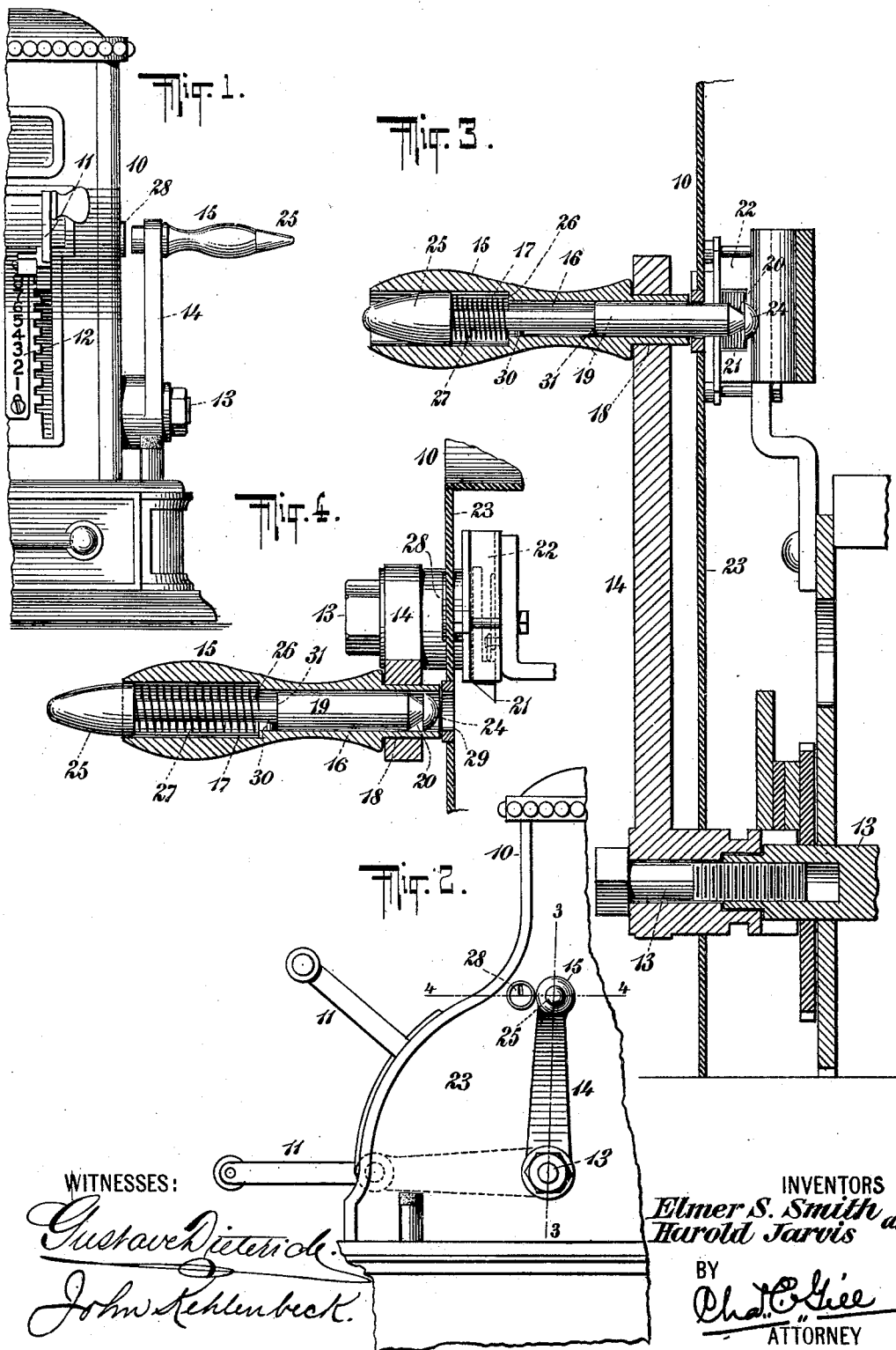
E. S. SMITH & H. JARVIS.

Patented July 9, 1901.

CASH REGISTER.

(Application filed Sept. 24, 1900.)

(No Model.)



WITNESSES:

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ELMER S. SMITH, OF BOUNDBROOK, NEW JERSEY, AND HAROLD JARVIS, OF BUFFALO, NEW YORK, ASSIGNORS TO THE IDEAL CASH REGISTER COMPANY, OF NEW BOUNDBROOK, NEW JERSEY.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 677,890, dated July 9, 1901.

Application filed September 24, 1900. Serial No. 30,950. (No model.)

To all whom it may concern:

Be it known that we, ELMER S. SMITH, a resident of Boundbrook, in the county of Somerset and State of New Jersey, and HAROLD JARVIS, a resident of Buffalo, in the county of Erie and State of New York, citizens of the United States, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification.

The invention relates to improvements in cash-registers, and more especially to an improvement in the class of cash-registers having an exposed operating crank-handle or lever connected with the main driving-shaft of the register mechanism.

Our invention pertains more particularly to means for locking the exposed operating crank-handle or lever in its normal position to prevent its operation at improper times; and the present invention relates to a structure embodying the register and the said exposed operating crank-handle or lever, together with means for conveniently and properly locking said handle against operation during such time as it may be desired that the register shall not be operated. In many places of business a number of cash-registers are employed, one cash-register being designated to each salesman, and under such condition should any one of the salesmen be temporarily absent he should for his own protection lock the exposed crank-handle or lever, so that his register during his absence may not be operated by any of the other salesmen. The present invention pertains, therefore, to the combination of parts embodying the locking means whereby the exposed crank or lever may at all proper times be locked against operation; and said invention consists in the novel features and combinations herein-after described, and more particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a front elevation of a portion of a cash-register constructed in accordance with and embodying the invention. Fig. 2 is an end view, partly broken away, of same. Fig. 3 is an enlarged vertical longitudinal section of same on the dotted line 3 3 of Fig. 2, and Fig. 4 is an enlarged horizontal section of same on the dotted line 4 4 of Fig. 2.

In the drawings, 10 designates the register-casing as a whole; 11, one of the hand setting-levers of known form and construction; 12, the line of numerals arranged from "0" to "9," inclusive, along which the lever 11 may be moved for the purpose of setting into operative relation the interior mechanism of the register; 13, the main driving-shaft for the interior mechanism of the register, and 14 the exposed crank or lever secured upon the said shaft 13 and by which the operator, after having set the interior mechanism by means of the lever or levers 11, will effect the proper registration. The crank or lever 14 has at its upper end a handle 15, which contains the interior tubular chambers 16 17, communicating with one another, as shown in Fig. 3, and forming a passage extending entirely through the length of said handle 15. The tubular recess 17 is at the outer end of the handle 15, and the recess or bore 16 is at the inner portion of said handle. The handle 15 at its inner end contains the hub 18, which extends through an aperture in the outer end of the crank or lever 14, as shown in Fig. 3, and by which said handle and said crank or lever become secured together at right angles to one another. The tubular recess or bore in the handle 15 extends entirely through the hub 18, and within this recess or bore 16 is placed the latch-rod 19, having at its inner end adjacent to the side of the register the annular recess 20, adapted to be engaged by the end of the spring latch-bolt 21, provided in the lock of usual construction, secured near the inner face of the side 23 of the register. The annular recess 20 is adjacent to the inner end of the rod 19 and has the inclined surfaces converging to the plain flat inner surface of the head 24, as shown in Fig. 4, the exposed end surfaces of said head 24 being rounded, as shown. The outer portion of the latch-rod 19 passes through the tubular recess 17 of the handle 15 and is provided upon its outer end with the head 25, between which and the annular shoulder 26, formed within the handle 15, is applied the coiled spring 27, whose tension is normally exerted to retain the latch-rod 19 in its outer position, (shown in Fig. 4,) said rod 19 when in such position having no

effect whatever in the way of locking the lever 14 in position. The head 25 at the outer end of the latch-rod 19 is tapered and when in its outer position serves to form a continuation of the surfaces of the handle 15, and thus not only does not disfigure the handle 15, but extends the same, and to that degree facilitates the employment of the latter. The handle 15 is thus chambered from end to end, being open at both ends, and contains the latch-rod 19 and spring 27, the said latch-rod having at its inner end the annular locking-groove 20 and head 24 and having at its outer end the head 25, the latter being adapted to pass within the recess 17 within the handle 15, as indicated in Fig. 3.

The side 23 of the register 10 has applied near its inner face the lock 22, whose key-hub 28 is exposed through an aperture in the said side 23, as shown in Fig. 2, and in line with the key-hub 28 of the lock 22 the register side 23 is provided with an aperture 29, which is in line with the center of the handle 15 when the latter and the crank or lever 14 are in their upper normal position, (shown in Figs. 2 and 3,) and, as shown in Fig. 4, the beveled outer engaging end of the lock-bolt 21 normally projects into the plane of the said aperture 29.

When it is not desired that the handle 15 and crank or lever 14 shall be locked against movement, the latch-rod 19 will be permitted to remain in its outward position, (shown in Fig. 4,) the inner end of said rod 19 being wholly concealed within the handle 15 and its hub 18, and when the latch-rod 19 is in its outer position, as shown in Fig. 4, the handle 15 and crank or lever 14 will be free to be operated at will—that is, moved from its normal vertical position (shown in full lines in Fig. 2) to its lower horizontal position (indicated by dotted lines in Fig. 2) and then back to its normal vertical position. When, however, it is desired to lock the crank or lever 14 against operation, the person in charge of the register will simply by pressing the thumb against the outer end of the head 25 push the latch-rod 19 inward until the head 24 at the inner end of said rod pressing against the inclined surface of the lock-bolt 21 drives the latter inward and passes the same, so that the edge of said bolt 21 may enter the annular groove 20 of said rod 19 and lock said rod 19 at its inward position (shown in Fig. 3) against the stress of the spring 27. When the latch-rod 19 is pushed inward by pressure applied at the outer end of the head 25, the beveled surfaces of the head 24 will meet the beveled surfaces of the lock-bolt 21, and the two beveled surfaces meeting one another the latch-rod 19 will move the lock-bolt 21 inward until the head 24 has passed beyond said bolt 21 and then the bolt 21 will in a usual manner spring outward and the edge of the bolt will enter the annular groove 20 of the latch-rod 19. The outer surface of the head 24 is

beveled or rounded off, as shown; but its inner surface is flat, and hence while the outer surface of the head 24 may succeed in pressing the bolt 21 inward when the rod 19 is pressed through the side of the register-casing it is plain that the spring 27, seeking to return the latch-rod 19 to its outward position, will be incapable of throwing the bolt 21 or of releasing the head 24 from said bolt. When, therefore, the latch-rod 19 is pressed inward within the handle 15 and its inner end is passed through the side of the register-casing and into engagement with the bolt 21, the said rod will be retained in such position by means of the bolt 21, and when in such position it is evident that the lever 14 and handle 15 will be locked against all movement. The unlocking of the handle 15 and crank or lever 14 will be accomplished by the insertion of the proper key through the key-hub 28 for the purpose of retracting the bolt 21 of the lock 22 into its casing and from the annular groove 20 of the latch-rod 19, and when this has been done the spring 27 in said handle 15 will project the said rod 19 outward to the position in which it is shown in Fig. 4. The latch-rod 19 when projected outward by means of the spring 27 will be prevented from moving unduly outward by means of a pin 30, located within the handle 15 in position to meet the annular shoulder 31, formed on the latch-rod 19. The invention is not limited to any special character of lock 22, the lock 22 shown being a usual spring-lock. In view of the fact that the latch-rod 19 is provided with an annular groove to receive the edge of the locking-bolt 21 it is immaterial whether the said rod 19 have an axial rotation within the handle 15, since said groove 20 will always be sufficient to receive the edge of the locking-bolt 21.

The latch-rod 19 not only prevents the operation of the crank or lever 14, but by means of the head 24 on said rod, in connection with the bolt 21, the said rod prevents the crank or handle 14 from being sprung outward in a direction from the side 23 of the casing 10, since the said head 24 on the rod 19, by reason of its engagement with the locking-bolt 21, serves to tie the upper end of the said crank or handle 14 in its proper vertical relation to the side 23 of the register. In instances in which a locking-bolt has heretofore been employed in the handle of the operating-crank of a cash-register the end of said bolt has simply projected through an opening in the side of the register-casing, and in such instances there is a liability of the handle or crank 14 being sprung outward to a sufficient extent to withdraw the end of the said bolt from the aperture in the side of the register. In the present instance it will be observed that the latch-rod 19 effectually ties the upper end of the crank or handle 14 to the lock-bolt 21, and hence the said rod 19 cannot be withdrawn from the aperture in

the side of the register until by the operation of the proper key the bolt 21 is retracted from its engagement with the said rod 19.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a cash-register, the driving-shaft and the exposed operating crank or lever connected with the said shaft and having a handle, combined with the lock-bolt within the register and accessible by means of a key from the exterior side of the register, and the latch-rod within said handle and adapted when pressed inward through the side of the register to engage said lock-bolt, for the purpose of locking said lever against operation until said bolt is manually freed from said rod; substantially as set forth.

2. In a cash-register, the driving-shaft, and the exposed operating crank or lever connected with the said shaft and having a handle, combined with the spring lock-bolt within the register and accessible by means of a key from the exterior side of the register, the register-casing having an opening in its side, and the latch-rod within said handle and adapted when pressed inward through the said opening in said casing to move against said spring lock-bolt and be automatically engaged thereby, for the purpose of locking said lever against operation until said bolt is manually freed from said rod; substantially as set forth.

3. In a cash-register, the driving-shaft, the exposed operating crank or lever connected with the said shaft and having a handle, the register-casing having an opening in its side, the latch-rod within said handle and adapted to be pressed through said opening in the side of the said casing, and the spring within said handle and adapted to exert its force to maintain said rod clear of said opening, the inner end of said rod having a recess, combined with the lock-bolt within the register and adapted to engage the said recess at the inner end of said rod when the latter is pressed inward, said lock-bolt being accessible by means of a key from the exterior side of the register; substantially as set forth.

4. In a cash-register, the driving-shaft, the exposed operating crank or lever connected with the said shaft and having a handle, the register-casing having an opening in its side, the latch-rod within said handle and adapted to be pressed through said opening in the side of said casing, and the spring within said handle and adapted to exert its force to maintain said rod clear of said opening, the inner end of said rod having the recess and beveled head, combined with the spring lock-bolt within the register and having the beveled edge in the line of said opening to be engaged by the beveled head on said rod when the latter is pressed inward to secure the engagement of said recess and said bolt, said lock-bolt being accessible by means of a key from the exterior side of the register; substantially as set forth.

5. In a cash-register, the driving-shaft, the exposed operating crank or lever connected with the said shaft and having a handle, the register-casing having an opening in its side, the latch-rod within said handle and adapted to be pressed through said opening in the side of said casing, and the spring within said handle and adapted to exert its force to maintain said rod clear of said opening, the inner end of said rod having the annular recess and head, combined with the lock-bolt within the register and adapted to engage the said recess when said rod is pressed inward, said lock-bolt being accessible by means of a key from the exterior side of the register; substantially as set forth.

6. In a cash-register, the driving-shaft, the exposed operating crank or lever connected with the said shaft and having the handle, the register-casing having an opening in its side, the latch-rod within said handle and adapted to be pressed through said opening in the side of said casing, and the spring within said handle and adapted to exert its force to maintain said rod clear of said opening, said handle having the tubular chambers 16, 17, and said rod having at its inner end the locking or engaging recess 20 and at its outer end the head 25 adapted to be pressed into said chamber 17, which contains said spring, combined with the lock-bolt within the register and adapted to engage the said recess 20 when said rod is pressed inward, said lock-bolt being accessible by means of a key from the exterior side of the register; substantially as set forth.

7. In a cash-register, the driving-shaft, the exposed operating crank or lever connected with said shaft and having a handle, the register-casing having an opening in its side, and the latch-rod extending within and being normally greater in length than said handle and adapted to be pressed through said opening in the side of said casing, and the spring within said handle for pressing said rod outward, the inner end of said rod having the recess 20 and head 24, combined with the lock-bolt within the register and adapted to be contacted with by said head 24 and to engage the said recess 20 when said rod is pressed inward, said lock-bolt being accessible by means of a key from the exterior side of the register; substantially as set forth.

Signed by the said ELMER S. SMITH, at the city of New York, in the State of New York, the 20th day of September, 1900, and by the said HAROLD JARVIS, at the city of Buffalo, in said State, the 21st day of September, 1900.

ELMER S. SMITH.
HAROLD JARVIS.

Witnesses to signature of Elmer S. Smith:

CHAS. C. GILL,
GEORGE ISAKSEN.

Witnesses to signature of Harold Jarvis:

GEO. KARBACH,
E. J. SAUER.