H. KONERMAN.

AUTOGRAPHIC REGISTER.

APPLICATION FILED MAR. 20, 1915.

1,166,995. Patented Jan. 4, 1916.

Fig. 1.

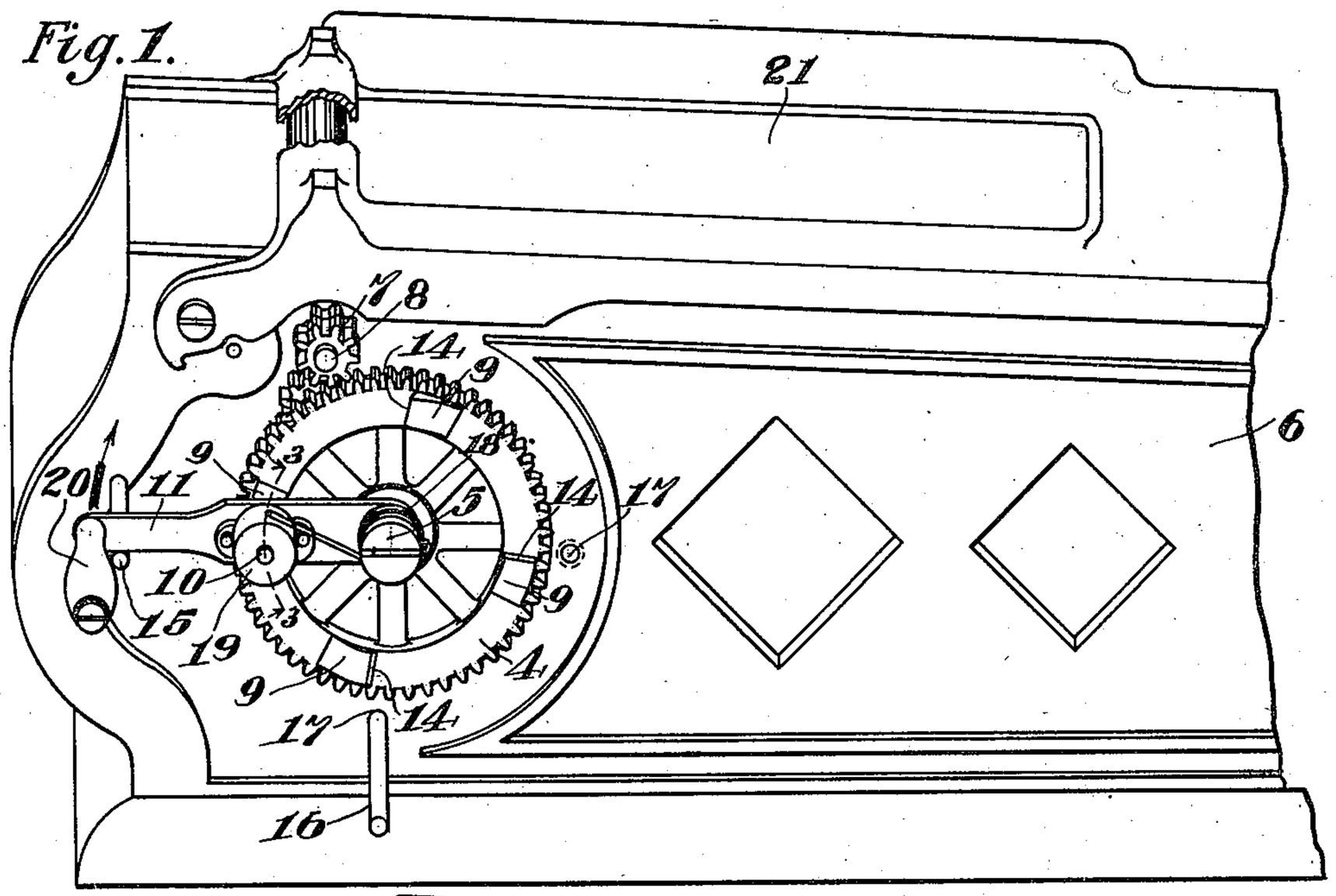

Fig. 2.

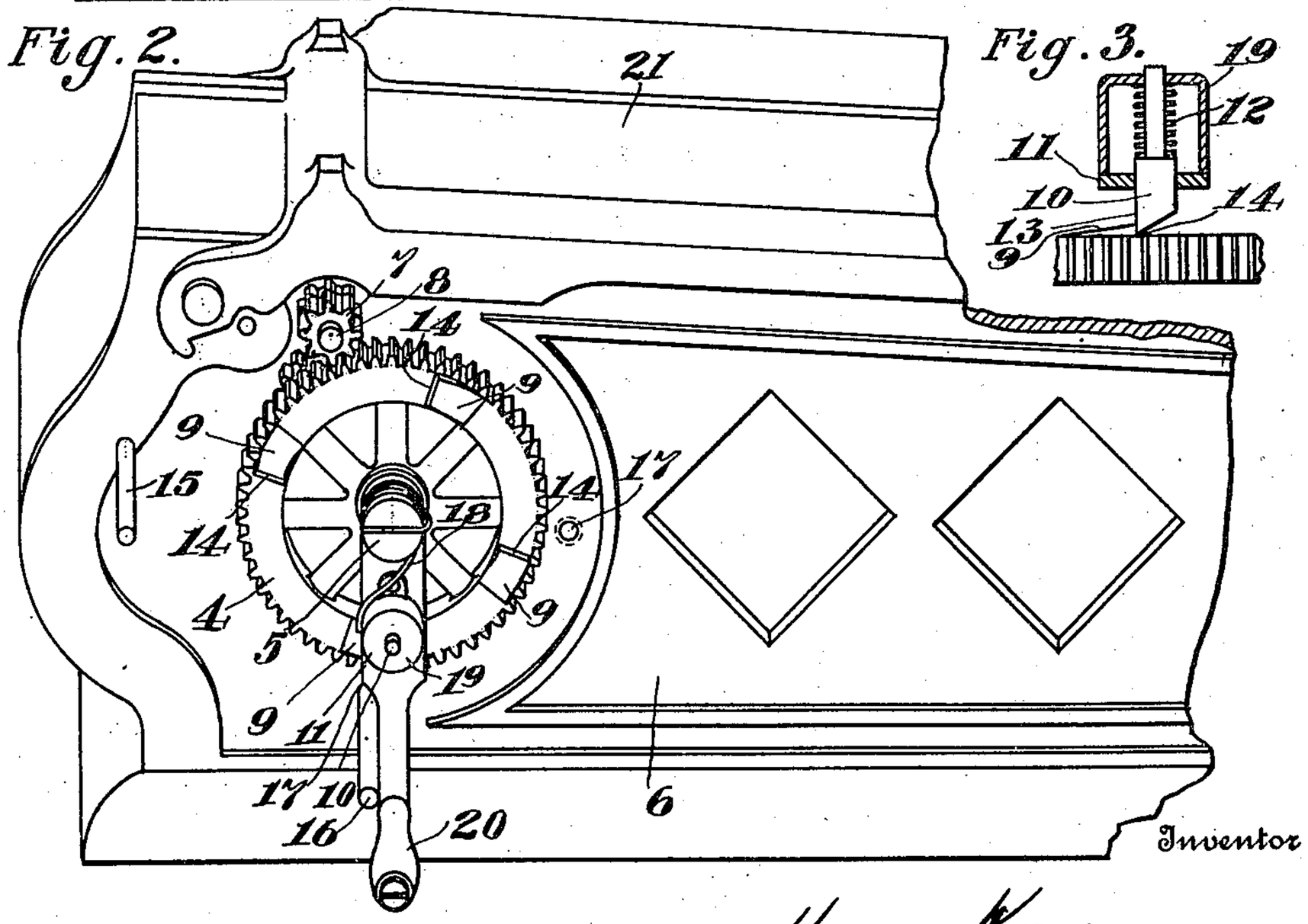

Fig. 3.

Witnesses
G. Garland Brown.
W. Thornton Bogert

Inventor
Harry Konerman

By Walter F. Murray
Attorney

UNITED STATES PATENT OFFICE.

HARRY KONERMAN, OF NEWPORT, KENTUCKY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE GLOBE AUTOGRAPHIC REGISTER COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

AUTOGRAPHIC REGISTER.

1,166,995. Specification of Letters Patent. Patented Jan. 4, 1916.

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To all whom it may concern:

Be it known that I, HARRY KONERMAN, a citizen of the United States of America, and resident of Newport, county of Campbell, State of Kentucky, have invented certain new and useful Improvements in Autographic Registers, of which the following is a specification.

This invention relates to improvements in autographic registers and particularly to improvements in the feed mechanisms thereof.

An object of my invention is to produce an improved feed mechanism for autographic registers in which the operating portions of the feed mechanism are automatically restored to their normal position after operation of the mechanism by the user of the machine.

A further object is to produce an improved feed mechanism for autographic registers which may be regulated to automatically extract sales tickets of predetermined lengths from the register.

These and other objects are attained in the feed mechanism described in the following specification and illustrated in the accompanying drawings, in which;

Figure 1 is a fragmental perspective view of an autographic register having feed mechanism embodying my invention and showing the mechanism in its normal inoperative position. Fig. 2 is a view similar to Fig. 1, but illustrating the feed mechanism in the position it occupies after having been operated to withdraw a sales slip from the register. Fig. 3 is a fragmental sectional view taken on the line 3—3 of Fig. 1.

The feed mechanism embodying my invention consists of a gear wheel 4 rotatively mounted on a stud 5 extending from one side frame member 6 of the machine, and a pinion 7 which is operatively connected with the gear wheel and is secured to a shaft 8 to which a feed roll of the machine is operatively connected. The gear 4 is provided with ratchet teeth 9 which are adapted to be engaged by a pawl 10, see Fig. 3, which is in turn mounted on an operating lever 11 rotatively mounted on the stud 5. This pawl 10 is reciprocally mounted in the operating lever 11 and is normally spring pressed by a coil spring 12, into engagement with any one of the ratchet teeth 9. In Fig. 3 it will be seen that the end of the pawl which is in engagement with the teeth is inclined at an angle to the face of the gear and is adapted to ride upon the inclined surface of the teeth 9 in one direction and to have the straight face 13 of the pawl abut the straight face 14 of each of the ratchet teeth. The lever 11 is adapted to move in the arc of a circle, between stops 15 and 16 which are mounted in the side frame member 6 of the register casing. These stops, and particularly the stop 16 is adapted to be secured in apertures 17 spaced predetermined distances about the gear 4 for the purpose of permitting the pins to be placed in the different apertures and thereby limiting the motion of the lever 11 to in turn limit the length of the sales slip or ticket delivered from the register. In its normal position the lever is in engagement with the stop 15, as shown in Fig. 1, and the respective straight faces of the pawl 10 and ratchet tooth 9 are in engagement with one another. When however, the lever is moved to the position shown in Fig. 2, the gear 4 is rotated through the arc of the circle extending from stop 15 to stop 16, in the direction of the arrow, and the sales slip is withdrawn from the register because of the operative connection of the feed roll gear 7 with the ratchet gear 4. When the lever 11 has been brought to this position in engagement with stop 16, the operator does not have to return the lever to its normal position, since a spring 18 which is mounted upon the stud shaft 5 and which operates against the boss 19 in which the pawl 10 is reciprocally mounted, operates to return the lever to the position shown in Fig. 1. A handle 20 is provided for conveniently operating the lever 11.

In the operation of my improved feed mechanism the operator makes out the sales slip by writing upon the slip located upon the table 21 of the machine as in the ordinary manner and after the slip has been completed he grasps the handle 20 and rotates the gear 4 thereby rotating the feed roll through the agency of the pinion 7. The gear 4 is rotated by the lever 11 through its operative connection by means of the pawl 10 in engagement with the ratchet teeth 9. After the sales slip has been ex-

tended by the operation of the mechanism and the lever 11 has been brought into engagement with the stop 16 the operator releases the handle 20 thereby permitting the spring 18 to return the lever to its normal position in engagement with the stop 15. In this movement the pawl 10 rides over the inclined faces of the teeth 9 and finally permits the straight face 13 of the pawl 10 to be dropped into engagement with the straight face 14 of the tooth 9. It will be seen that the location of the ratchet teeth 9 is such that when the lever 11 is brought into engagement with its stopping pin 16, the pawl 10 and one of the teeth 9 will be properly registered with one another upon return of the lever 11 to its normal position in engagement with the stop pin 15. This is true for any position of the pin 16 in its apertures 17 when it is desired to decrease or increase the length of the sales slip. It will be seen that by eliminating the stop pin 16 and by moving the lever 11 in a substantially complete circle against the under side of the pin 15, the maximum length of the sales slip will be extended from the register.

Sales slips printed to correspond with the various distances in which the mechanism will operate when the pin 16 is located in the desired one of the apertures 17, will be furnished. In addition to this I contemplate spacing the ratchet teeth 9 a sufficient distance apart as shown in the drawings, so that in case the operating lever 11 should be accidentally moved a slight distance to rotate the feed mechanism, the lever may be permitted to drop back into engagement with its stop pin 15, without having the pawl 10 drop into engagement with the next adjacent ratchet tooth 9. In this manner the sales slip will not be withdrawn upon subsequent operation of the register until the pawl engages the ratchet tooth which has been moved slightly during the accidental movement of the operating lever. If however, the feed mechanism has been accidentally operated a sufficient distance to move the adjacent ratchet tooth 9 into such a position that the pawl 10 will operatively connect therewith upon return of the lever 11 to its normal position, the operator may respace the sales ticket by moving the mechanism by means of the lever until the remainder of the length of the sales ticket which has been partially extracted, is withdrawn from the machine. At this point the operator releases the handle 20 to permit the lever to drop back against its stop pin 15 and thereby permitting the pawl 10 to drop into engagement with the proper one of the ratchet teeth 9 in position to start a new sales ticket.

Having thus described my invention, what I claim is;

1. In combination in a feed mechanism for autographic registers, a feed roll, a gear for operating the feed roll, ratchet teeth secured at distances apart on the gear, a pawl located adjacent to the gear engaging with the ratchet teeth to rotate the gear, and a lever carrying the pawl and mounted to move concentrically with the gear.

2. A feed mechanism for autographic registers comprising a feed roll, a gear for operating the feed roll, ratchet teeth spaced apart on the gear, a lever rotatively mounted with relation to the gear, a pawl mounted on the lever and engaging with the ratchet teeth to operate the gear, and an adjustable stop for limiting the motion of the lever.

3. A feed mechanism for autographic registers, comprising a feed roll, a pinion mounted on the feed roll, a gear located adjacent to and in mesh with the pinion, ratchet teeth located on the gear, an operating lever located adjacent to and rotatively mounted with relation to the gear, means for returning the lever to its normal position after movement thereof, a pawl mounted on the lever for engaging the ratchet teeth when the lever is operated, and an adjustable stop for limiting the motion of the lever.

4. In an autographic register the combination of a feed roll, a gear for operating the feed roll, ratchet teeth secured at distances apart on the gear, a pawl located adjacent to the gear engaging with the ratchet teeth, and a lever for carrying the pawl and mounted to move concentrically with the gear, said pawl and said teeth having straight faces for abutting one another to move the gear upon operative movement of the lever, and having inclined faces for permitting the pawl to ride over the teeth upon return movement of the lever.

5. In combination in a feed mechanism for autographic registers, a feed roll, a gear operatively connected with the feed roll, ratchet teeth spaced apart on the gear, a lever rotatively mounted adjacent to the gear, a pawl mounted on the lever to engage the teeth to rotate the gear when the lever is moved in one direction, means for returning the lever to its normal position, and an adjustable stop for limiting the motion of the lever.

In testimony whereof, I have hereunto subscribed my name this 17th day of March, 1915.

HARRY KONERMAN.

Witnesses:
A. KASSON,
W. THORNTON BOGERT.