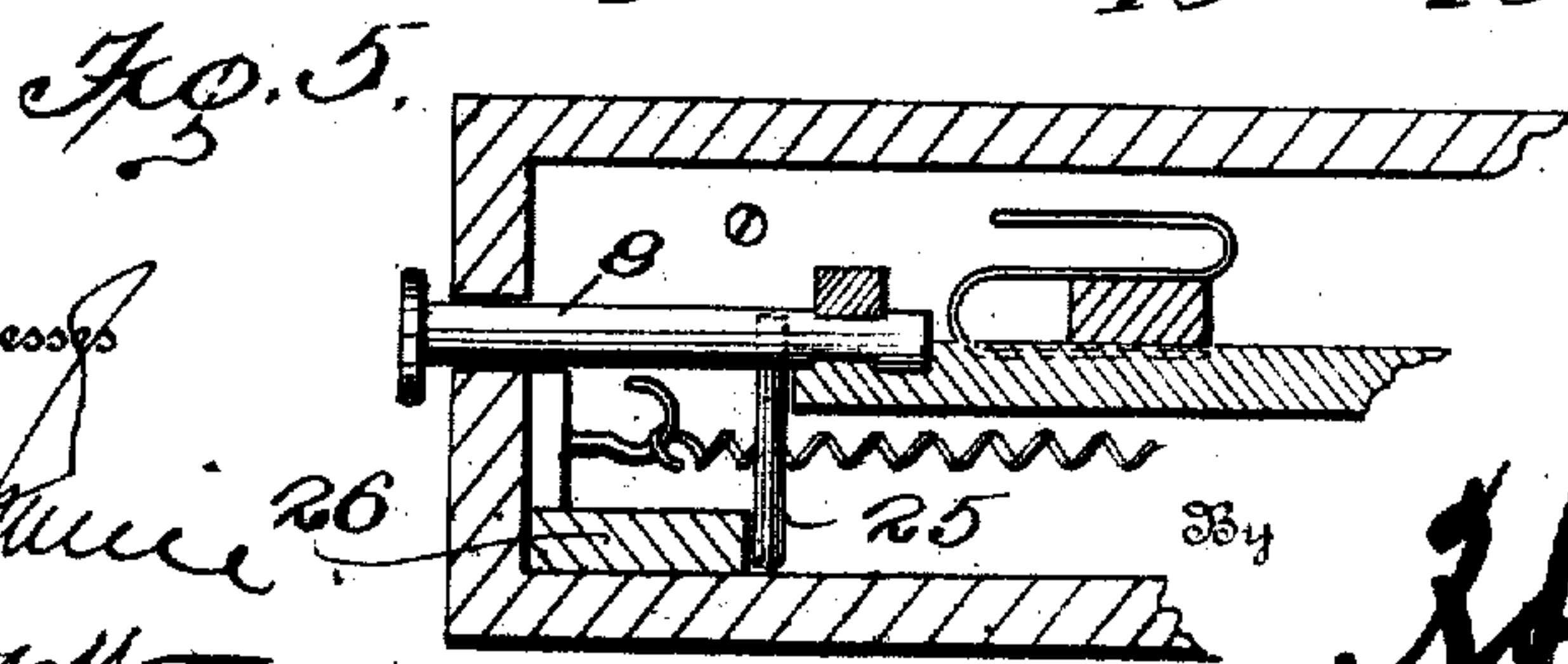
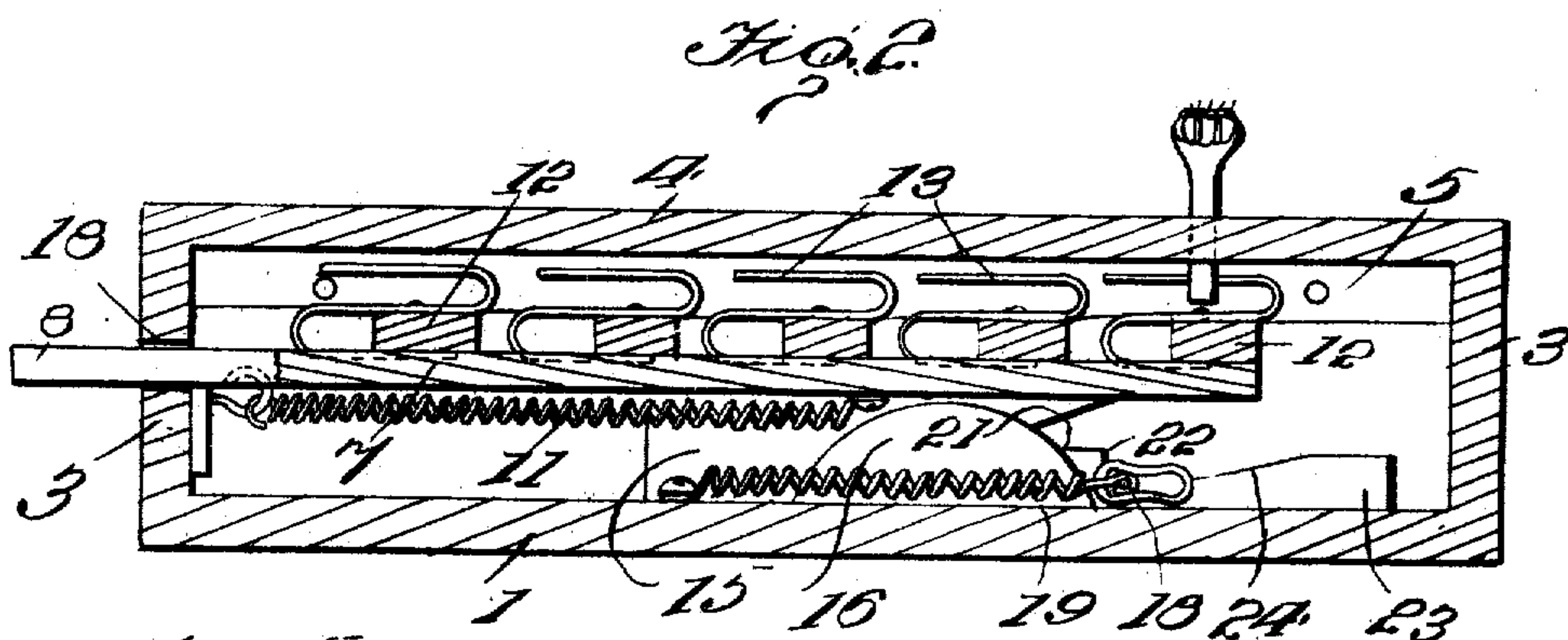
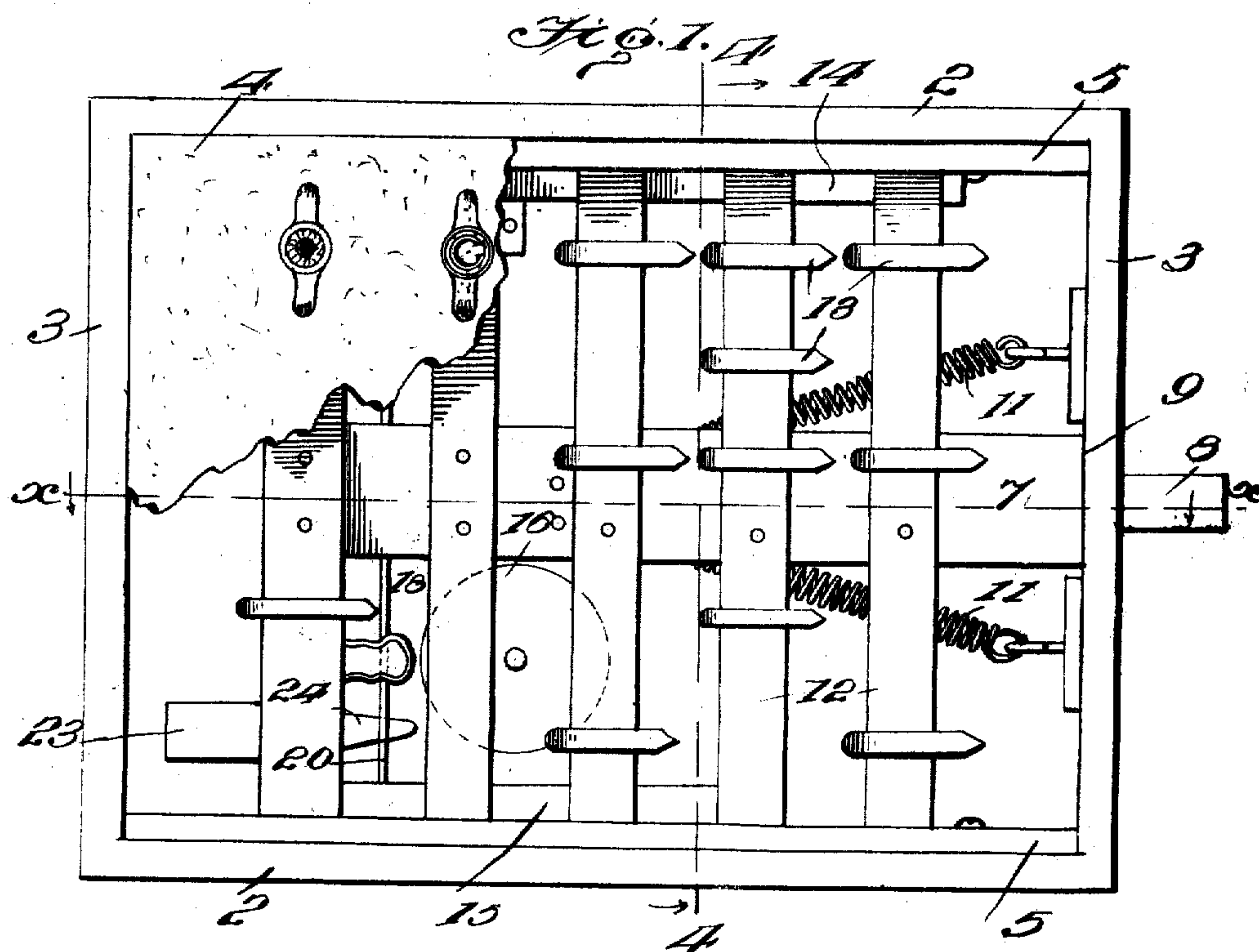


C. E. FOWLER.
SAFETY RING TRAY.
APPLICATION FILED JULY 10, 1908.

914,563.

Patented Mar. 9, 1909.
2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3.

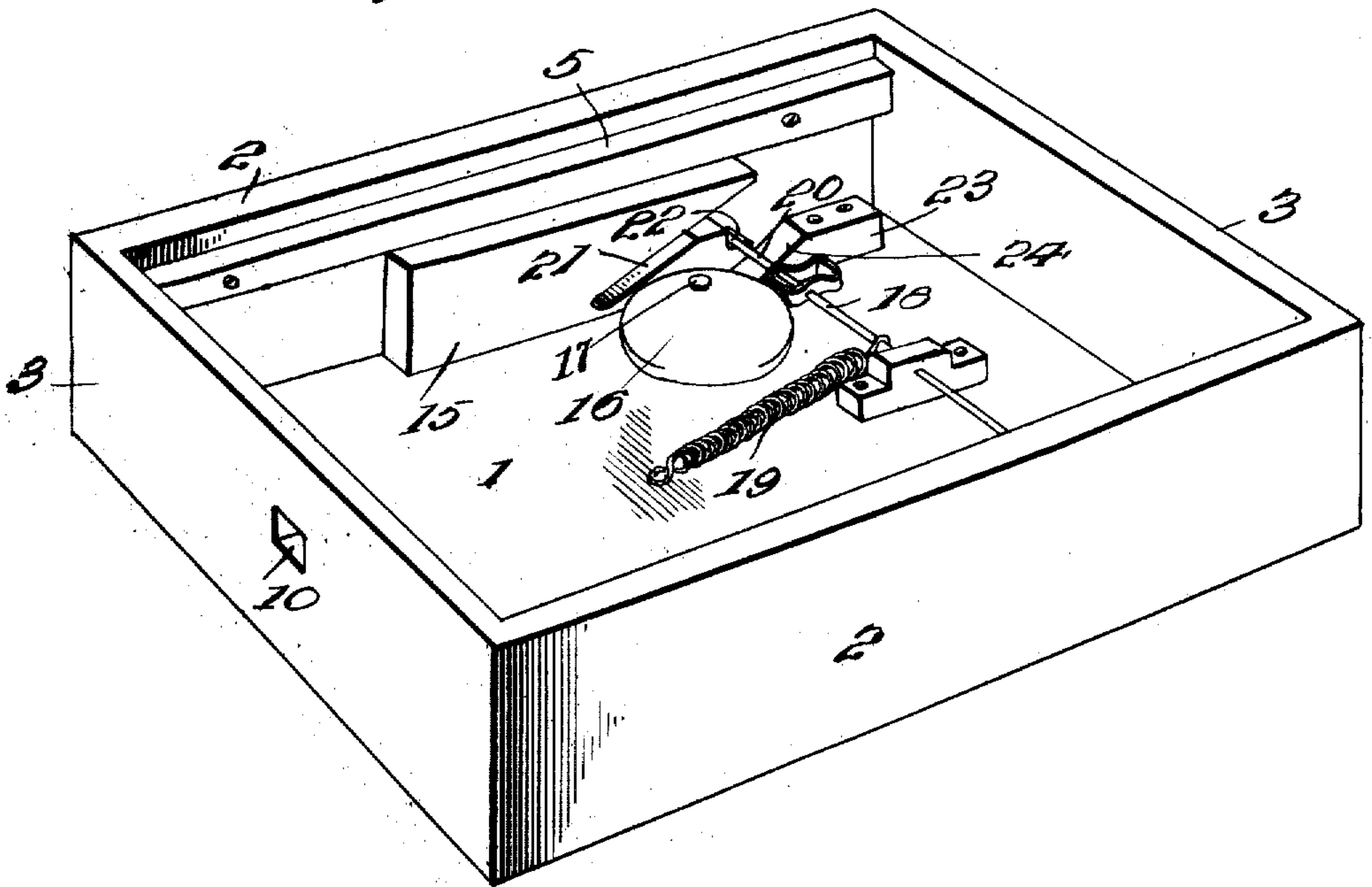
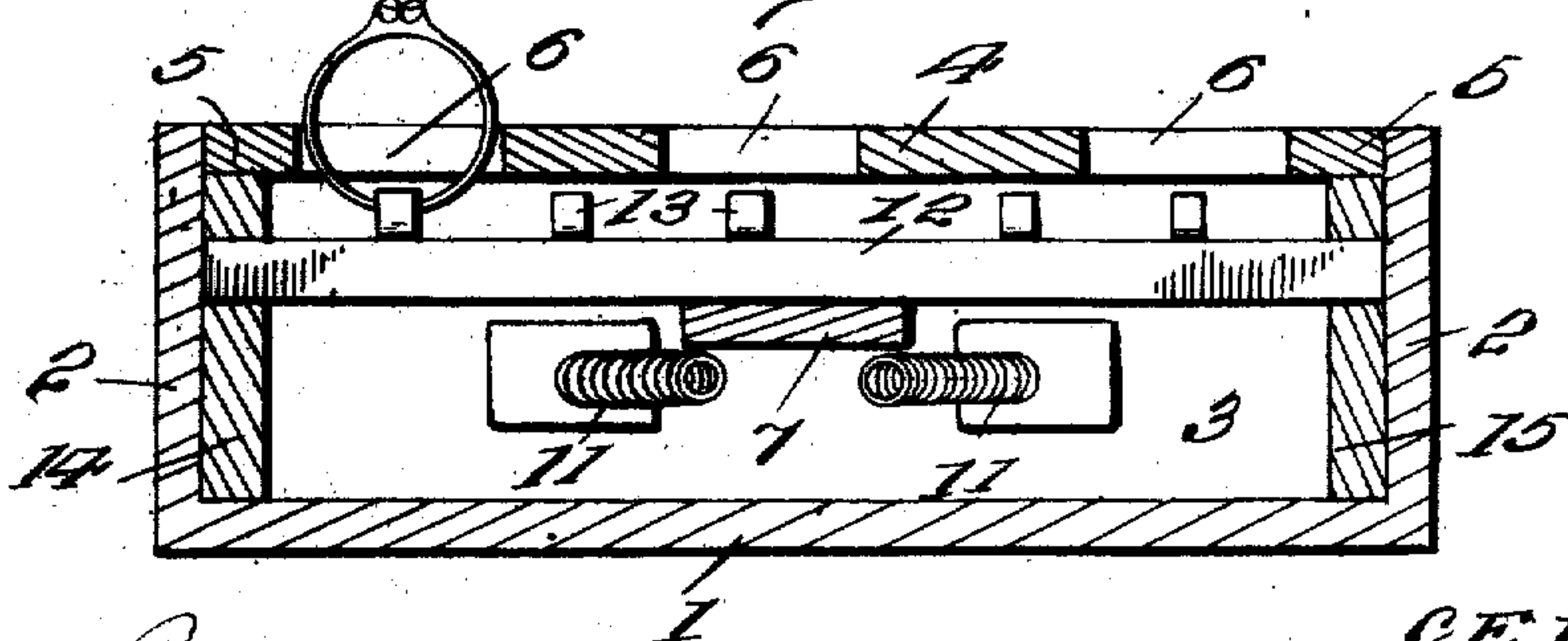


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES E. FOWLER, OF CHICAGO, ILLINOIS.

SAFETY RING-TRAY.

No. 914,563.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed July 10, 1908. Serial No. 442,967

To all whom it may concern:

Be it known that I, CHARLES E. FOWLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety Ring-Trays, of which the following is a specification.

This invention comprehends certain new and useful improvements in trays of that type designed for displaying rings in jewelry stores, and the object of the invention is an improved device of this character which embodies peculiar means for effectually securing the rings in position in the tray, thus protecting the jeweler from theft by preventing an unscrupulous customer from conveniently and secretly removing one of the rings from the tray when the salesman's back is turned, and also relieving the customer from temptation by eliminating the chances of successfully abstracting a ring from the tray. And a further object of the invention is an improved tray from which the rings may be readily and simultaneously released, and which is arranged to automatically sound an alarm upon the releasing of the rings, thereby notifying the salesman of any attempted pilfering, and thus rendering possible the apprehension of the thief.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe, and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a top plan view of my improved ring tray with the top of the tray partly broken away; Fig. 2 is a longitudinal section thereof on the line $x-x$ of Fig. 1; Fig. 3 is a perspective view with the top and locking element removed; Fig. 4 is a transverse section on the line $4-4$ of Fig. 1; and, Fig. 5 is a detail view in section, showing the means for sustaining the locking member in an inoperative position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

My improved tray consists of a bottom 1,

sides 2, ends 3 and a top 4 mounted within the tray in spaced relation to the bottom 1 and preferably supported upon longitudinal cleats 5 secured to the opposing faces of the sides 2. The top 4 is formed with corresponding longitudinal series of transverse slots 6 that are designed to receive and support the rings with a portion thereof extending downwardly below the lower face of the top, as shown.

A locking member is slidably mounted within the tray between the bottom 1 and the top 4, and embodies, in the present instance, a centrally disposed longitudinal bar 7, one end of which is normally held in spaced relation to the adjacent end of the tray, and the other end of which is reduced to form a plunger 8 and outwardly facing shoulders 9. The reduced end of the bar or plunger projects outwardly through an opening 10 in the corresponding end 3, and the outwardly facing shoulders 9 constitute stops which are arranged to limit the movement of the locking member in one direction and which are normally held against the adjacent end 3 by means of contractile springs 11 secured to the same and to the bar. The locking member also embodies a plurality of cross bars 12 which are secured to the longitudinal bar 7 near their middle points, and which, in the normal position of the locking member, are positioned below and in spaced relation to the corresponding slots 6 of the series, hooks 13 being rigidly secured to the cross bars below the respective slots 6 and normally extending across such slots and engaging the downwardly projecting portions of the rings so as to prevent the abstraction of the rings from the tray, said hooks also facing the end of the tray from which the locking element is normally spaced. In order to slidably support the locking member within the tray and above the bottom 1, the cross bars 12 rest at one end upon a block 14 which is secured to one side 2 of the tray in spaced relation to the corresponding cleat 5 and which coacts with the latter to form a longitudinal guideway in which the cross bars are mounted. A corresponding block 15 is carried by the cross bars at their other ends and is rigidly secured thereto, so as to be arranged to move longitudinally with the locking element.

In order to sound the alarm upon releasing the rings, a bell 16 is mounted within the tray

and supported on a suitable post 17 projecting upwardly from the bottom 1. This bell is arranged to be sounded by a transversely disposed spring hammer 18 that is normally held with its head against the bell, by means of a tension spring 19, and that is extended beyond its head, as shown, with its extended portion 20 mounted in a longitudinal slot 21 formed in the block 15. This slot is formed in its lower wall at an intermediate point with an offset portion that constitutes an outwardly facing shoulder 22 in front of which the extended end of the hammer is normally positioned, a trip block 23 being secured to the bottom with one end inclined as indicated at 24, and positioned below the extended portion of the hammer between the head of the same and the block 15.

In the practical use of my improved safety tray, in order to release the rings to permit their removal from the tray, the reduced end 8 or plunger of the bar 7 is pressed so as to move the locking member within the tray against the tension of the contractile springs 11, thereby obviously disengaging the hooks 13 from the inwardly projecting portions of the rings, and permitting the same to be removed from their respective slots 6. The movement of the locking member moves the block 15 longitudinally, as the latter is rigidly connected to the cross bars, and thus moves the shoulder 22 against the extended portion 20 of the hammer, to bear against the latter and retract the same. The continued movement of the hammer causes its extended portion 20 to bear against and ride upwardly upon the inclined end 24 of the trip block 23, thereby raising the hammer and thus disengaging the extended portion from the shoulder 22 to release the hammer and permit the same to strike the bell and sound the alarm.

From the above description, in connection with the accompanying drawings, it will be apparent that I have provided a very simple, durable and efficient construction of ring tray which embodies peculiar means for effectually securing the rings in position therein, from which the rings may be conveniently and simultaneously released, which automatically sounds an alarm upon the releasing of the rings, so as to notify the salesman of the same, and which consists of comparatively few parts that may be easily and cheaply manufactured and readily assembled.

In another embodiment of the invention, as clearly illustrated in Fig. 5, the plunger is formed separate from the locking bar and is rotatably secured thereto and provided with a radially extending pin 25 which is adapted to be moved downwardly below the locking member upon the partial rotation of the plunger after the locking member has been moved to assume an inoperative posi-

tion, and which is arranged to abut against or otherwise suitably engage with a keeper block 26, so as to sustain the locking member in such inoperative position without the necessity of continued pressure upon the plunger, and thus afford the salesman or clerk the use of both hands in filling the ring tray, to permit the same to be accomplished with the usual facility.

Having thus described the invention, what I claim is:

1. A safety tray adapted to receive a ring, a locking element carried by the tray and arranged to engage the ring to secure the same to the tray, means for disengaging such locking element from the ring, and means for automatically sounding an alarm upon the disengagement of the locking element.

2. A safety tray adapted to receive a ring, a locking element carried by the tray and arranged to engage with the ring to secure the same to the tray, means for disengaging such locking element from the ring, a bell carried by the tray, a hammer also carried by the tray and arranged to strike the bell, and means for automatically retracting the hammer and releasing the same upon the disengagement of the locking element from the ring.

3. A safety tray formed with a ring-receiving opening, a locking element slidably mounted within the tray across the opening, means for moving the locking element away from the opening, a bell carried by the tray, a hammer also carried by the tray and arranged to strike the bell, a block rigid with the locking element and formed with a slot in which the hammer is mounted, said slot being provided intermediate of its ends with a shoulder arranged to engage the hammer and retract the same upon the movement of the locking element away from the opening, and means for releasing the hammer to permit the same to strike the bell.

4. A safety tray formed with a ring-receiving opening, a locking element slidably mounted within the tray across the opening, means for moving the locking element away from the opening, a bell carried by the tray, a hammer also carried by the tray and arranged to strike the bell, a block rigid with the locking element and formed with a slot in which the hammer is mounted, said slot being provided intermediate of its ends with a shoulder arranged to engage the hammer and retract the same upon the movement of the locking element away from the opening, and a trip block secured to the tray and having an inclined end upon which the hammer is designed to ride, whereby to raise the hammer and disengage the same from the shoulder to permit the hammer to strike the bell.

5. A safety tray formed with a ring-receiving opening and with a second opening

extending through one end thereof, a locking member shorter than the tray and movably mounted within the same with one end normally spring-pressed against one end of the tray, a plunger rotatably secured to said
5 end of the locking member and projecting outwardly through the opening in the end of the tray, a hook carried by the locking member and normally extending across the ring-receiving opening, said plunger being provided with a pin, and a keeper block mounted

within the tray and arranged to be engaged by the pin to sustain the locking member in an inoperative position against the tension of the spring.

In testimony whereof I affix my signature
15 in presence of two witnesses.

CHARLES E. FOWLER. [L. S.]

Witnesses:

NORA BREITWEISER,
ELIZABETH FOWLER.