

(No Model.)

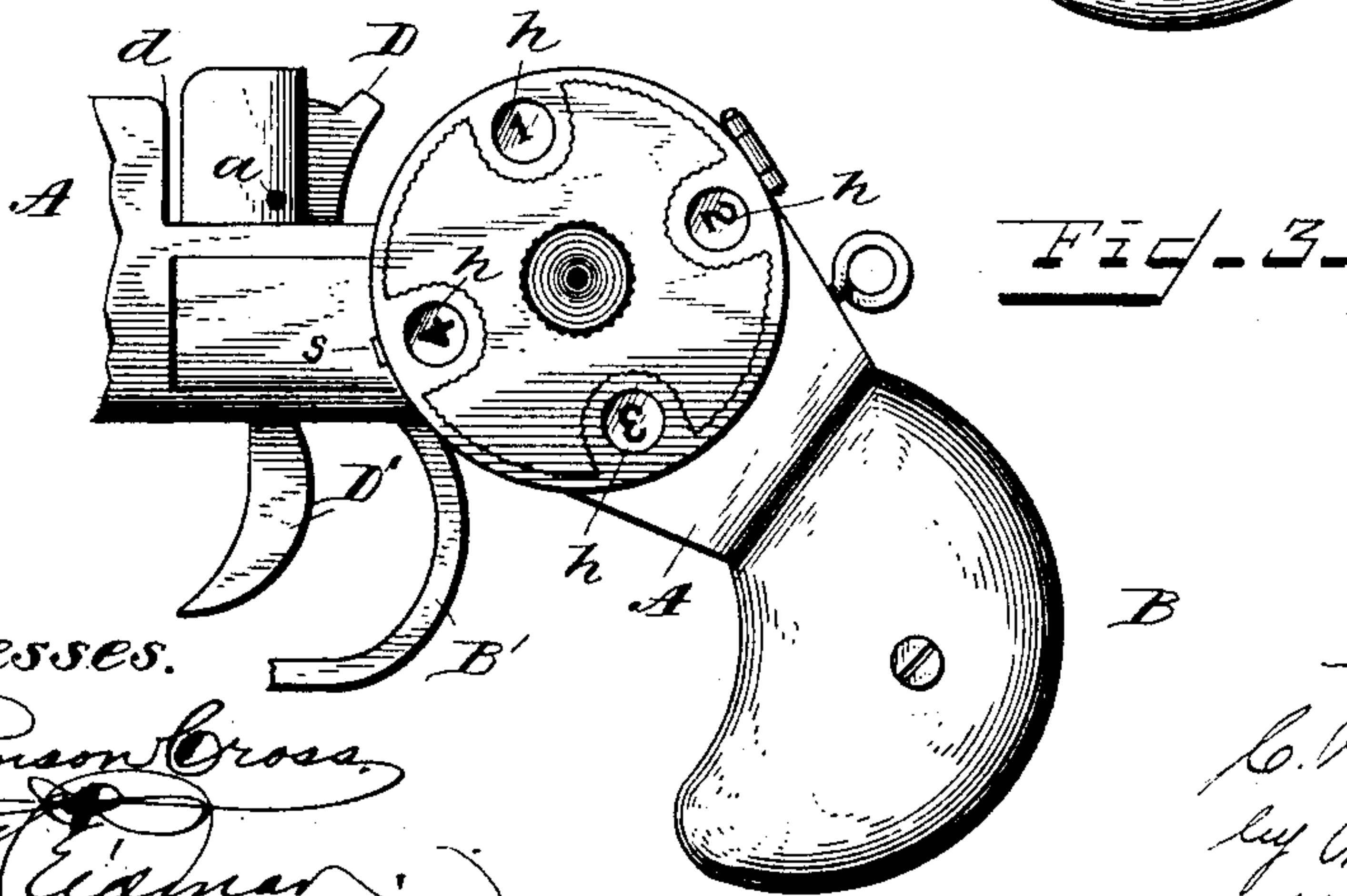
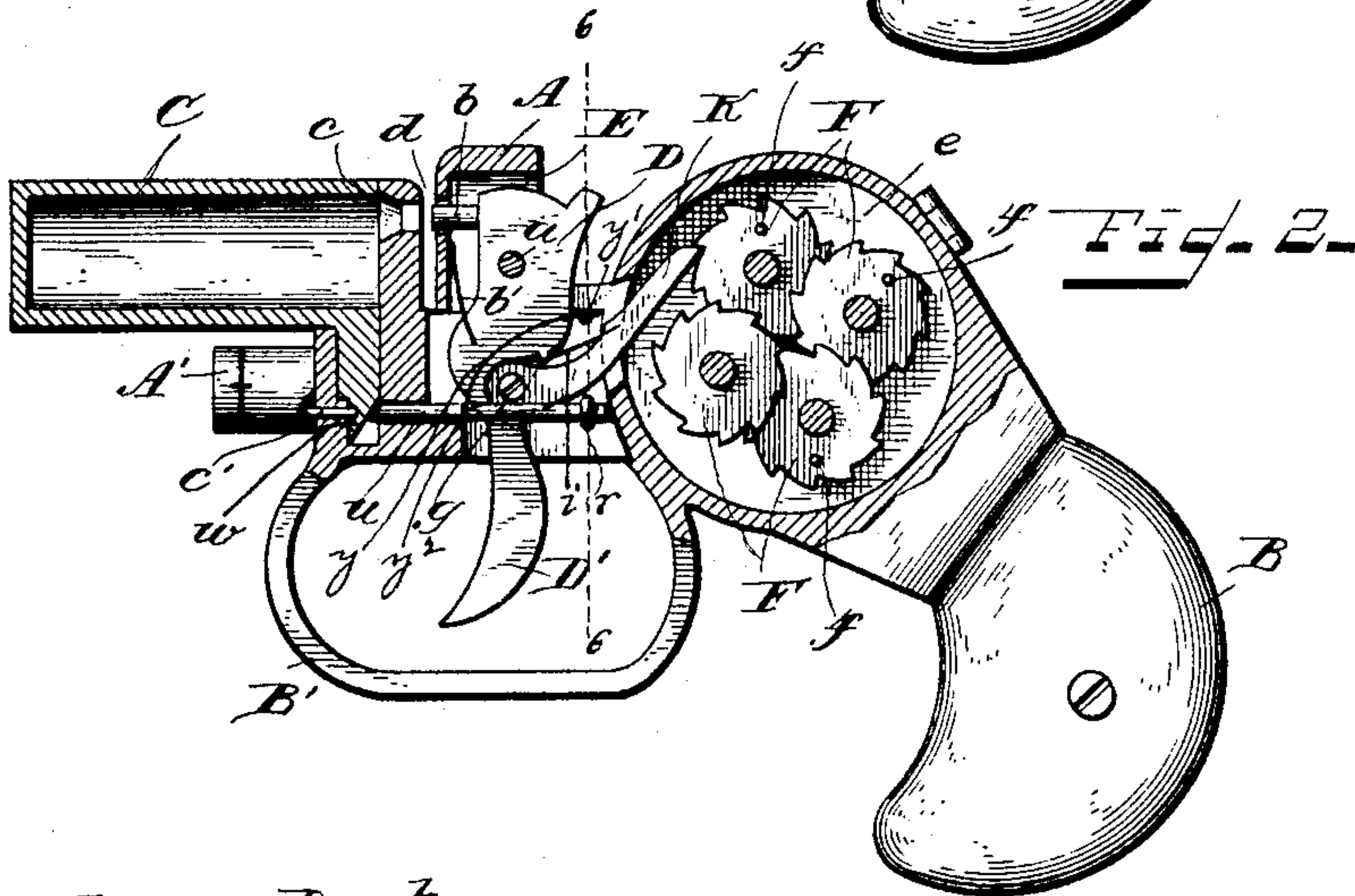
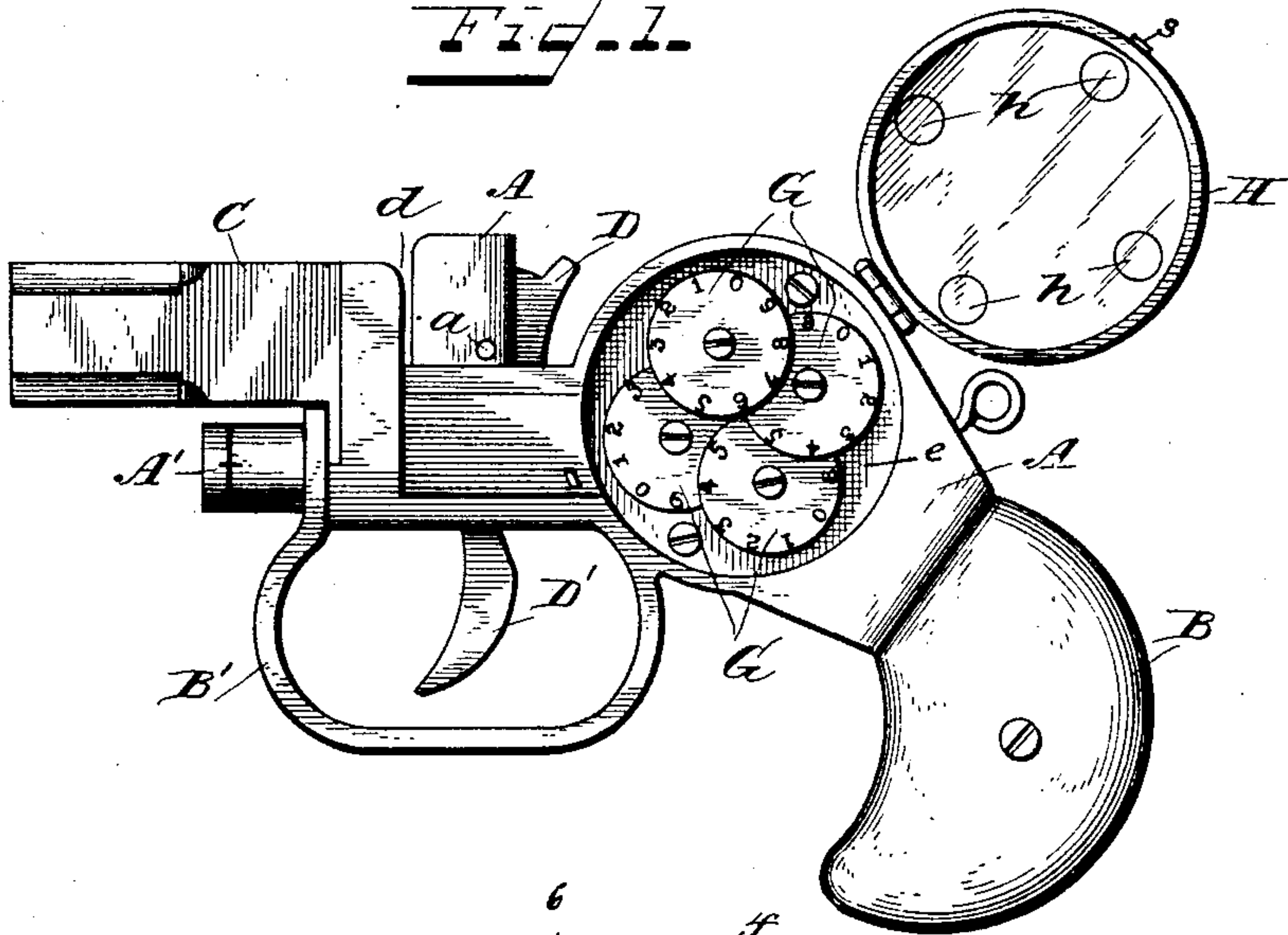
2 Sheets—Sheet 1.

C. H. FOLGER.  
FARE REGISTERING PUNCH.

No. 465,256.

Patented Dec. 15, 1891.

Fig. 1.



Witnesses.

*J. Thomson Cross,*  
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Inventor.

*C. H. Folger,*  
*by Anthony Skell*  
*his Attorney.*

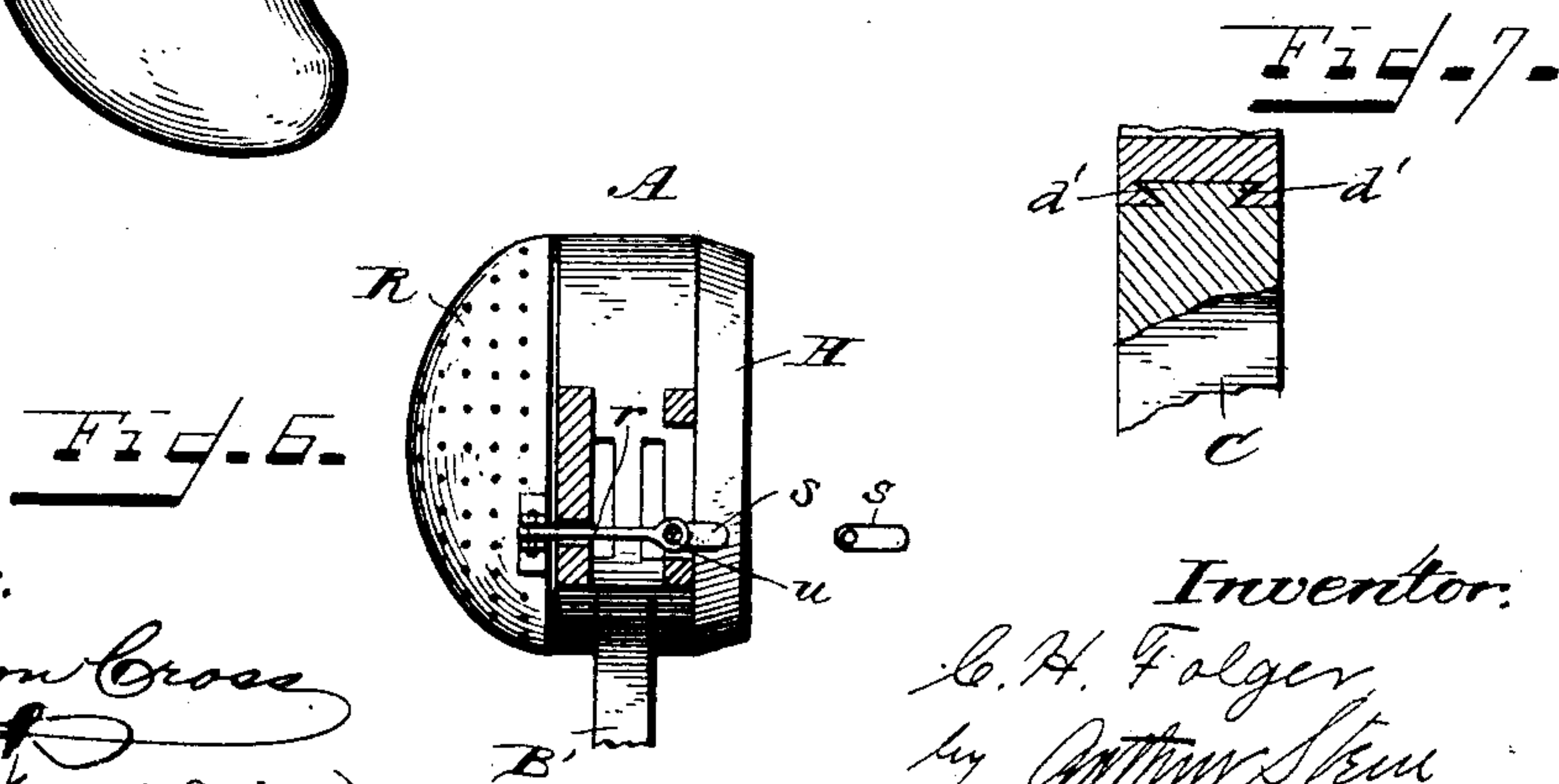
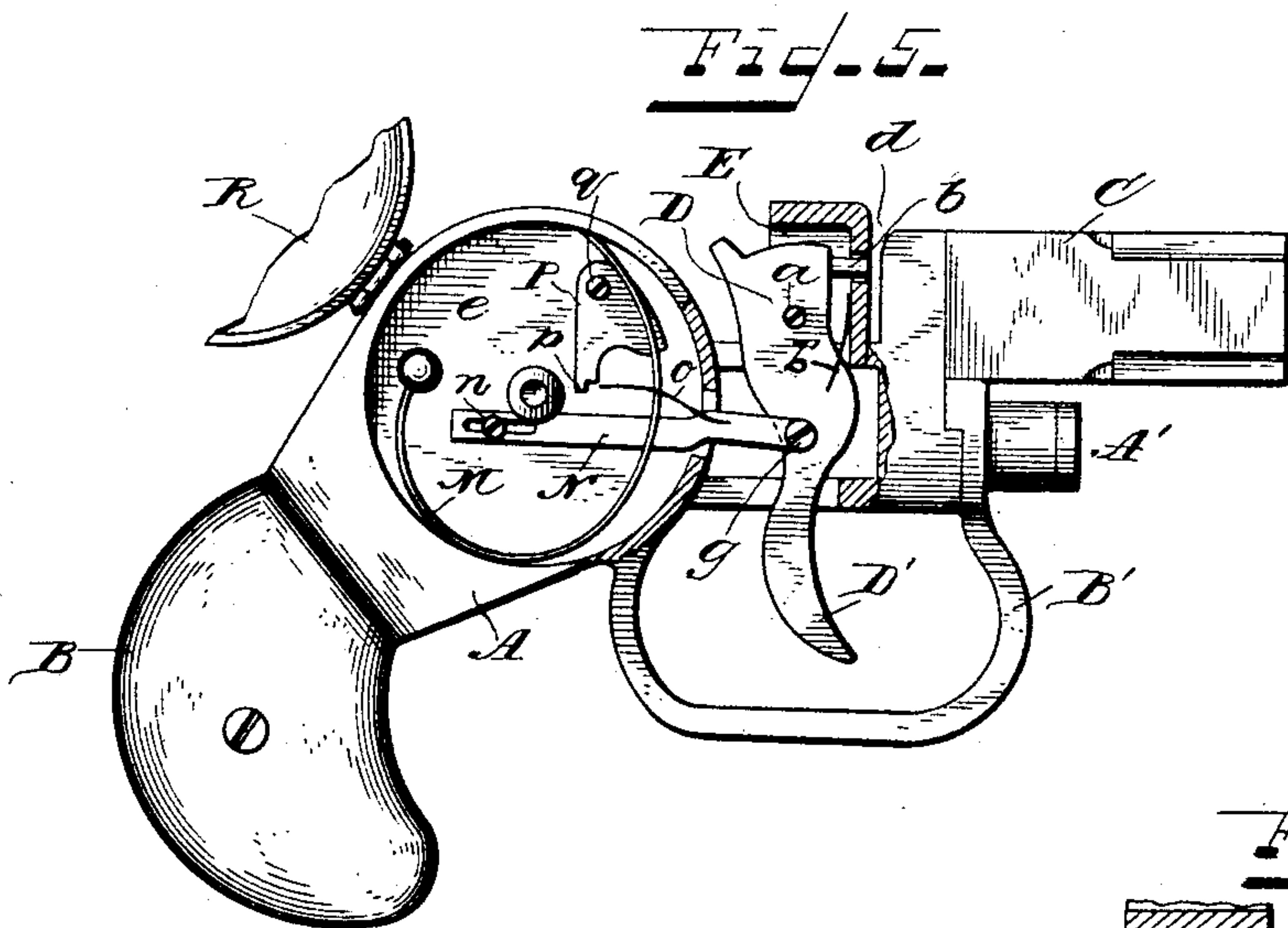
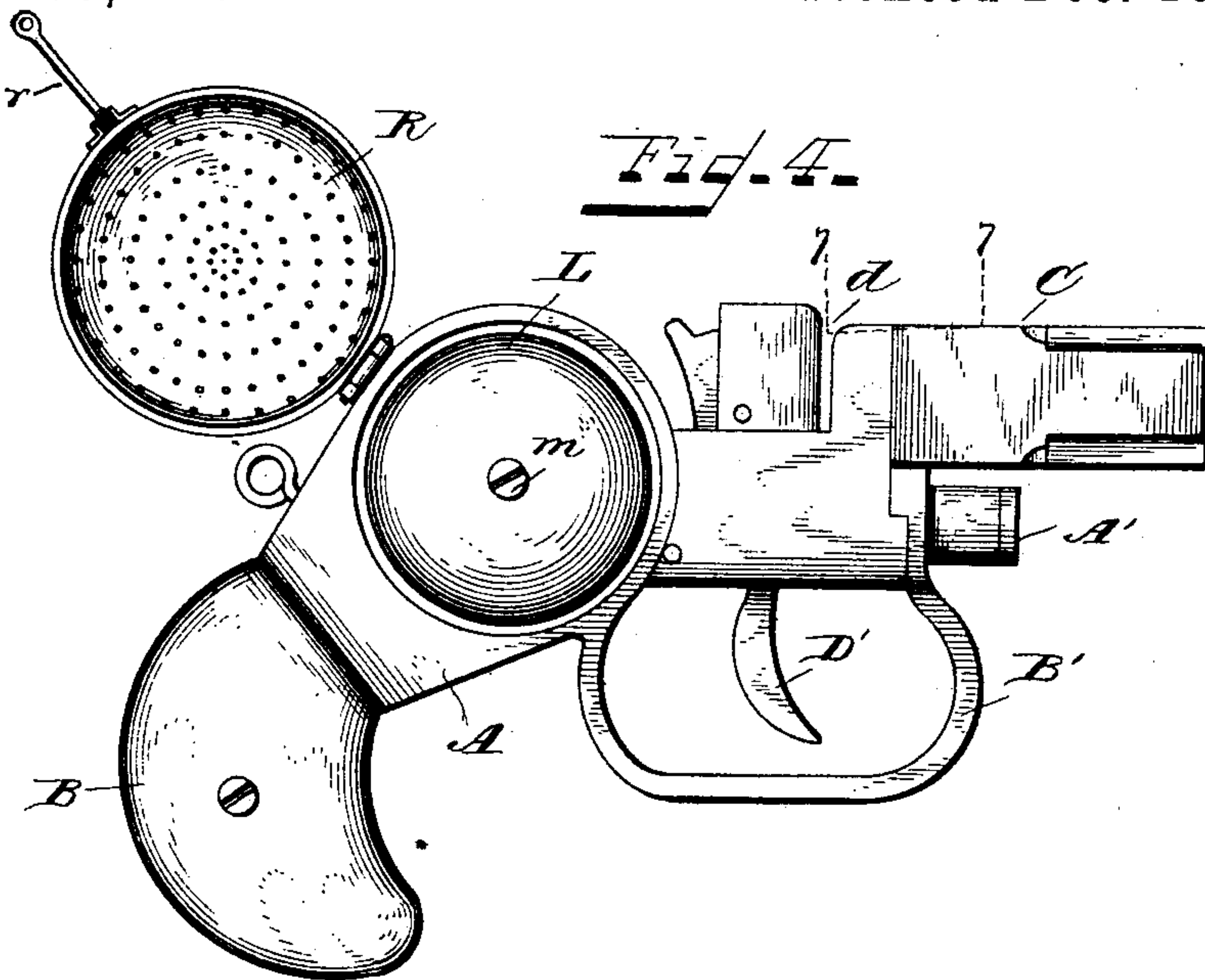
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2 Sheets—Sheet 2.

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Witnesses.

J. Thomson Cross  
J. E. Edman

Inventor.

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# UNITED STATES PATENT OFFICE.

CHARLES H. FOLGER, OF CINCINNATI, OHIO.

## FARE-REGISTERING PUNCH.

SPECIFICATION forming part of Letters Patent No. 465,256, dated December 15, 1891.

Application filed June 5, 1891. Serial No. 395,170. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. FOLGER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, and State of Ohio, have invented a certain new and useful Improvement in Alarm-Punches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to fare-registering devices for the use of car-conductors and the like in which the passenger's ticket is canceled by punching a hole through the same, while the number of the operation is registered on suitable counting-disks and an alarm-bell is sounded to indicate to the passenger that the ticket has been properly canceled; and my invention consists in a certain novel construction and arrangement of parts, to be hereinafter more particularly pointed out and claimed.

In the drawings, Figure 1 is a side elevation of my improved alarm-punch with the cover of the registering-disks thrown back. Fig. 2 is a longitudinal section of same. Fig. 3 is a side view of part of the punch with the cover for the registering-disks closed. Fig. 4 is a side elevation of the reverse side of the punch, showing the alarm-bell with bell-cover open. Fig. 5 is a view of same with bell removed, partly in longitudinal section. Fig. 6 is a cross-section of the punch on the lines 6 6 of Fig. 2 with registry and bell-covers closed. Fig. 7 is a horizontal detail section of part of the barrel and frame-work, taken on line 7 7, Fig. 4.

As will be seen from an inspection of the drawings, my alarm-punch bears a close resemblance to a revolver or pistol, the various parts being arranged in this form both for the novelty in design and because such construction gives a most simple and effective arrangement of parts, as will hereinafter more clearly appear.

A is the metallic frame-work to hold the working parts, preferably fashioned in the form of the frame-work of a revolver and provided with a handle B and barrel C. Within a suitable recess E about the center of this frame-work is pivoted at *a* the lever D, having a downwardly-projecting part or trigger

D', the lever being kept in its normal position by the spring *b'*, secured in a slit in the lever and bearing against the front wall of the recess E. This lever carries at its upper forward end a punch or cutter *b*, with its cutting-edge of any desired shape to cut the desired figure in the ticket. This punch *b*, when the trigger or lever is drawn back, enters a suitable recess *c* at the inner end of the barrel C, and thus the ticket is perforated by the punch when it is inserted in the slot *d* between the recess or hole *c* and the punch. The barrel being closed at its outer end forms a convenient receptacle for the reception of the wads punched from the ticket. The wads are thus saved in order to serve as a check in the registering mechanism in case any dishonesty in the use of the punch is suspected, as the number of wads in the receptacle should of course correspond to the amount registered on the counting-disks.

Immediately back of the lever D the frame-work A forms a cylindrical casing divided into two equal compartments by the partition-plate *e*, and within these compartments on opposite sides are placed the registering and alarm mechanisms.

The registry mechanism consists of a series of four ratchet-wheels F F F F, or any other suitable number pivoted on the plate *e*, so as to turn freely, the first three of these wheels carrying the pins *f*, arranged so that the completion of a revolution of the first wheel will move the adjoining ratchet one tooth. These ratchet-wheels each carry a counting-disk G G G G, marked with the numerals from 0 to 9, while a cover H incloses the registry apparatus, with the exception of four glass-covered windows *h h h h*, one for each counting-disk, through which the numbers registered on the disks may be seen. The first registry-wheel F is actuated upon each operation of the trigger D' by the pawl K, pivoted at *g* to the trigger and engaging the ratchet-wheel F, so that each operation of the trigger D' will move the wheel one tooth. A spring *i* bears upon this pawl K and retains it at all times in engagement with its ratchet-wheel. The counting-disks G G being secured to these ratchet-wheels, it is obvious that with each actuation of the trigger D' the disks will also be revolved and bring the next higher number in



front of the window *h* in the cover, and thus all operations of the punch will be properly registered. In the other cylindrical compartment on the other side of the partition-plate *e* is arranged the alarm mechanism consisting of bell *L*, secured to the frame-work by the screw *m* and the spring-hammer *M*, operated by the trigger *D* as follows: Preferably on the same pivotal pin *g*, to which the registry-pawl is connected, but on the opposite side of the trigger, is pivoted the link *N*, whose other end is slotted and works on the pin *n*, attached to the partition-plate *e*. This link *N* carries a backwardly-extending spring *o*, which on the backward movement of the trigger engages with the lug *p* on the lever *P*, pivoted at *q*, to which lever the spring-hammer *M* is attached. The spring *o* very soon in the operation slips off of the lug *p* and allows the hammer to be sprung against the bell *L*, thereby sounding the same. The bell is also provided with a cover *R*, preferably perforated, as shown in Fig. 4. These covers *H* and *R* are hinged to the frame-work, and are each provided with an inwardly-extending arm or hasp *r* and *s*. These arms are each provided with an opening or eye in the end thereof, and when the covers are closed these openings overlap and the covers are locked by a bolt *u*, passing within these openings. This bolt *u*, which slides back and forth in the frame-work, is thrown within the openings or eyes in the arms *r* and *s* by the beveled lug or projection *w* on the barrel *C*. This barrel is provided with flanges *d'* *d'* on its inner edge, which slide vertically in dovetailed grooves in the end of the frame-work, so that the barrel may be removed. When the barrel is returned to place, the beveled lug *w* strikes against the beveled end of the bolt *u* and pushes it back, thus locking the covers of the alarm and registry mechanism. A spring *y*, secured to the frame at *y'* and engaging a notch *y*<sup>2</sup> in the bolt, presses the bolt forward as soon as the barrel is removed, thus unlocking the covers. The barrel is held in place by the small combination-lock *A'*, the small bolt of which *c'* enters the lug *w*, and when the combination-lock is locked it will be manifest that the entire apparatus is secured from being tampered with.

In the ordinary forms of alarm-punches in which an operating-lever is employed the lever is exposed, so that it is very liable to become caught in the clothing, and thus the device be accidentally operated. In order to overcome this defect I provide my device with a guard *B'*, which surrounds and protects the operating end *D'* of the lever *D* just as the guard of a revolver protects its trigger.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an alarm-punch, the combination of the frame *A*, having a downwardly-projecting handle *B* at its rear end and an elongated or pistol-barrel-shaped wad-chamber *C* at the opposite end, the said chamber being provided with a hole at its rear end to receive a punch or cutter, alarm and registering devices secured upon said frame intermediate the handle and wad-chamber, and a lever *D*, arranged transversely between and in the plane of the handle and wad-chamber and provided with a punch or cutter *b*, adapted to enter the hole in the wad-chamber, and means connecting said lever with the alarm and registering devices, whereby the said devices will be actuated upon the operation of said lever, substantially as shown and described.

2. In an alarm-punch, the combination, with the frame *A*, of the covers *H* *R* for the alarm and registering devices, a hasp or arm on each of said covers, having eyes arranged to coincide when the covers are closed, a bolt adapted to enter said eyes to lock the covers, and a detachable part of the frame or punch for holding said bolt in the locking position, substantially as shown and described.

3. In an alarm-punch, the combination, with the frame *A*, of the covers *H* *R* for the alarm and registering devices, a hasp or arm on each of said covers, having eyes arranged to coincide when the covers are closed, a bolt adapted to enter said eyes to lock the covers, the detachable part or wad-chamber *C*, provided with a lug or part *w*, adapted to engage said bolt, so as to hold it in the locking position when said detachable part or chamber is in place, and means for securing said part *C* or chamber in place, substantially as shown and described.

4. In an alarm-punch, the combination, with the frame *A*, of the covers *H* *R* for the alarm and registering devices, a hasp or arm on each of said covers, provided with eyes arranged to coincide when the covers are closed, the locking-bolt *g*, having an inclined end, spring *y*, engaging said bolt, the removable part or wad-chamber *C*, having a lug or part *w*, provided with an inclined surface to engage the inclined end of the bolt, and means for securing said chamber or part *C* in place, substantially as shown and described.

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Witnesses:

ARTHUR STEM,  
GEO. HEIDMAR.