

P. H. BAKER.
Latch.

No. 214,080.

Patented April 8, 1879.

Fig. 1.

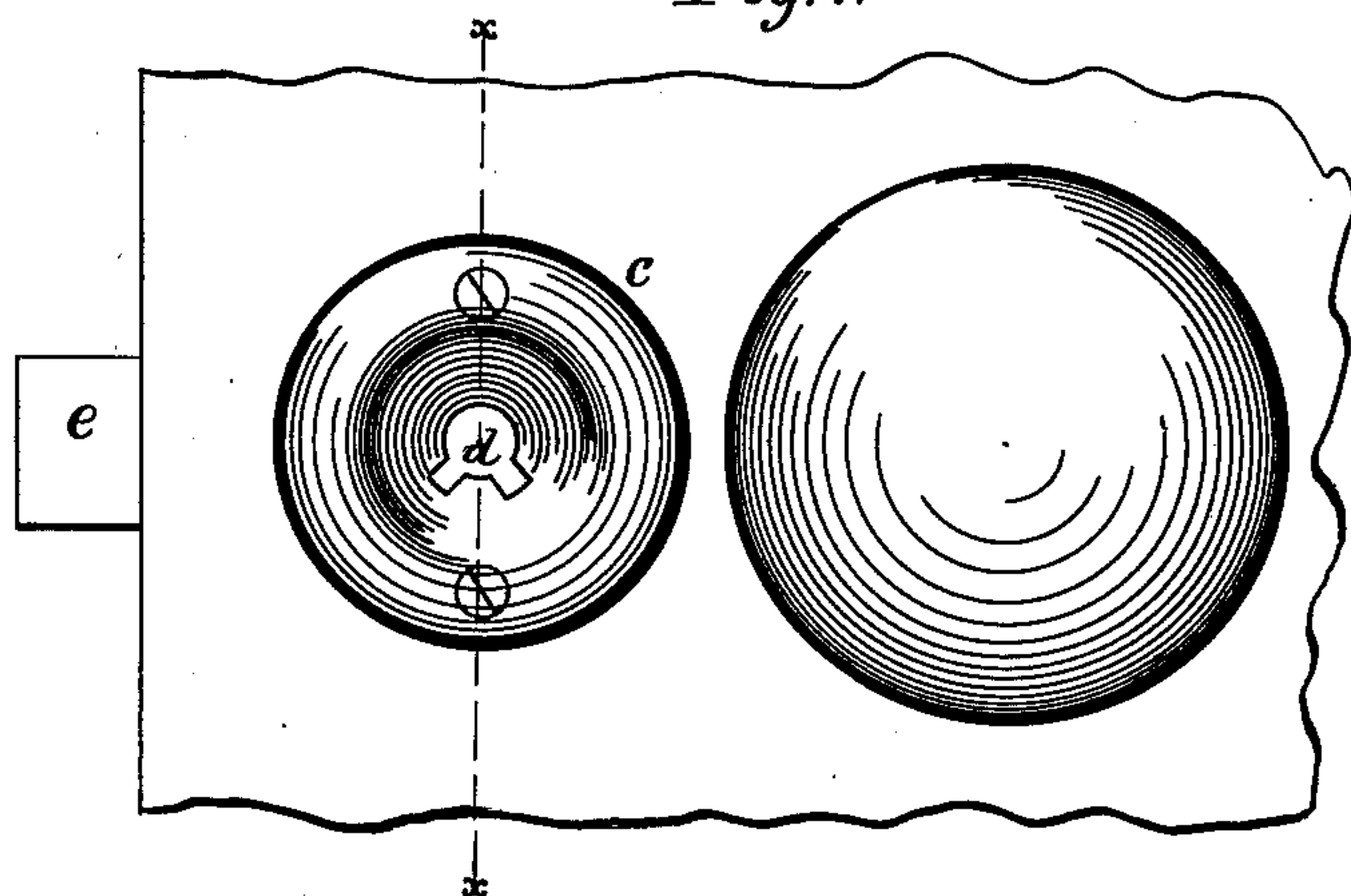


Fig. 2.

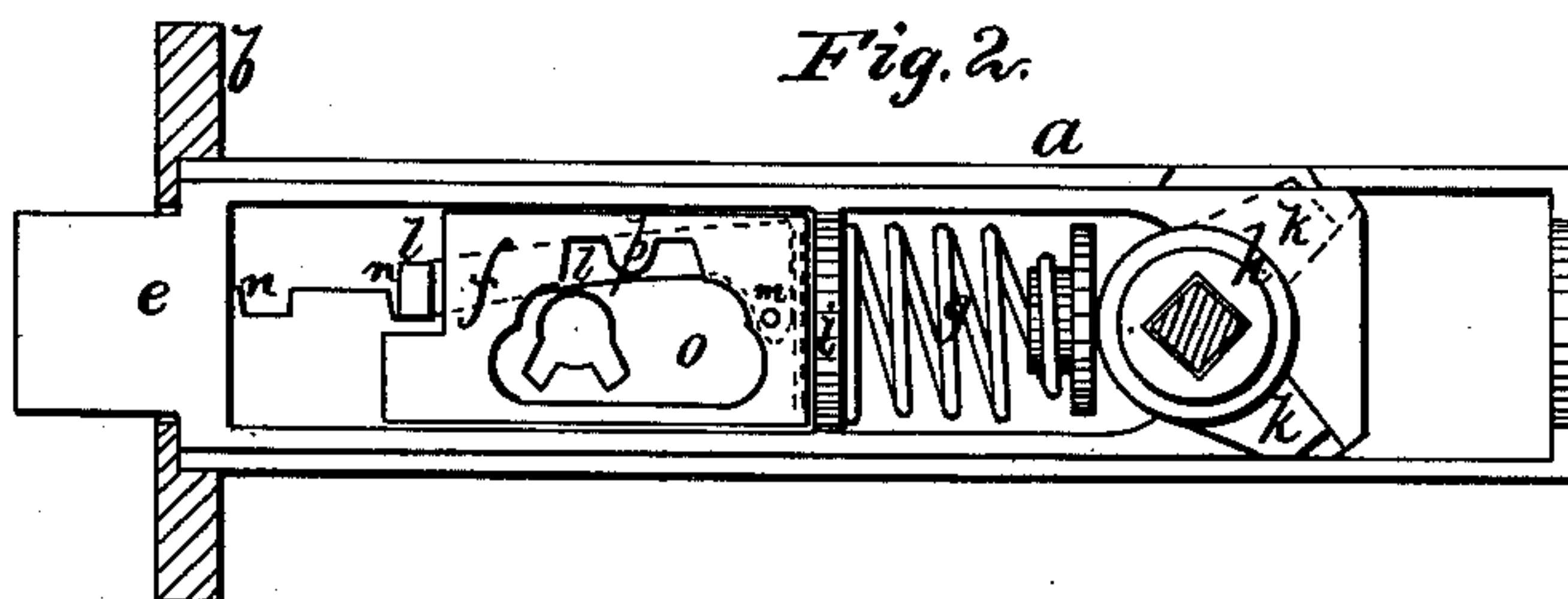


Fig. 3.

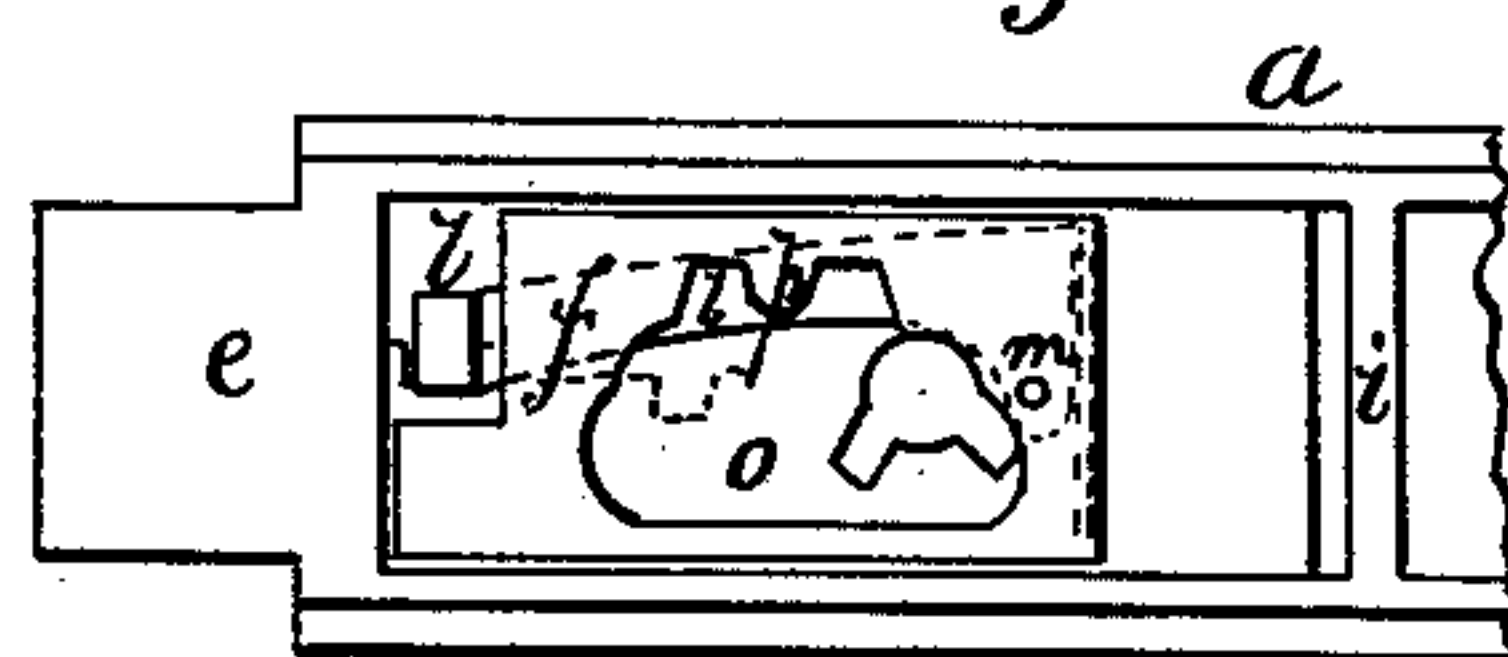


Fig. 6.

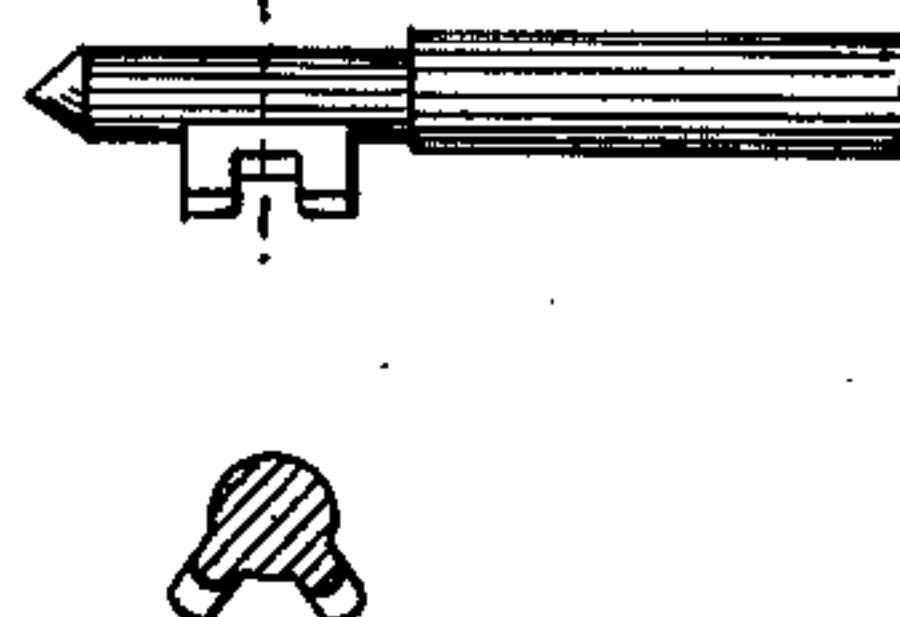


Fig. 4.

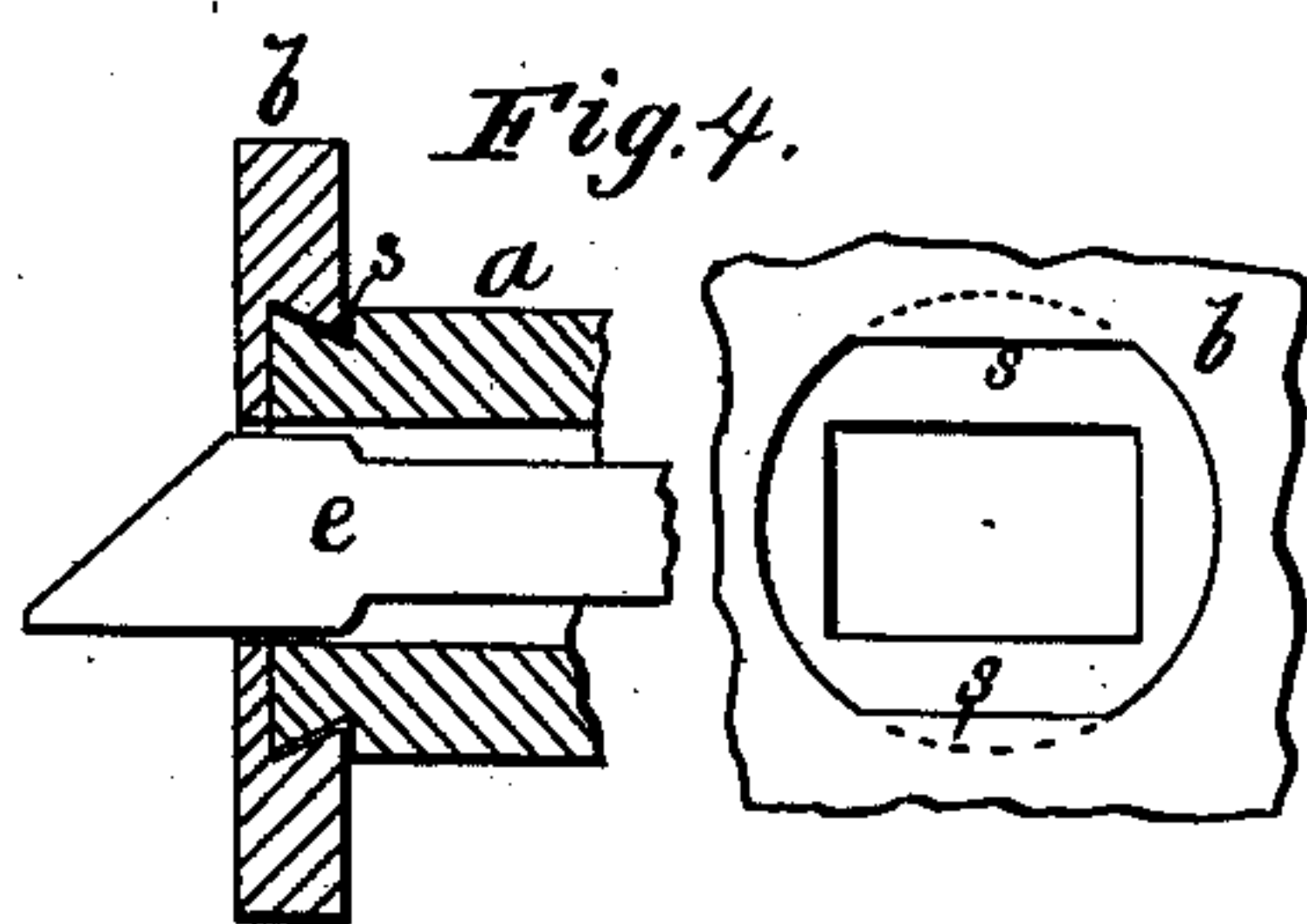
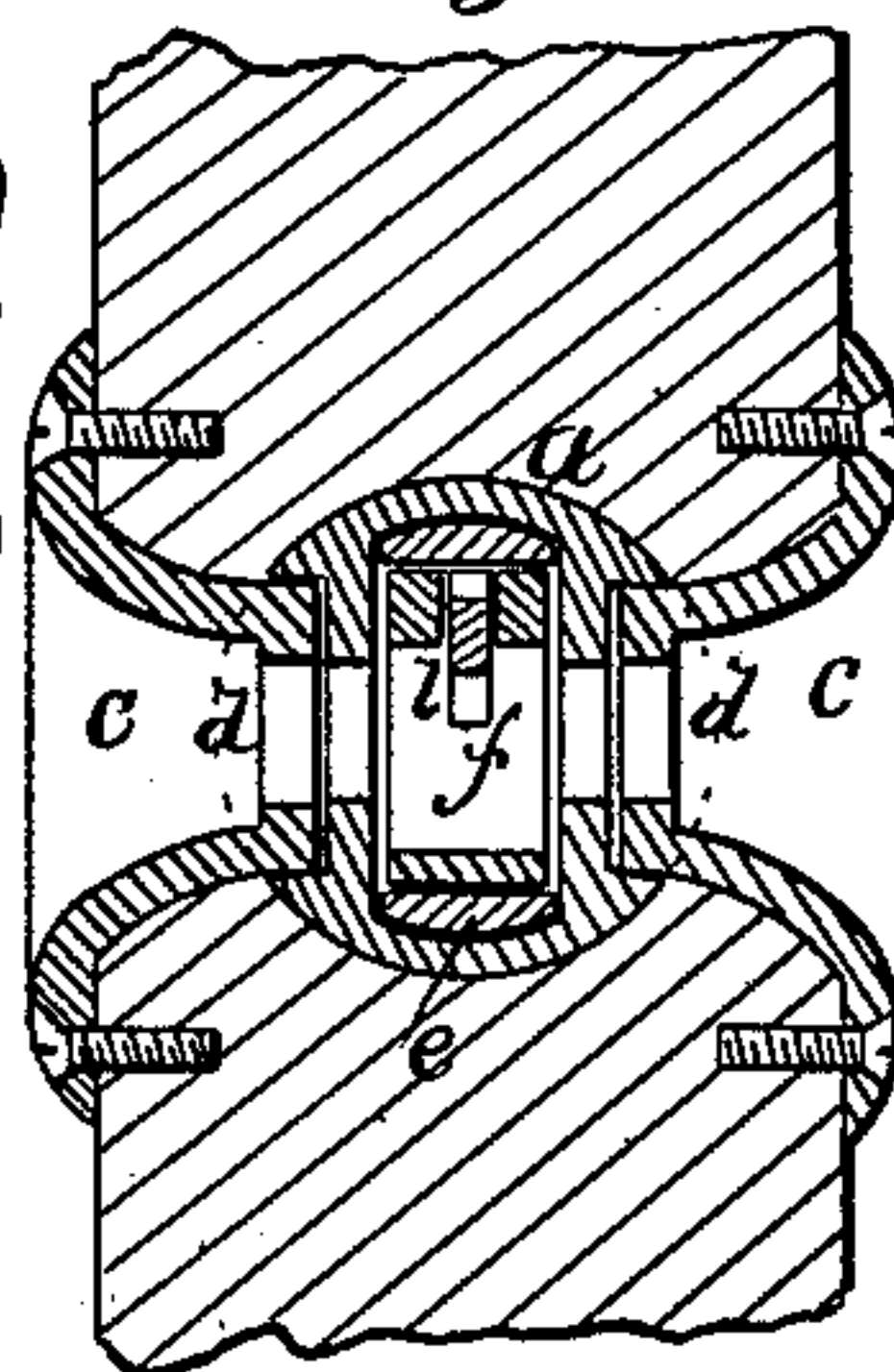


Fig. 5.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

PETER H. BAKER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN LATCHES.

Specification forming part of Letters Patent No. 214,080, dated April 8, 1879; application filed December 30, 1878.

To all whom it may concern:

Be it known that I, PETER H. BAKER, of the city and county of San Francisco, and State of California, have invented a new and useful Improvement in Locking-Latches, of which the following is a specification.

My invention relates to door-latches which may be used simply as a latch or locked with a key to prevent withdrawal of the latch.

The invention consists in certain details of construction, as hereinafter set forth, and shown in the accompanying drawings.

In the drawings, Figure 1 shows the key-hole plate and knob of the lock in position they occupy when applied to a door. Fig. 2 is a sectional elevation of the latch and case, with the parts in position for use as a latch. Fig. 3 is an elevation, showing the latch locked. Fig. 4 is a section of the face-plate and end of the case, showing the manner of connecting the face-plate. Fig. 5 is a cross-section of the locking-latch as applied to a door on line *x* of Fig. 1. Fig. 6 shows the key made use of to lock the latch.

Similar letters of reference indicate corresponding parts.

The case *a* is in two parts, which, when placed together, form a hollow cylinder of suitable size and length for containing the operative parts. This form of case can be fitted by simply boring a hole in the edge of the door and sinking the end plate *b* flush with the edge.

To avoid the necessity of using screws the plate *b* is attached to the end of case *a* by a dovetail connection, as shown in Fig. 4. The plate *b* has a recess, with an undercut edge at opposite sides, as at *s*, to correspond with the dovetail groove at the sides of case *a*. The two parts of the case will be entered in the recess of the plate *b*, and the case then closed together at the other end, and plate *b* will then be held securely.

The key-hole plates *c c* are made concave and of circular form, so that the central portion, where the key-hole *d* is cut is sunk below the surface of the door, which renders it easy to find the key-hole when there is no light. The sunken portion forms a circular projection at the back of each plate *c*, that enters a corresponding depression in the sides of case *a*. The plates *c* serve to retain the case *a* in place;

and in attaching the plates *c* to a door it will be only necessary to turn them around until the key-hole *d* coincides with the hole in case *a*, and then screw the plate fast.

e is the latch and bolt, beveled in the usual manner, and the portion which is within case *a* is slotted to receive the blocking-piece *f* and spiral spring *g*. The spring *g*, that forces the latch outward, is placed at the inner end of the latch-piece, and is held between the hub *h* and a cross-partition, *i*, that divides the slot of the latch-piece. The piece *e* passes at the upper and lower side of hub *h*, and is formed at the end with two oppositely-inclined surfaces, against which the arms *k* of hub *h* act to withdraw the latch. The hub *h* has a square hole for the knob-shank, as usual.

The opening in case *a* at the forward end, where blocking-piece *f* is placed, is of a size and shape to receive and guide the latch and retain the block *f* within the slot of the latch-piece, in which slot the piece *f* is moved back and forth by the key in locking and unlocking the latch.

l is the tumbler, which is hung to the back part of blocking-piece *f* by a pin, *m*, and moves within a slot in the upper part of *f*. Its forward and moving end has a T-head, that rests in one of the notches *n*, which are formed at both sides of case *a*. A flat spring, secured in the back of piece *f*, as shown by dotted lines, serves to retain the tumbler *l* in the notches *n*.

The blocking-piece *f* is cut out at *o*, and formed with a lug, *p*, and recesses, in which the wards of the key enter in moving the piece *f*. The key shown in Fig. 6 has double wards, projecting at an angle to each other, and when entered through the correspondingly-shaped key-hole and turned it first raises the end of tumbler *l* from the notches *n*, and moves the piece *f* part way forward, the T-head of the tumbler resting on the ledge between notches *n*. The second ward then takes against lug *p* and moves piece *f* forward until the T end of *l* drops into the forward notches, *n*, thereby preventing back movement of *f* and latch *e*. The latch is then locked, and cannot be operated until unlocked with the key by a reversal of the operation described.

By placing the tumbler and blocking-piece at the forward end of the latch the knobs are

brought farther from the door-post, thereby giving more room to operate them. The latch *e* can be reversed to suit it for a right or left hand door.

The advantage over the latch covered by my Patent No. 194,637 is that I have so simplified it as greatly to reduce the cost of manufacture.

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

1. In combination with the two-part lock-case *a*, having dovetail grooves, as set forth, the recessed face-plate *b*, having undercut edges, substantially as and for the purposes set forth.

2. The combination of the latch *e*, having at the end oppositely-inclined surfaces and partition *i*, the blocking-piece *f*, tumbler *l*, hung by a pin, *m*, in a notch of said block-piece, the spiral spring *g*, and the hub *h*, having arms *k*, as and for the purpose described.

3. The combination, with the slotted latch *e*, having notches *n*, of the slotted blocking-piece *f*, having a flat back spring, and the tumbler *l*, having a T-head, the said tumbler being hung to the said piece by a pin, *m*, as and for the purpose specified.

PETER H. BAKER.

Witnesses:

JOHN H. BEHRENS,

JOHN T. FEETIG.