

(No Model.)

J. R. & S. K. AMES.

LOCK.

No. 354,526.

Patented Dec. 21, 1886.

FIG. 1.

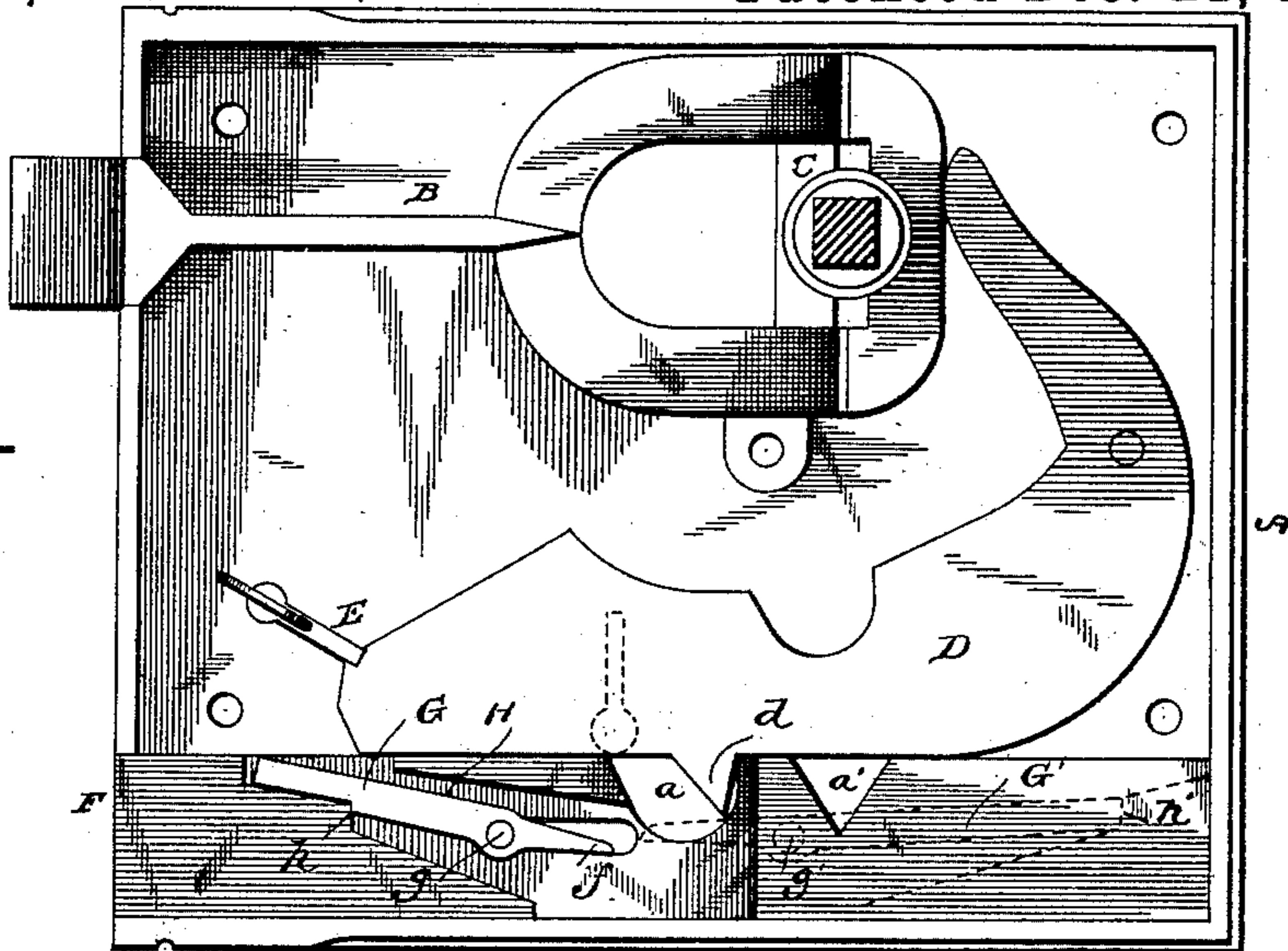


FIG. 2.

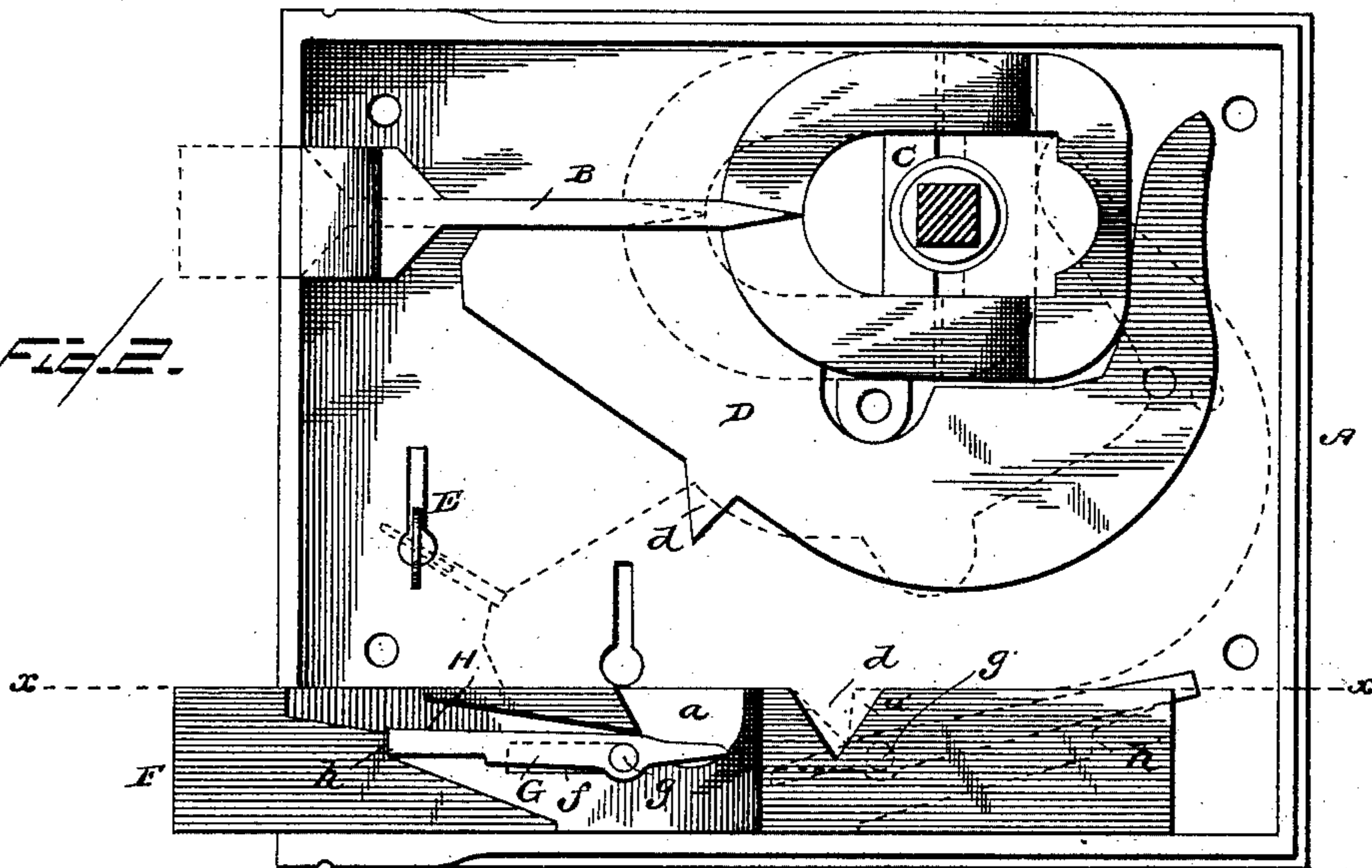
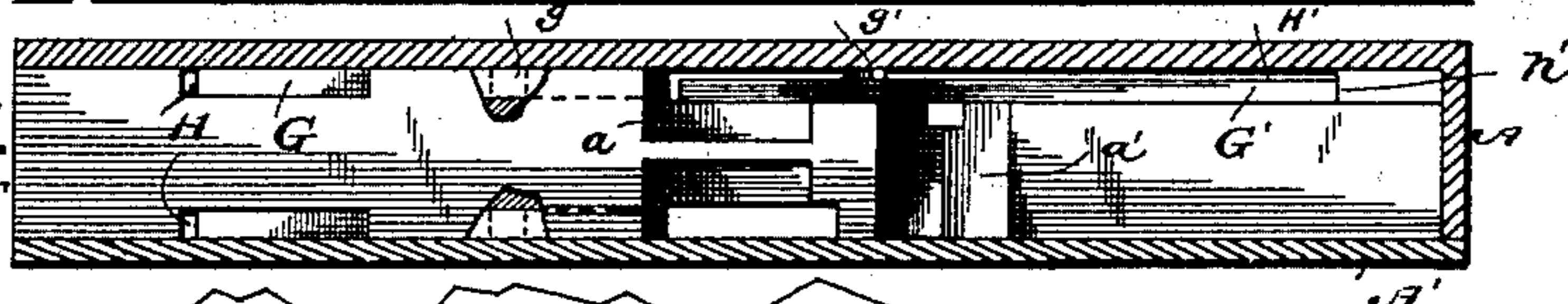


FIG. 3.



Witnesses
Norris A. Clark
R. W. Bishop.

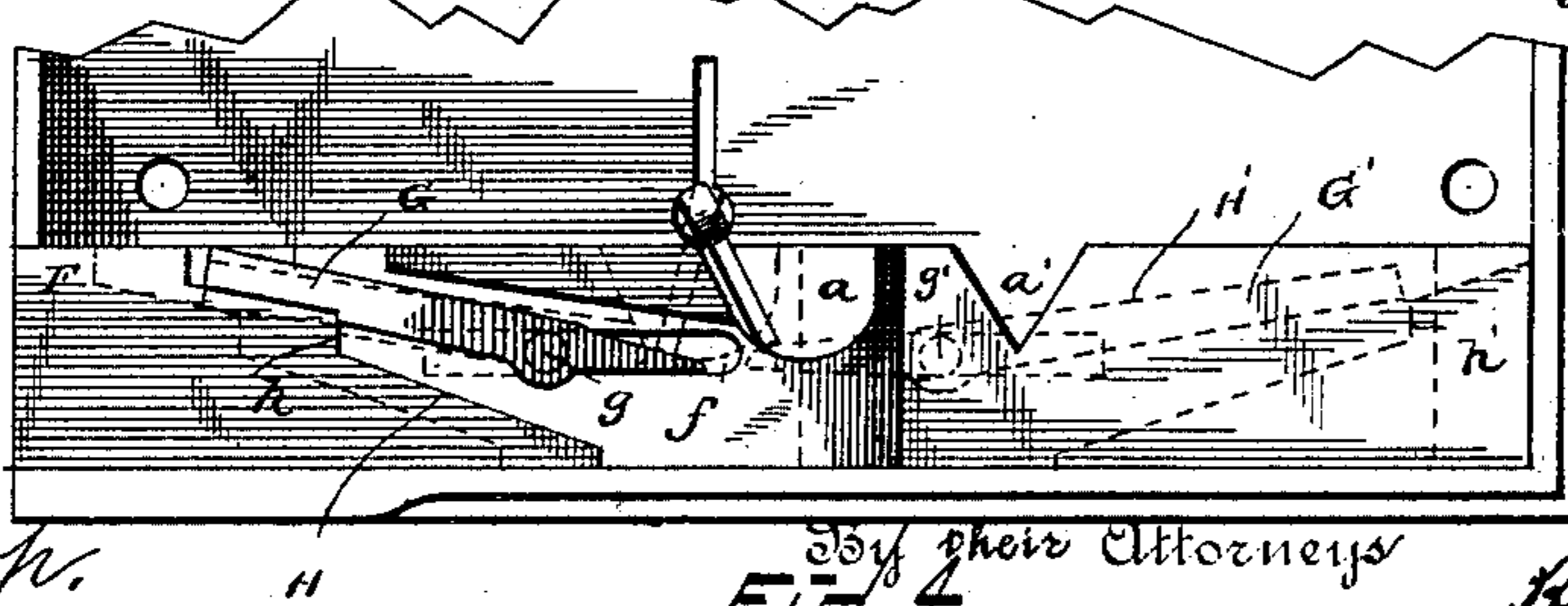


FIG. 4.

Inventors,
J. R. Ames
Stephen K. Ames
R. C. & A. P. Lacey

UNITED STATES PATENT OFFICE.

JOSEPH R. AMES AND STEPHEN K. AMES, OF ANSONVILLE, PENNSYLVANIA,
ASSIGNORS OF ONE-HALF TO BENJ. F. WISE AND EDWARD R. AMES, BOTH
OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 354,526, dated December 21, 1886.

Application filed March 26, 1886. Serial No. 196,689. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH R. AMES and STEPHEN K. AMES, citizens of the United States, residing at Ansonville, in the county of Clearfield and State of Pennsylvania, have
5 invented certain new and useful Improvements in Locks; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in
10 the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 This invention relates to locks; and it consists in the novel features hereinafter more particularly set forth and claimed, and shown in the annexed drawings, in which—

20 Figure 1 is a view in elevation with the side removed, showing the latch-bolt out and the locking-bolt in. Fig. 2 is a similar view showing the latch-bolt in by full lines and out by dotted lines, and also showing the locking-bolt projected. Fig. 3 is a sectional view on the
25 line *xx* of Fig. 2, parts of the bolt being broken away on each side. Fig. 4 is a view of the lower portion of the lock with the side removed.

30 The object of the invention is to provide means for locking the key-operated bolt in a projected and retracted position by gravity-levers which are arranged to extend in opposite directions, the levers locking the bolt against movement in one direction only, as
35 will presently appear.

Case A, containing the operating parts, is provided with a removable side, *A'*. Latch-bolt B, knob-operated tumbler C, gravity-tumbler D, for projecting the latch-bolt and inter-
40 locking therewith and with the locking-bolt, and the dead-latch E are of substantially the same construction and combination as shown in Patent No. 327,053, granted J. R. Ames September 29, 1885.

45 Locking-bolt F is provided with two notches, *a a'*, in its upper side to receive the projection *d* of the gravity-tumbler, by which the bolt is locked in a projected or retracted position, as clearly set forth in the above-mentioned patent.
50 ent.

Two gravity-levers, G G', similarly constructed, are pivoted at a point between their ends to the case by pivots *g g'*, respectively. For the sake of convenience, those ends of the levers farther apart and nearer the ends of the case will be designated the "outer" ends, and
55 those nearer or adjacent to each other the "inner" ends. The outer ends of the levers are more remote from their pivotal points than the inner ends, and being heavier gravitate, 60 thereby effecting a corresponding elevating of the inner ends. Recesses H H', formed in the side of the locking-bolt, permit the levers to be wholly seated therein, and shoulders *h h'* form stops against which the outer ends of the le- 65 vers abut and hold the bolt in a projected or retracted position, as indicated in Figs. 2 and 1, respectively.

The levers G G' may be arranged singly, as shown to the right in Fig. 3, or in pairs, as shown to the left in same figure; or a single one may be located to the right, and two to the left, as shown. This is the preferable construction, as greater stability is thereby given the bolt in its projected position, and the forcing of the same by means other than the key rendered doubly difficult. In the latter case a lever will be located on each side of the locking-bolt and seated in corresponding recesses in each side thereof, and the pivot *g* will be
70 extended from side to side of the case and pass through a longitudinal slot, *f*, in the bolt to permit of the free sliding movement of the latter.

The levers are so arranged that their inner 85 ends project across the notch *a* and extend a little above its bottom when their outer ends are in engagement with the shoulders or stops on the bolt. Thus it will be seen that by inserting the key and partially turning the same 90 its wing, before contacting with the side of the notch, will depress the inner end of the lever and disengage the outer end from the shoulder or stop on the bolt, as partially indicated by dotted lines, Fig. 4. The first action of the 95 key is to disengage the gravity-lever from the locking-bolt, and then actuate the bolt itself, either by projecting or retracting it, as the case may be.

Having thus described my invention, what I 100

claim, and desire to secure by Letters Patent, is—

1. In a lock, the combination, with the locking-bolt and stops located at or near each end, 5 of two pivotally-supported gravity-levers extending in opposite directions, having their outer ends alternately engaging with the stops and their inner ends adapted to be engaged alternately by the key, whereby the corresponding outer end is disengaged from its stop 10 and the bolt simultaneously moved by the key, substantially as set forth.

2. In a lock, the combination, with the locking-bolt provided with a key-engaging notch 15 in its upper edge, and recesses in its side on each side of and communicating with the notch and having shoulders forming stops, of two pivotally-supported gravity-levers seated in said recesses and extending in opposite directions, having their inner ends approaching 20 close to each other and their outer ends gravitating and engaging with the stops, whereby the key, alternately engaging with the inner ends of the levers, depresses them and corre-

spondingly elevates their outer ends and disengages them from the slots, substantially as set forth. 25

3. The combination of the case, the locking-bolt longitudinally slotted, a pair of gravity-levers, one being located on each side of the bolt, a pivot for the levers extending through 30 the slot in the bolt and the sides of the case, and stops on each side of the bolt engaged by the gravitating ends of the levers, the opposite ends of which levers are projected beyond the pivot to be engaged by the key, a corresponding gravitating lever extending in an opposite direction with its inner end in close 35 proximity to the inner ends of the first-mentioned levers, and a corresponding stop for the gravity end, substantially as set forth. 40

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH R. AMES.
STEPHEN K. AMES.

Witnesses:

S. T. BROCKBANK,
FRANK G. HARRIS.