

No. 610,227.

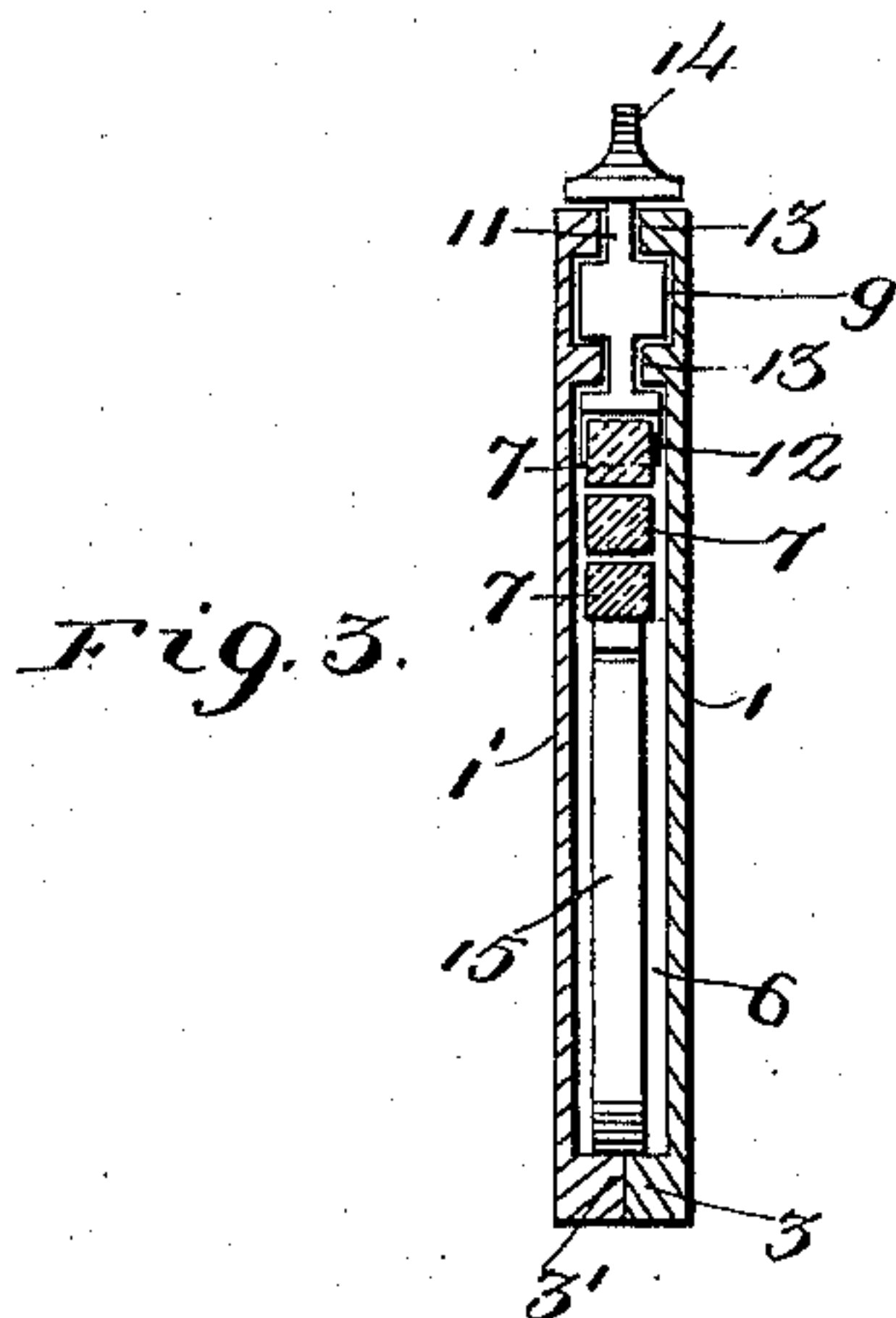
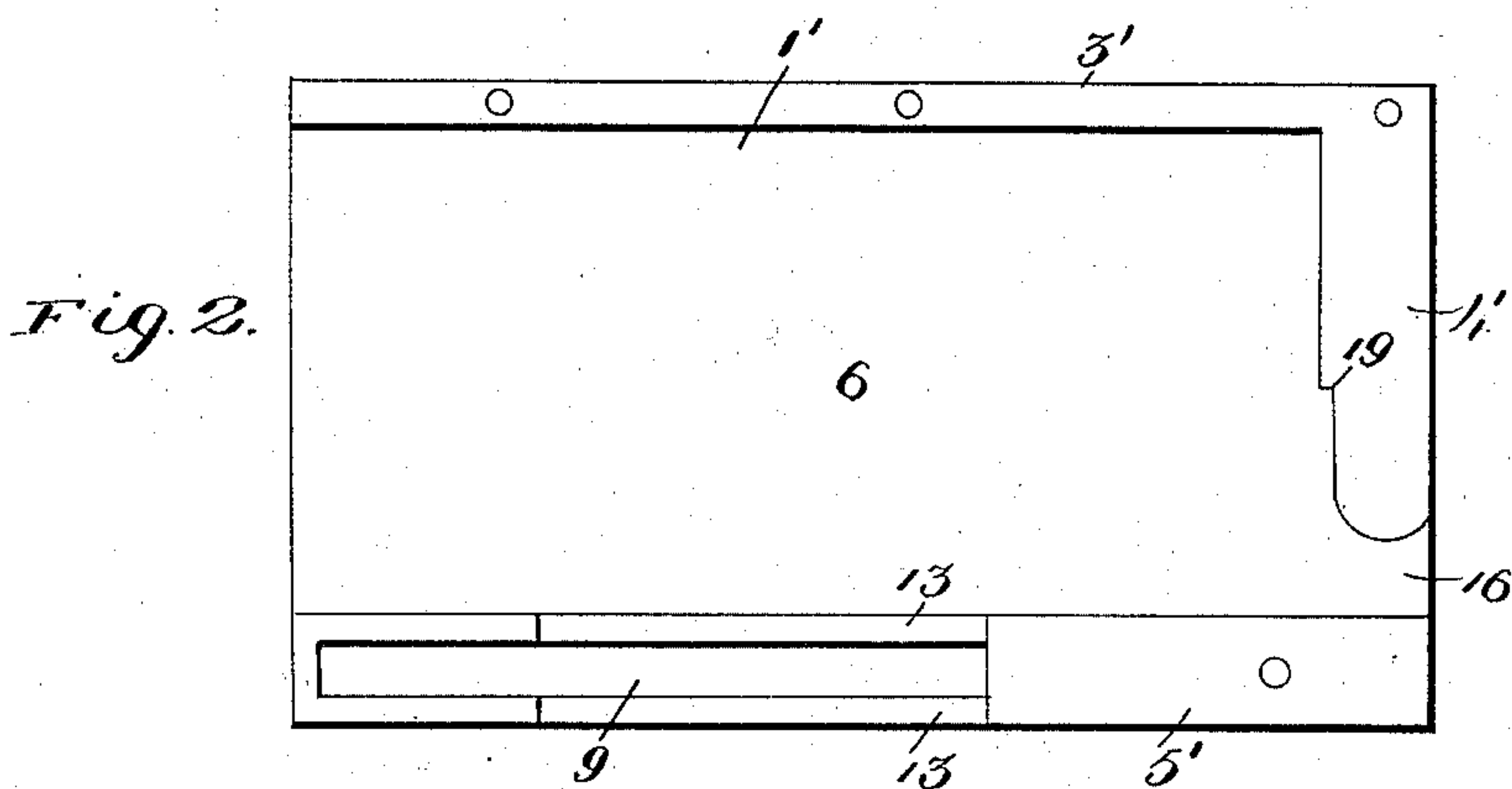
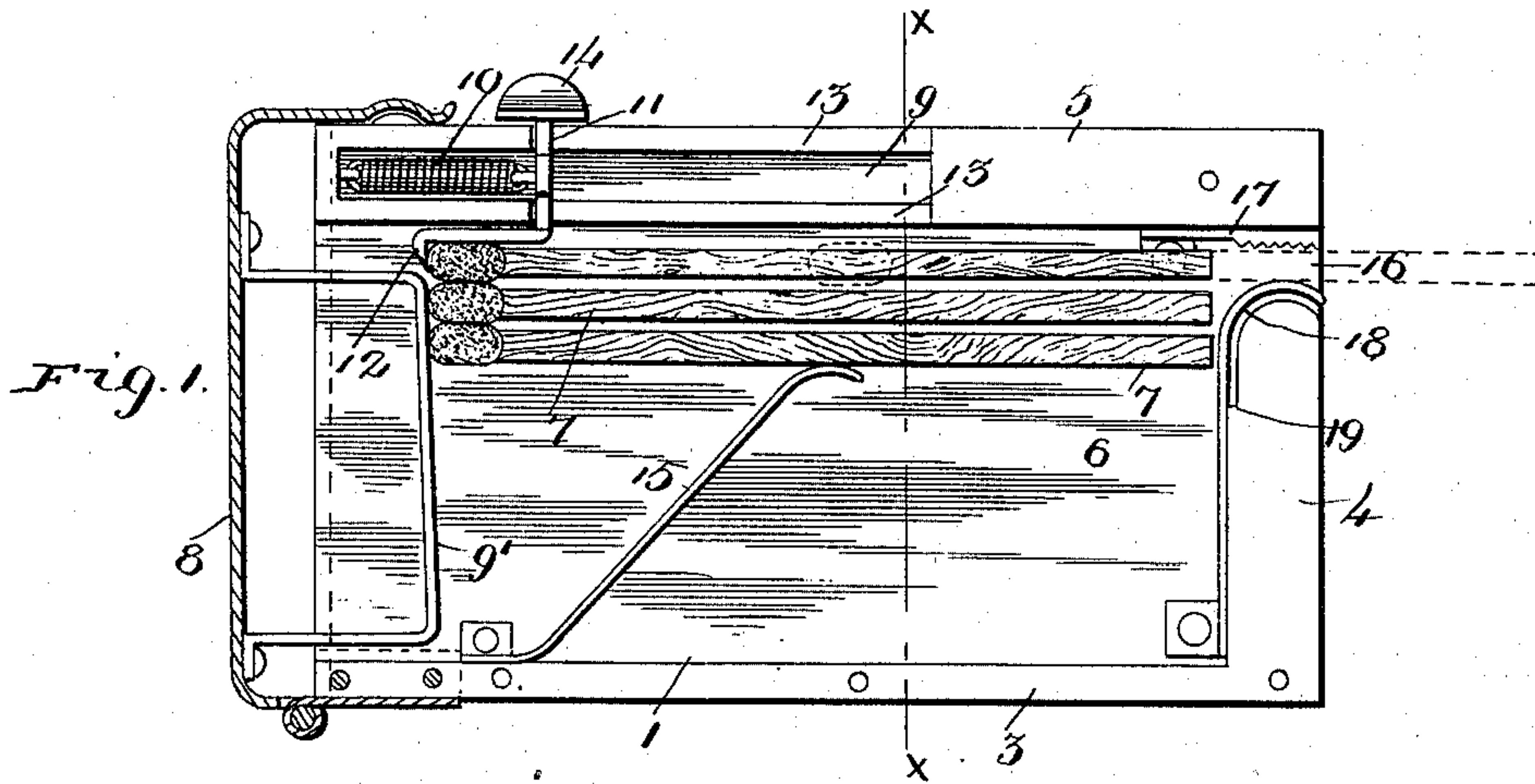
Patented Sept. 6, 1898.

E. I. B. CARROTHERS.

MATCH BOX.

(Application filed Sept. 11, 1897.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

ELIZABETH IDA B. CARROTHERS, OF TIRO, OHIO.

MATCH-BOX.

SPECIFICATION forming part of Letters Patent No. 610,227, dated September 6, 1898.

Application filed September 11, 1897. Serial No. 651,329. (No model.)

To all whom it may concern:

Be it known that I, ELIZABETH IDA B. CARROTHERS, a citizen of the United States, residing at Tiro, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Match-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in match-boxes; and it consists in the novel construction of box more particularly set forth in the specification and pointed out in the claim.

In the drawings, Figure 1 is a plan view of the interior of one section or half of the box. Fig. 2 is a similar view of the other section; and Fig. 3 is a section on line *xx* of Fig. 1, showing, however, the two halves of the box coupled together.

The object of my invention is to construct a match-box which is provided with mechanism for delivering the matches consecutively, each match being obliged in the withdrawal thereof from the box to pass through an opening the sides of which are provided with a roughened scraping plate or surface for imparting sufficient friction to the head of the match to ignite the same.

In detail the invention may be described as follows:

Referring to the drawings, 1 1' represent the respective sections or halves of which the box is composed, the section 1 serving to carry the operating parts of my device. The respective sections are provided along three of their edges with correspondingly-raised portions or ridges 3 4 5 3' 4' 5', along which they are coupled, the combined thicknesses of the ridges being sufficient to form a chamber 6, adapted to accommodate a single layer of matches 7. Hinged to one of the longitudinal edges of the box, adjacent to the open end of the chamber 6, is the lid or cover 8, to the inner surface of the upper edge of which is secured a substantially U-shaped plate 9', the base of which is normally inclined to the edge of the lid and serves when the lid is closed as a supporting-ledge for the igniting ends of the matches introduced into the box. Formed in the sectional ridge 5 5' of the box is a cavity 9, extending from the upper edge of the

box to a suitable distance along the longitudinal edge of the box, the base of the cavity serving to secure one end of a coiled spring 10, to whose free end is attached the shank 11 of an ejecting-finger 12, the said shank being guided between the walls of the longitudinally-slotted passages 13, cut from the walls of the cavity 9, and having an inner deflected extension 11, by which the finger is directly carried. The outer projecting end of the shank is provided with an operating-button 14 and is limited in its movements by the terminal walls of the slotted passages 13. The ledge 9' is inclined toward the finger 12 when the latter is in its normal position, the position of the finger being such as to freely receive each match shoved along the ledge 9' by the resilient action of the free end of a spring feed-arm 15, whose fixed end is secured to the ridge 3 of the section 1.

Between the base of the ridge 5 5' and the adjacent end of the ridge 4 4' is a delivery-passage 16, one of the walls of which is bounded by a roughened scraping-plate 17. Disposed along the inner edge of the ridge 4 is a yielding plate 18, whose free end is separated from the free curved end of the ridge by a shoulder or offset 19, the resiliency of the free end of said yielding spring forcing the match drawn through the delivery-opening against the scraping-plate, and thus causing the match to ignite as it passes said scraper.

To eject a match, the operator simply moves the button 14 far enough to expose a portion of the match resting on the finger 12 (see dotted lines in Fig. 1) through the opening 16, when the operator may seize the exposed portion and pull the match out completely. Upon the release of the knob 14 the spring 10 returns the finger to its original position to seize the next match forced into proper position by the spring feed-arm 15. The matches are initially inserted into the box with their heads up, and when the lid is closed the ledge 9' forces them into proper position for being properly fed to the ejecting-finger 12. It is apparent, of course, that the device may be altered in details without departing from the spirit of my invention.

Having described my invention, what I claim is—

A match-box composed of two sections or

halves, each section having raised portions or ridges along three of its edges along which the sections are coupled, a cavity formed in one of the longitudinal ridges, the walls of
5 said cavity being slotted longitudinally, a coiled spring having one end secured at the base of the cavity adjacent to the open end of the box, an ejecting-finger having a shank operating within the slotted walls of the cavity and being secured to the opposite or free
10 end of the coiled spring, the finger projecting into the interior of the box, a hinge carried by the box, and having a ledge which when the lid is closed is adapted to support the igniting ends of the matches, the ledge being
15 inclined to the normal position of the finger whereby the matches can be readily shoved toward the finger, a spring feed-arm for forcing the matches toward the finger, the base of the box having a delivery-opening opposite 20 the finger, a scraping-plate bounding one of the sides of the opening, and a yielding plate for forcing the matches against the scraping-plate, substantially as set forth.

In testimony whereof I affix my signature 25
in presence of two witnesses.

E. IDA B. CARROTHERS.

Witnesses:

EMIL STAREK,

ALFRED A. MATHEY.