

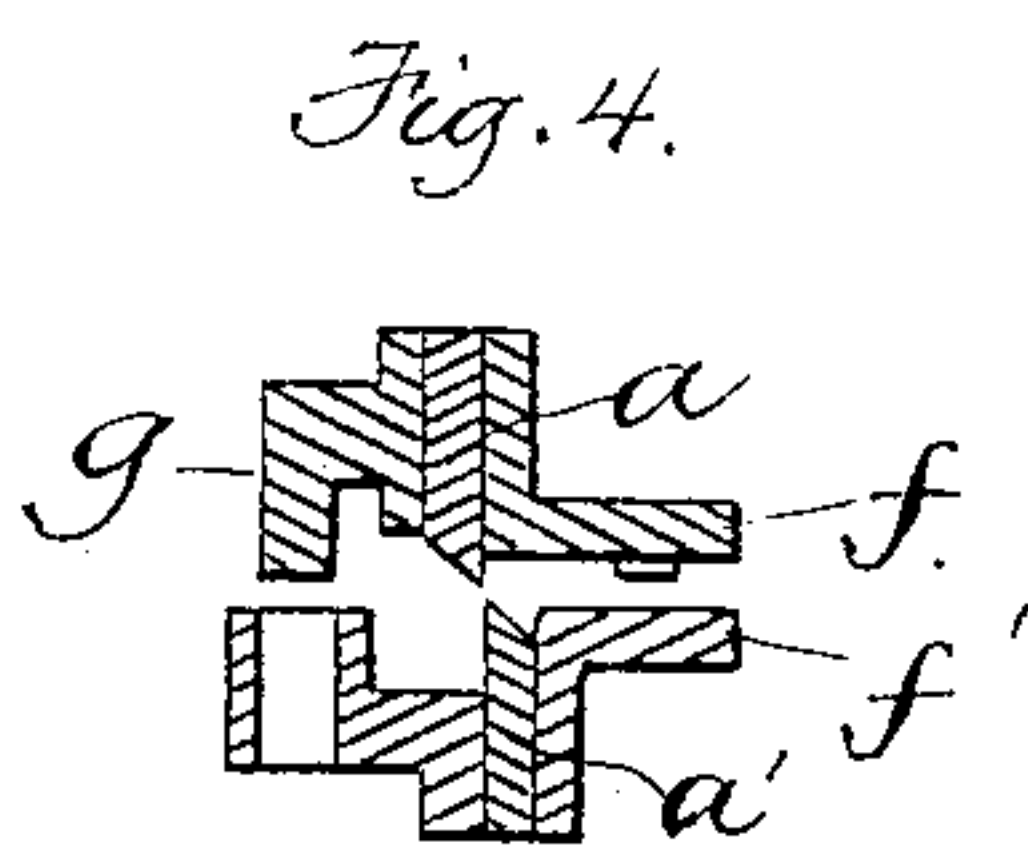
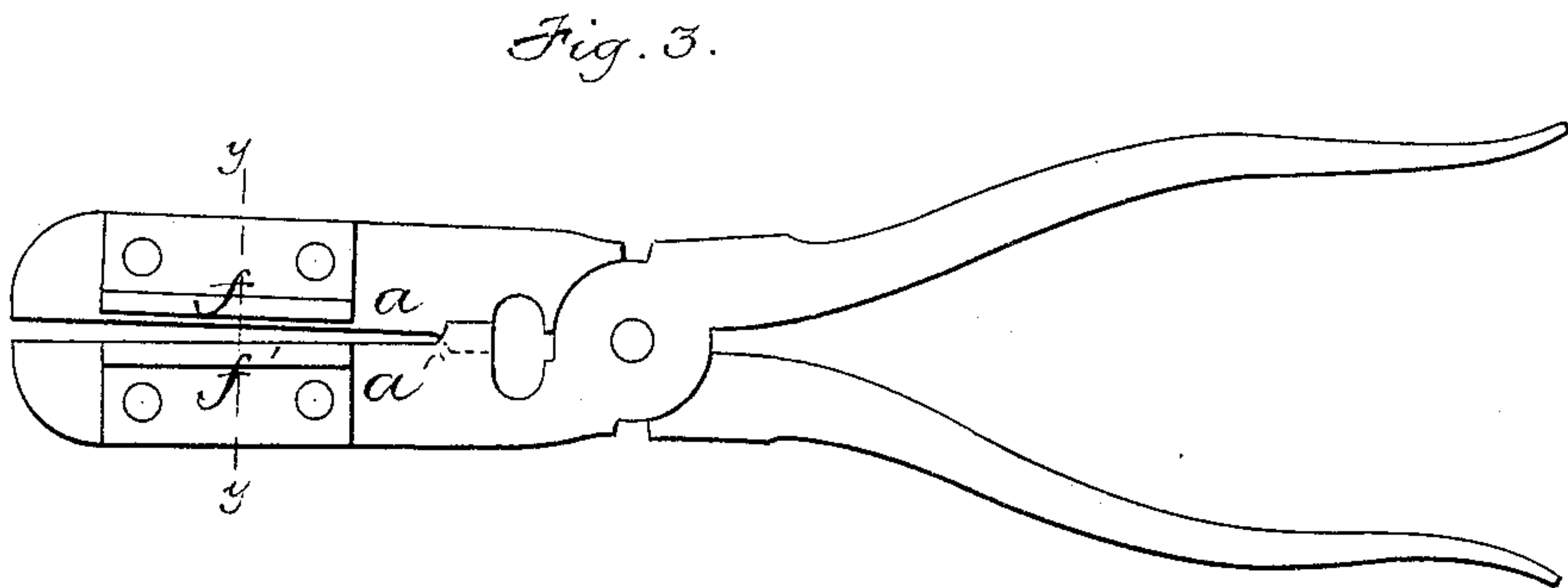
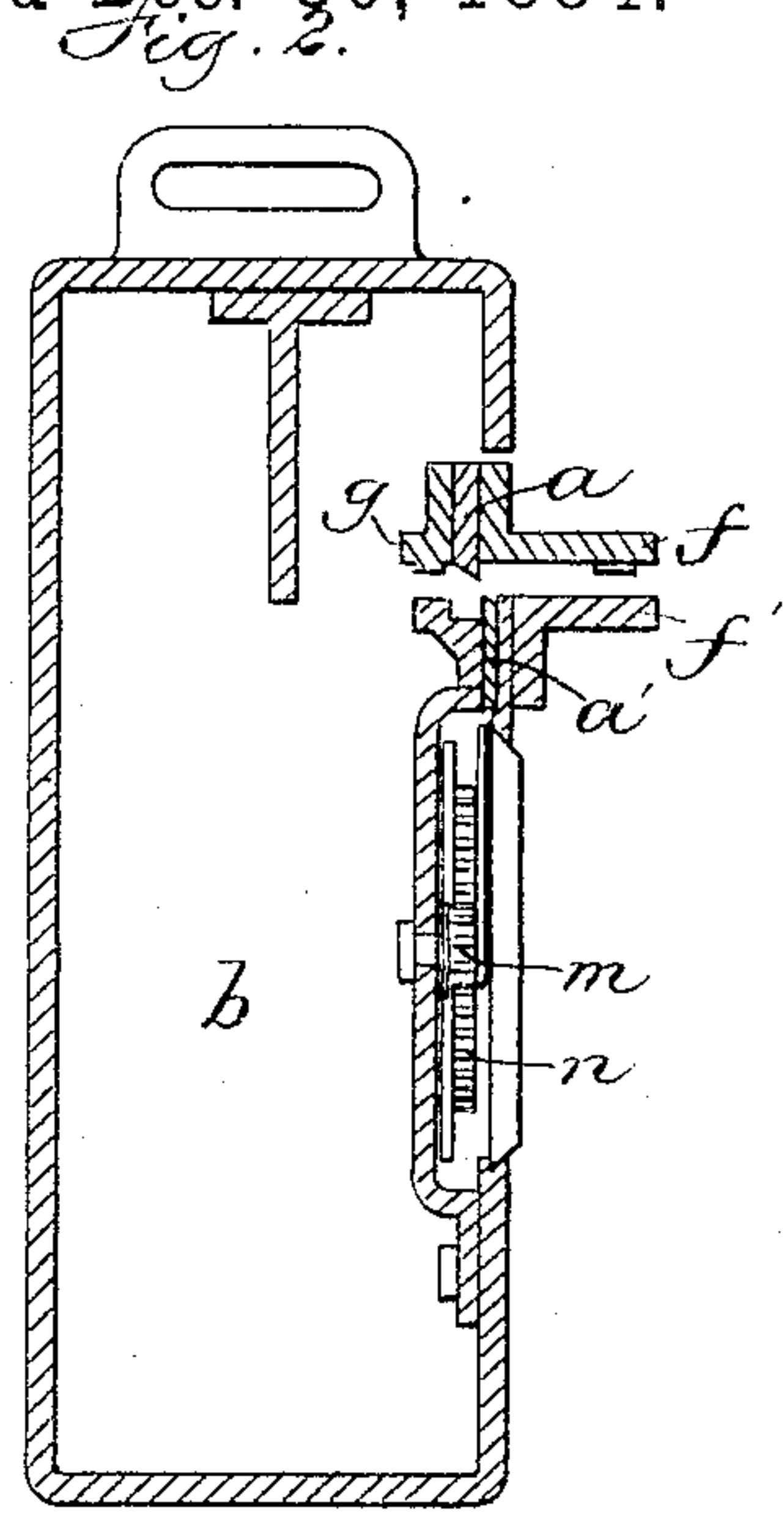
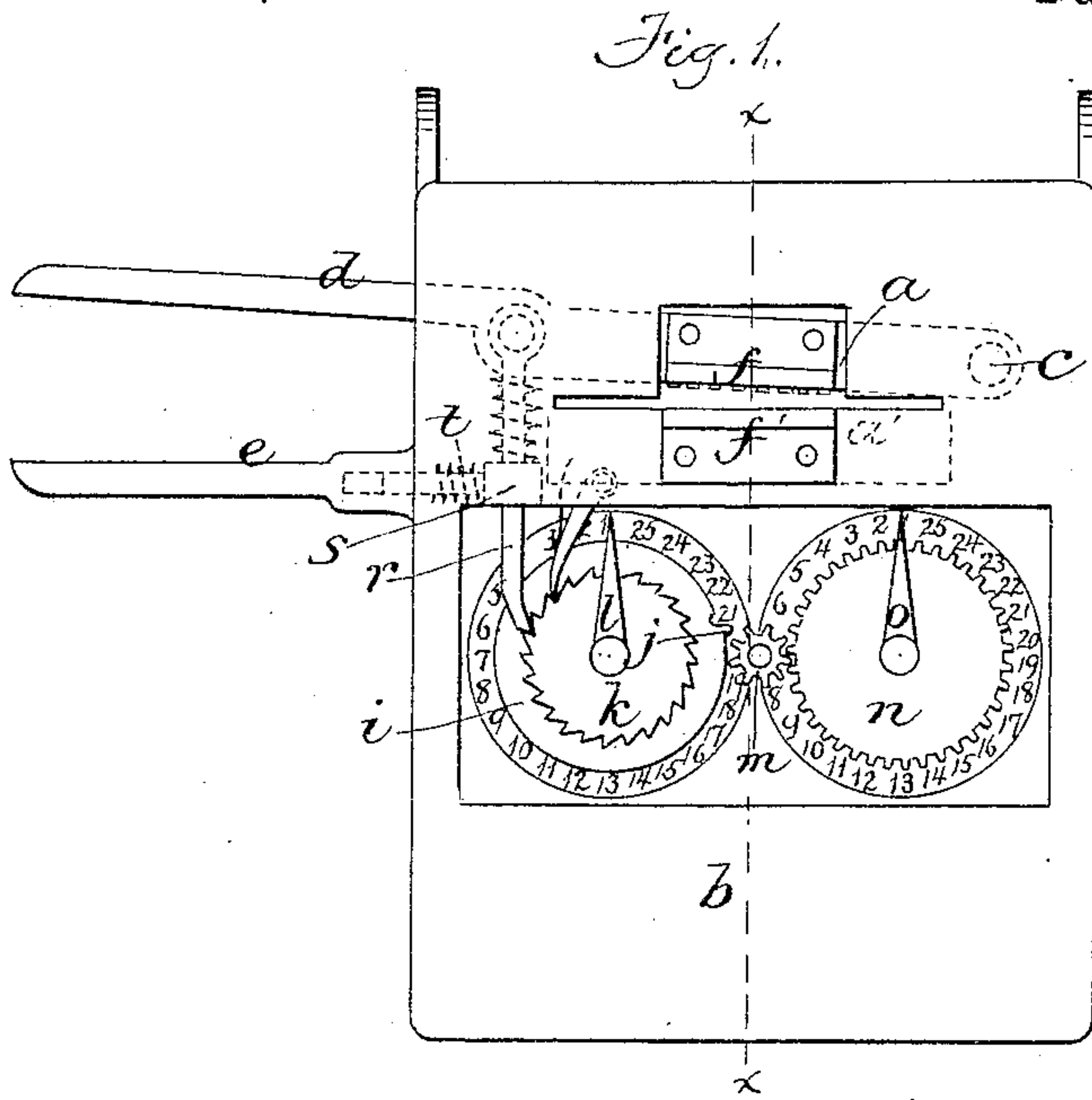
(No Model.)

J. G. CRAWFORD & E. F. POLAND.

TICKET REGISTERING, STAMPING, AND CUTTING DEVICE.

No. 309,823.

Patented Dec. 30, 1884.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES G. CRAWFORD AND EDWARD F. POLAND, OF BOSTON, MASS.

TICKET REGISTERING, STAMPING, AND CUTTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 309,823, dated December 30, 1884.

Application filed February 4, 1884. (No model.)

To all whom it may concern:

Be it known that we, JAMES G. CRAWFORD and EDWARD F. POLAND, both of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Ticket Registering, Stamping, and Cutting Devices, of which the following is a specification.

This invention has for its object to provide more effectual means than those now in use for preventing street-car conductors or other officials in public conveyances from fraudulently appropriating tickets collected from passengers and disposing of said tickets for their own benefit.

The invention consists, first, in a device to be carried by the conductor adapted to sever a ticket or coupon from the end of a strip of tickets and simultaneously mark the succeeding ticket, so that an inspection of the strip or ticket retained by the passenger will indicate whether the conductor has properly disposed of the ticket collected or not, means being provided either for canceling the collected ticket at the same time that it is severed or for holding the severed ticket in a box or receptacle.

The invention also consists in a registering mechanism adapted to be operated by the cutter, as hereinafter described and claimed.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of an apparatus embodying our invention. Fig. 2 represents a section on line *x x*, Fig. 1. Fig. 3 represents a front elevation of a modification. Fig. 4 represents a section on line *y y*, Fig. 3.

The same letters of reference indicate the same parts in all the figures.

In carrying out our invention we provide a ticket-cutter composed of two blades, *a a'*, of sufficient length to cut a coupon or ticket from a strip of similar tickets.

In the construction shown in Figs. 1 and 2 the lower blade, *a'*, is affixed to a box or receptacle, *b*, and the upper blade is pivoted at *c* to said box, and is provided with a shank or handle, *d*, projecting through a slot in the box *b*, the latter having a corresponding fixed handle, *e*.

To the outer side of the pivoted blade is affixed, in any suitable manner, a marking

device, *f*, which is arranged to make a mark on the ticket succeeding that detached by the cutter. Said marking device may be a printing or embossing stamp formed, for example, to mark the word "Registered" on the ticket retained by the passenger, and is arranged over a suitable bed, *f'*, which is affixed to the front of the box, and supports the ticket while the marking device is acting upon it.

The cutter is so arranged relatively to the box that the ticket severed by the cutter must fall into said box, which may be so constructed that the ticket will be inaccessible to the conductor, if desired.

The marking device *f* is so arranged that the conductor, in severing a ticket by the cutter, is obliged to cause said device to act on the next ticket.

We have also shown a canceling device, *g*, adapted to act simultaneously with the cutter and cancel or destroy the value of the severed ticket. Said device is preferably a die arranged to impress the word "Canceled" on the severed ticket, although when used without a registering device, as shown in Figs. 3 and 4, it may be a punch composed of a male member affixed to and moved by the blade *a*, and the female member secured to the blade *a'*.

The canceling device may be used with the box or receptacle, as shown in Fig. 2, or may be omitted in an apparatus employing said receptacle.

In Figs. 3 and 4 we have shown the cutter, marking device, and canceling device without the box. When this form is used, the conductor is allowed to retain the canceled tickets, but is unable to separate a ticket from a strip or check and properly mark the next ticket or check without canceling the separated ticket.

If desired, a registering mechanism may be arranged to be operated by the blade *a*, as shown in Figs. 1 and 2.

The registering mechanism is composed of, first, a wheel or disk, *i*, having a single tooth, *j*, on its periphery, which is otherwise smooth, a ratchet, *k*, affixed to said disk, and a pointer, *l*, affixed to the ratchet; secondly, a pinion, *m*, arranged to be rotated a single step by the tooth *j* when the latter reaches said

pinion, but at all other times prevented from rotating by the bearing of two of its teeth against the periphery of the disk *i*; and, thirdly, a cog-wheel, *n*, meshing with the pinion *m*, and having a pointer, *o*. Concentric rows of numerals are provided on a plate behind the disk *j*.

r represents a dog pivoted to the shank of the blade *a*, and engaged at its lower end with the ratchet *k*, so that each depression of said blade in severing a ticket will, through said dog, rotate the ratchet *k* one tooth, and cause the pointer to point to a number one higher than before.

s represents a guide-block through which the dog *r* slides. Said block has a shank, which slides in a socket formed in the box *b*, and a spring, *t*, which forces the dog with a yielding pressure against the ratchet. It will be seen that after the ratchet and its pointer have made a complete rotation the tooth *j* rotates the wheel *n* and pointer *o* a single step, and thus registers the total number indicated by the complete rotation of the ratchet.

We claim—

1. The combination, with a ticket-cutting blade and its operating mechanism, substan-

tially as described, of an independent marking device operated by said mechanism, whereby the succeeding ticket is marked as the first one is severed by the blade, substantially as set forth.

2. The combination, with the severing-blade and its operating mechanism, of a canceling device, whereby the severed ticket is canceled, and an independent marking device, whereby the succeeding ticket is marked, all operating simultaneously substantially as described.

3. The combination, with the severing-blade and its operating mechanism, the independent marker operated thereby to mark the succeeding ticket, and a registering device operated simultaneously therewith, all the parts constructed and relatively arranged substantially as set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 31st day of January, 1884.

JAMES G. CRAWFORD.
EDWARD F. POLAND.

Witnesses:

C. F. BROWN,
A. L. WHITE.