

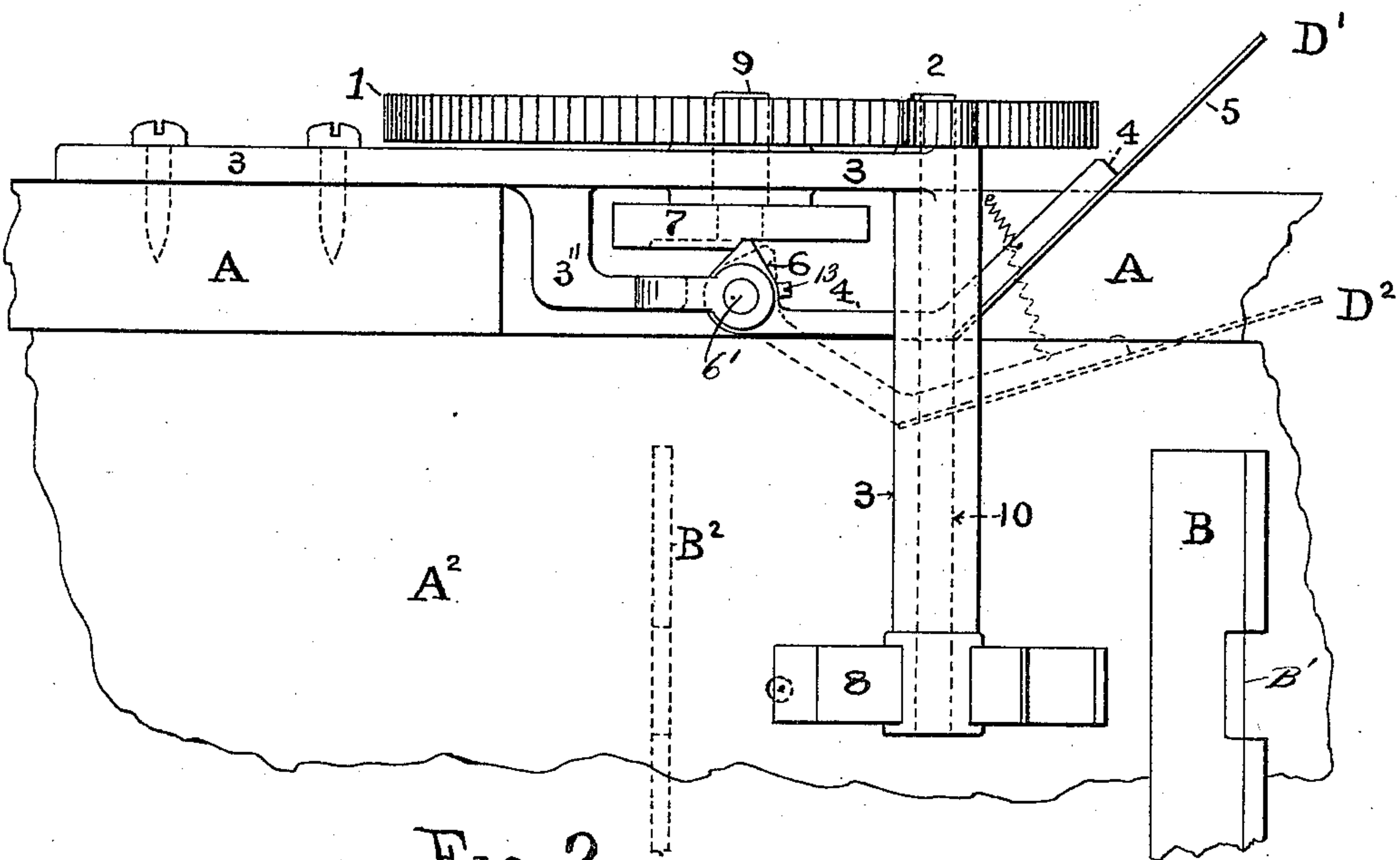
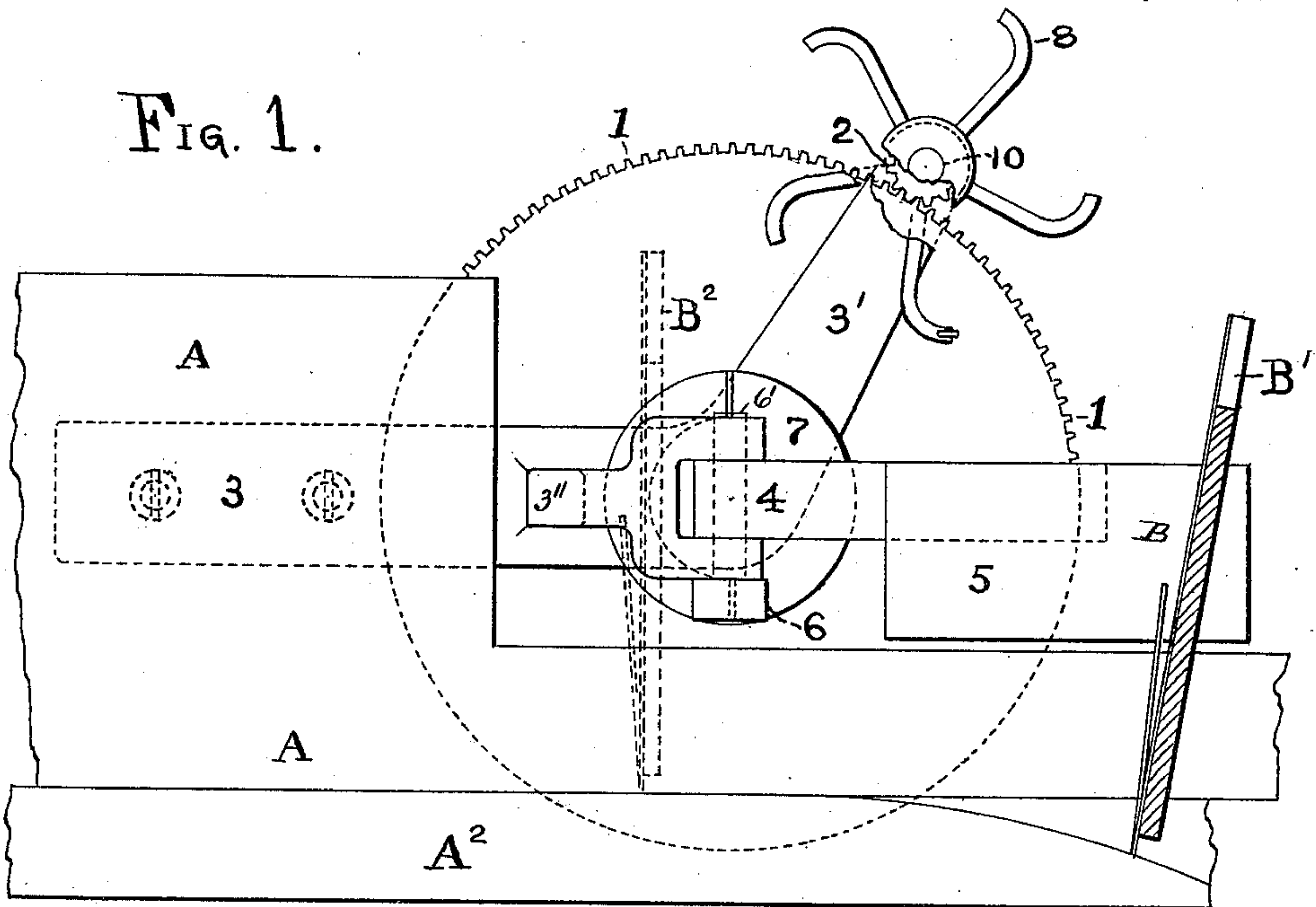
(No Model.)

2 Sheets—Sheet 1.

R. W. PITTMAN.
ENVELOPE AND CARD COUNTING DEVICE.

No. 424,127.

Patented Mar. 25, 1890.



Witnesses.

H. A. McDevaid
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Inventor.

R. W. Pittman

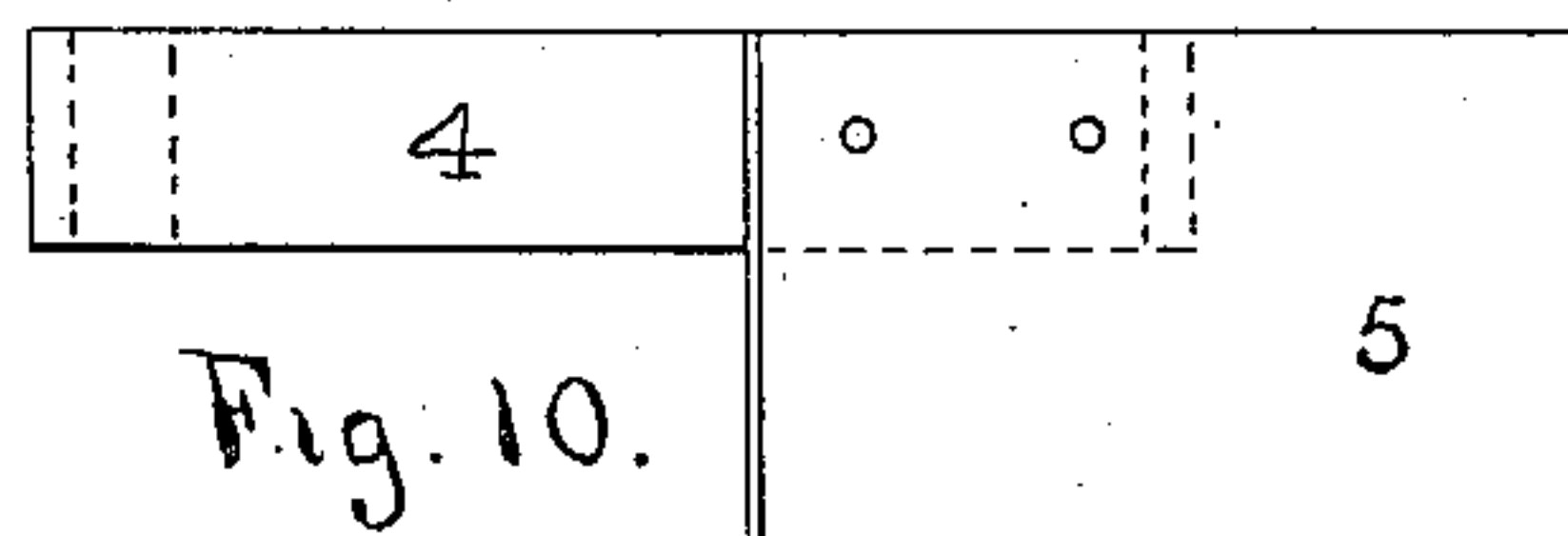
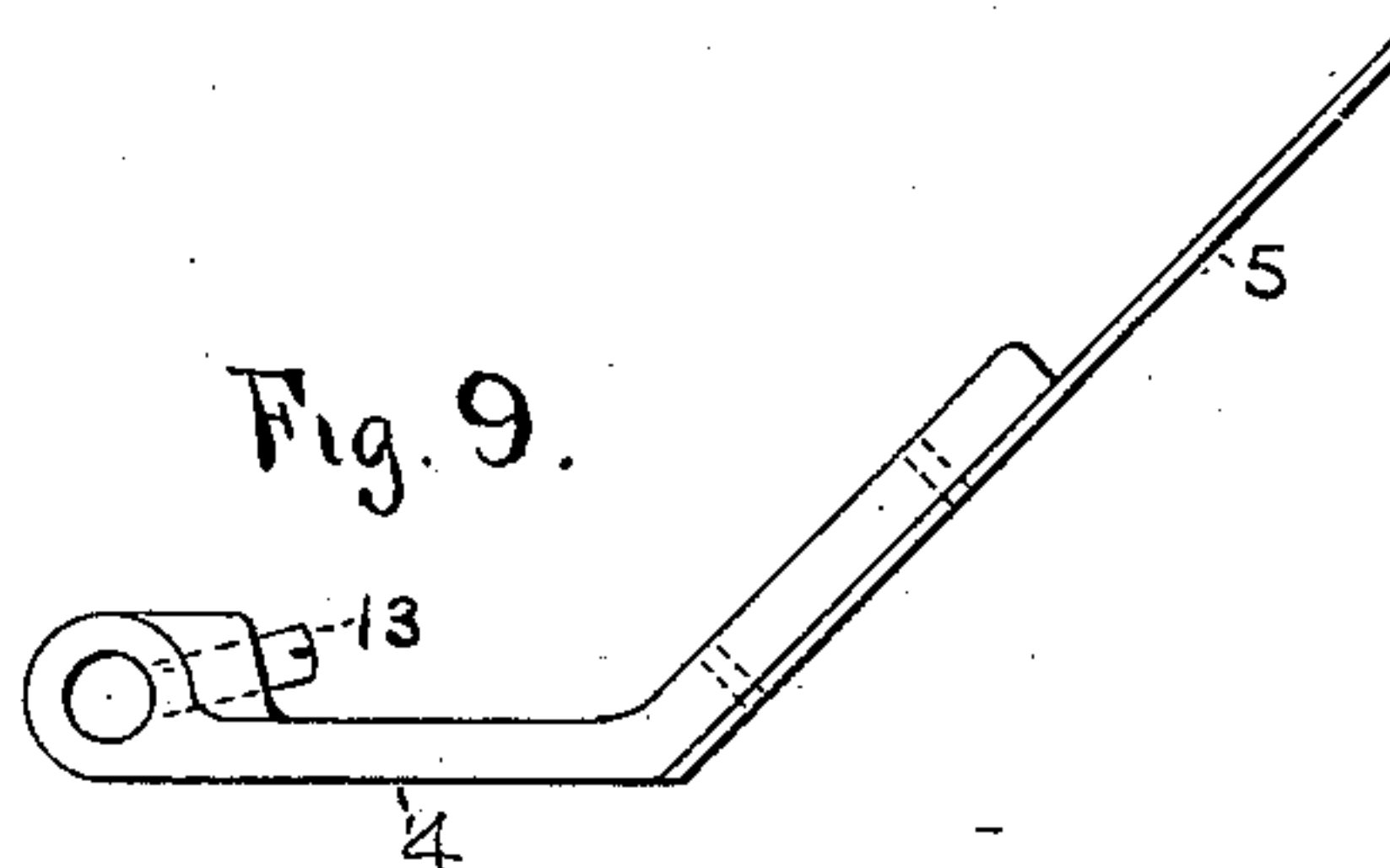
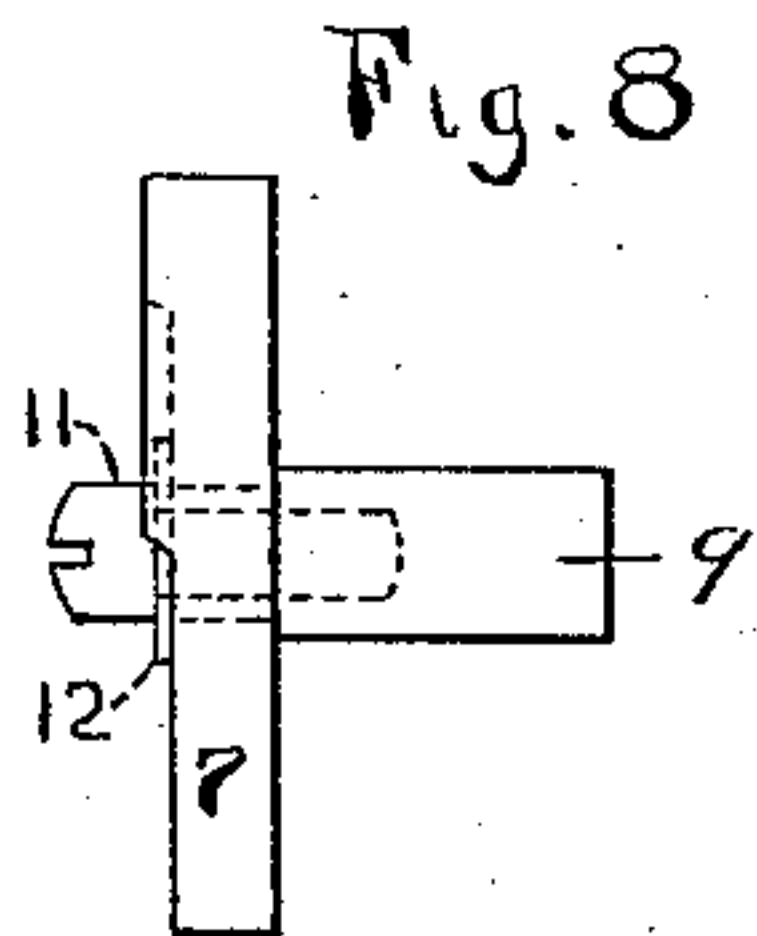
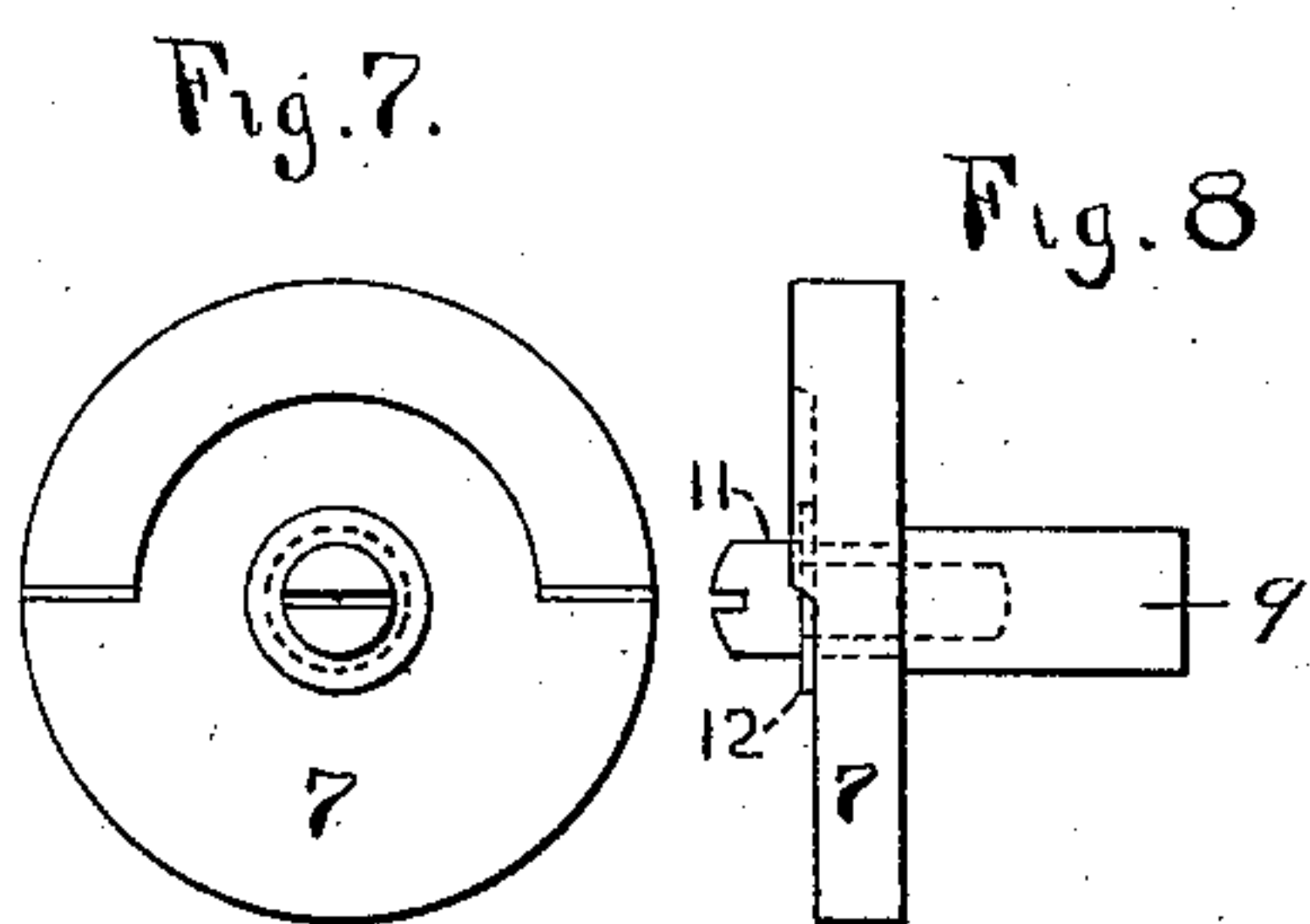
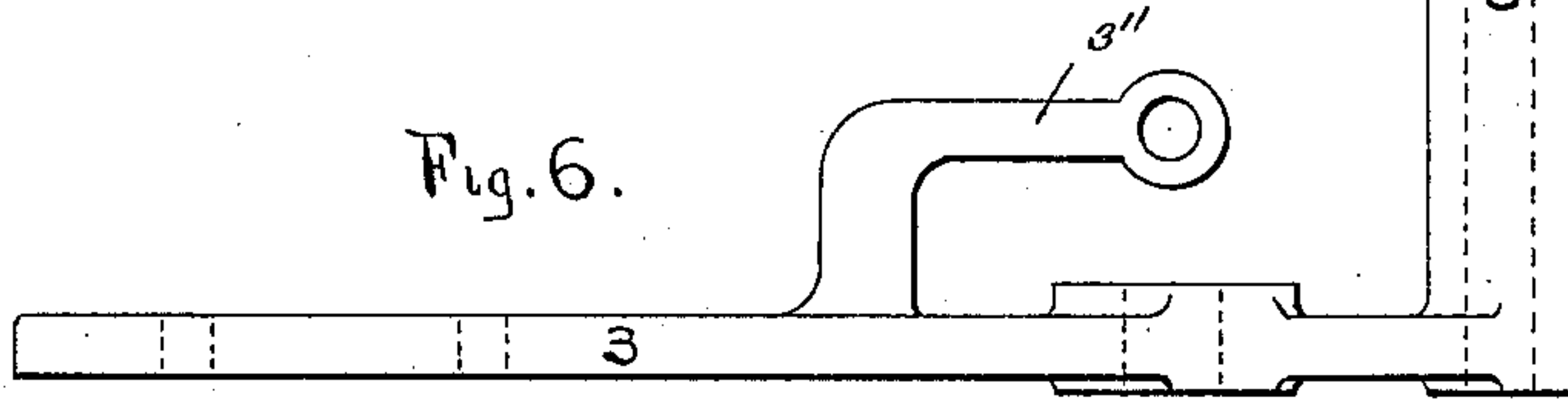
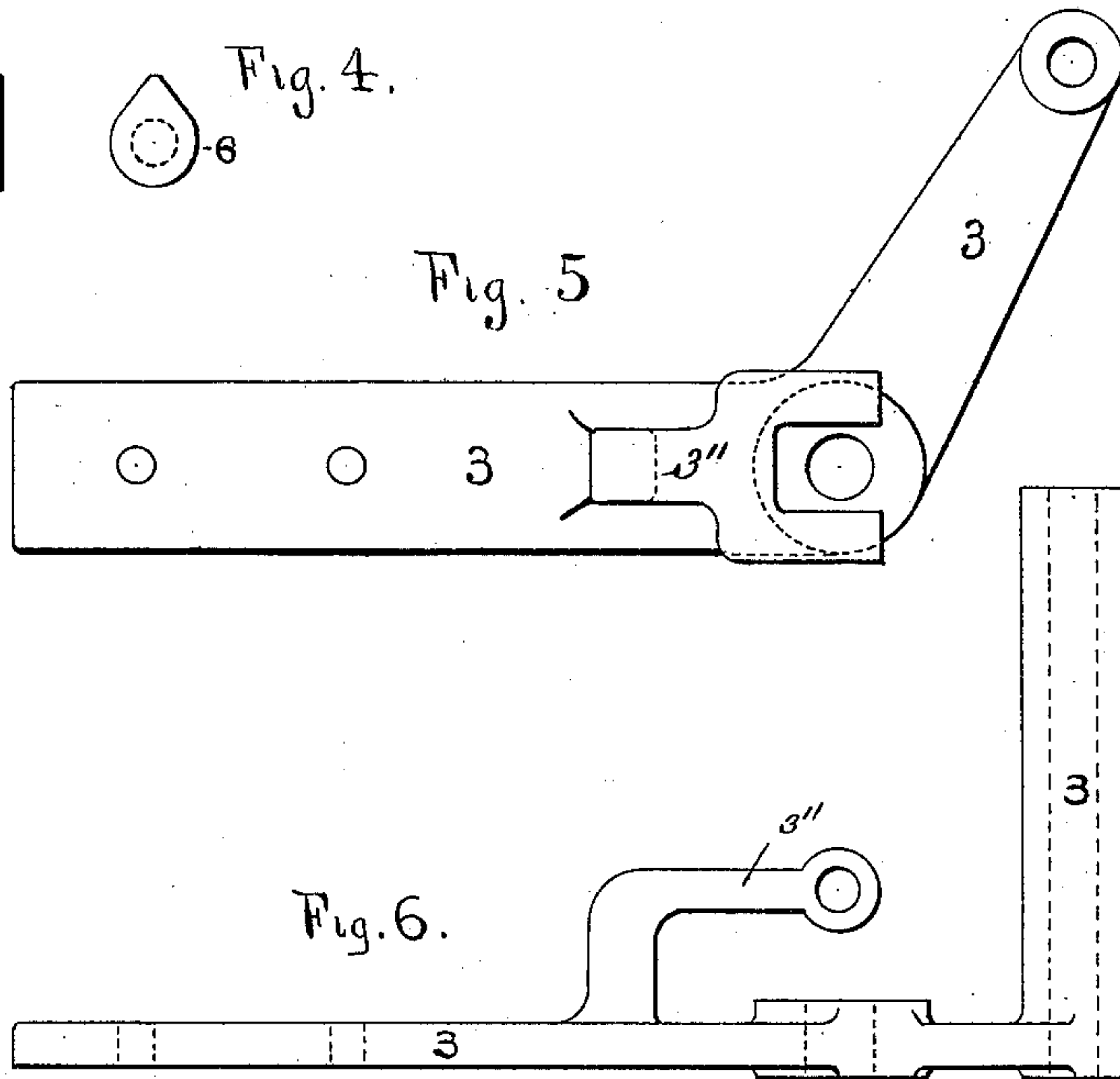
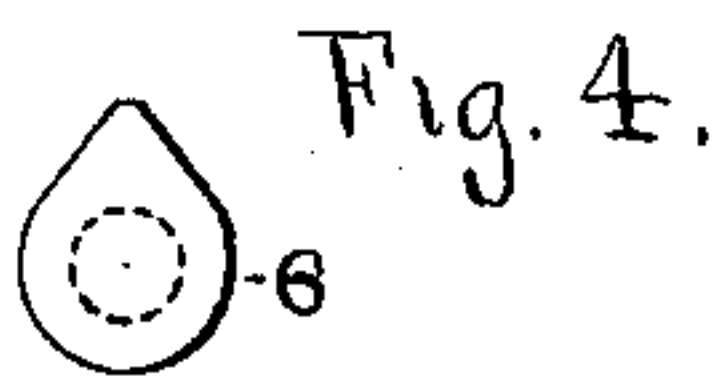
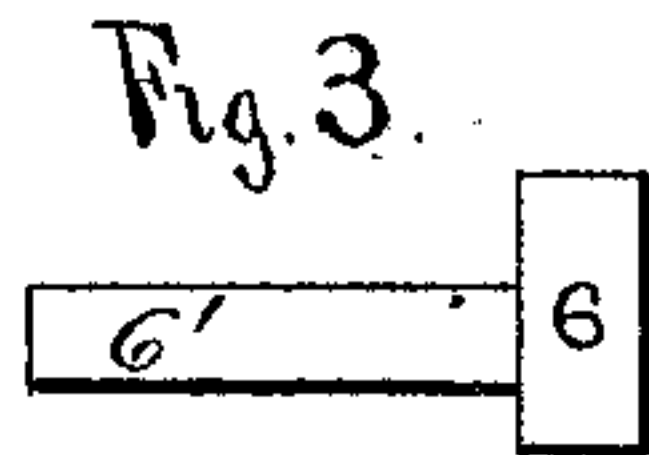
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2 Sheets—Sheet 2.

R. W. PITTMAN.
ENVELOPE AND CARD COUNTING DEVICE.

No. 424,127.

Patented Mar. 25, 1890.



Witnesses.

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UNITED STATES PATENT OFFICE.

REINHARD W. PITTMAN, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE
PLIMPTON MANUFACTURING COMPANY, OF SAME PLACE.

ENVELOPE AND CARD COUNTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 424,127, dated March 25, 1890.

Application filed August 23, 1889. Serial No. 321,780. (No model.)

To all whom it may concern:

Be it known that I, REINHARD W. PITTMAN, of Hartford, in the county of Hartford, State of Connecticut, have invented certain
5 new and useful Improvements in Envelope and Card Counting Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming
10 a part of this specification, and to the figures and letters of reference marked thereon.

My invention relates to that class of envelope and card counting mechanisms in which a carrier moves the cards or envelopes
15 in succession along the receiving-box, the object of the invention being to provide a mechanism which will separate the envelopes into packs, leaving each pack even at the ends and edges in shape to be bound or otherwise
20 disposed of, such mechanism being operated by the articles being counted, whereby when the carrier is moved without a card or envelope the counter will not be operated.

The invention consists in certain novel features of construction and combinations and
25 arrangements of parts, as hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is
30 a side elevation of the counter with the carrier in section. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are side and end elevations, respectively, of the shifting-arm. Figs. 5 and 6 are side and bottom views, respectively, of the main frame. Figs. 7 and 8
35 are end and side elevations of the shifting-cam. Figs. 9 and 10 are top and side views, respectively, of the shifting-blade.

Similar letters and figures of reference in
40 the several figures indicate the same parts.

A A² indicate the receiving-box of an envelope-machine, to the side A of which is secured the frame 3, having an upwardly-extending arm 3' and a laterally-extending arm
45 3'', with bearings in the ends of each, for a purpose to be presently described.

The carrier B, for moving the envelopes along the box, is reciprocated by any well-known or preferred means, and is adapted to
50 carry or push an envelope or card dropped into the position indicated in full lines, Fig.

1, to the position B², (indicated in dotted lines in said figure,) the center of the carrier being cut away or having a notch B' formed therein, which is bridged by the card or envelope,
55 and through which the arms of the operating-wheel 8, journaled in the bearing in the end of arm 3', pass when the carrier is reciprocated without a card or envelope, but which
60 are adapted to engage said card or envelope when in position and cause the wheel to rotate a certain definite portion of a revolution.

The wheel 8 is mounted rigidly on a shaft
10, extending through its bearing in arm 3' and having on the opposite end a pinion
65 2, meshing with the gear-wheel 1, the latter being mounted on a shaft 9, journaled in frame 3, and carrying at its opposite end the shifting-cam 7, adjustably secured thereon by means of the washer 12 and screw 11. This
70 cam 7 is provided in the preferred construction and for the purposes herein contemplated with two parallel faces, one somewhat higher than the other and extending throughout substantially one-half of its face circumference.
75 The shifting-arm 6 is mounted on a vertical shaft 6', journaled in bearings in the bifurcated ends of arm 3'', and rests against the face of the cam, the shifting-blade 4 5 being
80 adjustably connected to said shaft between the bearings by means of the set-screw 13.

The end 5 of the shifting-blades, it will be seen, is at an angle to the base portion, and thus when it has been moved inward by the
85 cam and arm it will stand at an incline with relation to the side A of the receiving-box, forming a deflecting-surface in the path traversed by the envelopes, whereby they are shifted laterally as they are moved forward by the carrier. Thus it is obvious that as
90 the shifting-blade is swung by the articles being moved by the carrier through the medium of the operating-wheel 8, gear-wheels, cam, and connections, as described, it may be caused to shift at any desired and pre-
95 determined time by changing the proportionate number of teeth in the gears, or the position of the cam and blade, to shift a certain definite number of cards or envelopes outward a certain distance, while the remain-
100 ing number are formed in line by the side.

In the construction shown, which is de-

signed to arrange and count the envelopes or cards into packs of twenty-five each, the wheel 8 is provided with five arms, each curved, so that the end thereof only comes in contact with the card or envelope, so as to offer the least possible resistance to the lateral movement of the cards or envelopes, and they may also be provided with anti-friction devices, and the pinion 2 and gear 1 have such a number of teeth, respectively, as will cause them to rotate in the proportion of ten of the pinion to one of the gear. Thus twenty-five envelopes or cards will rotate the gear one-half of a revolution, bringing the cam 7 around and shifting the blade 5 out or in, as the case may be, (see Fig. 2,) when the next twenty-five envelopes will be pushed forward by the carrier in a different line, as will be readily understood by those skilled in the art.

The adjustability of the cam 7 and blade permits the time when the shifting operation takes place to be changed or adjusted to a nicety, and by increasing the number of faces on the cam or the relative speed at which the gears rotate packs may be counted out or separated containing any desired number, and when no cards or envelopes are present on the carrier the arms of wheel 8 pass through the slot or cut portion B' without operating the counter at all, thus insuring the placing of the proper number in each pack even though the feed be intermittent or irregular.

The whole mechanism, it will be seen, is simple and effective and may be applied to machines now in use without altering the same in any material respect, and by properly gaging the width of the notch B' cards or envelopes of most any thickness may be counted, as they are firmly supported on each side of the point where the pressure is brought to bear.

Having thus described my invention, what I claim as new is—

1. In an envelope or card counting machine, the combination, with the carrier, of a wheel having arms projecting in the path of the envelopes or cards therein, and a movable blade, and connections, substantially as described, between the wheel and blade, whereby the

blade is controlled by said wheel to guide the envelopes in different lines, substantially as described.

2. In an envelope or card counting machine, the combination, with the carrier and wheel having arms projecting in the path traversed by the envelopes or cards on the carrier, of the blade for guiding the same in different lines and the cam for operating said blade in gear with the wheel, substantially as described.

3. In an envelope-counting machine, the combination, with the reciprocating carrier and operating-wheel having arms projecting in the path of the envelopes or cards on the carrier, of the shifting-blade for guiding the envelopes in different lines, the shifting-arm, its operating-cam, and gearing connecting said cam and operating-wheel, substantially as described.

4. In an envelope or card counting machine, the combination, with the reciprocating carrier and operating-wheel having arms projecting in the path of the envelope or card on the carrier, of the shifting-blade for guiding the envelopes in different lines, the shifting-arm, the cam having the parallel faces, the gear-wheel connected to said cam, and the pinion on the operating-wheel shaft gearing therewith, substantially as described.

5. In a card-counter, the combination, with the frame 3, having bearings therein, of the shifting-blade journaled in said frame, the gear-wheel and cam, and the operating-wheel, also journaled in said frame and having the arms projecting in the path of the envelopes on the carrier, substantially as described.

6. In a card or envelope counter, the combination, with mechanism for shifting the cards or envelopes laterally, of a counting-wheel having projecting arms curved so that the ends thereof only come in contact with the cards or envelopes to permit of the free lateral movement of the same, substantially as described.

REINHARD W. PITTMAN.

Witnesses:

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