

No. 677,594.

Patented July 2, 1901.

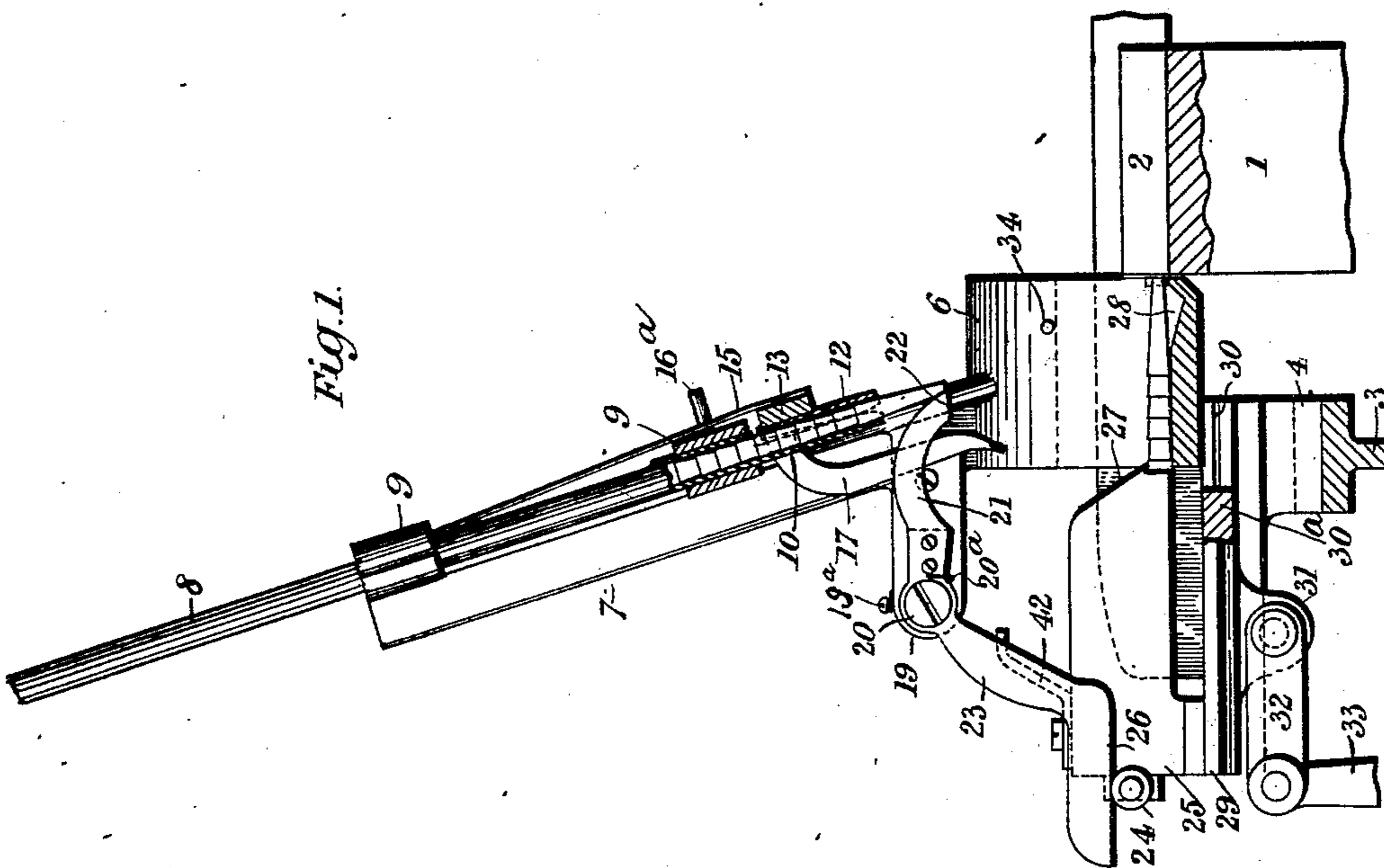
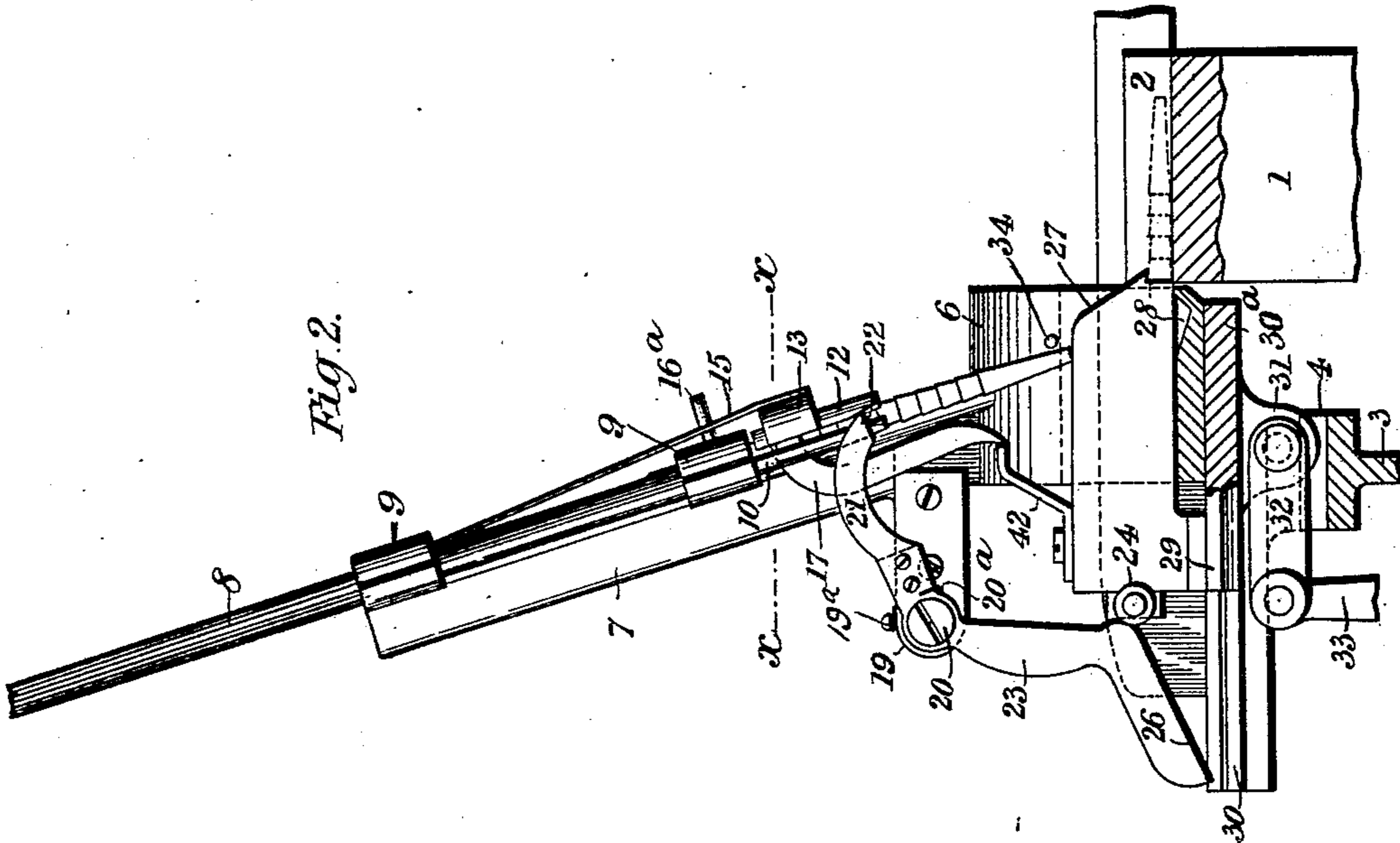
E. T. POLLARD.

MACHINE FOR PACKING CIGARETTE MOUTHPIECES.

(Application filed Sept. 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.

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Fig. 4.

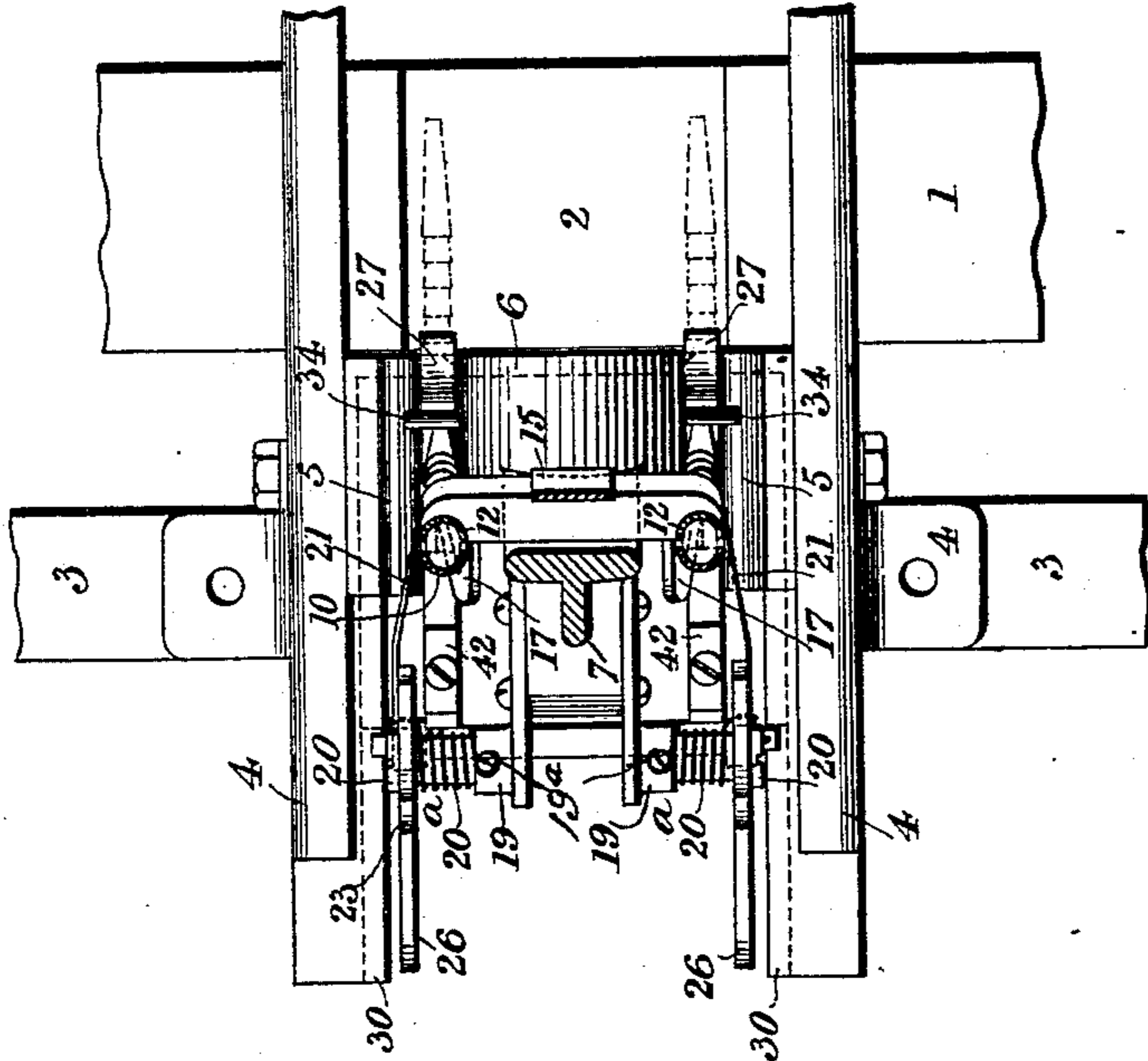
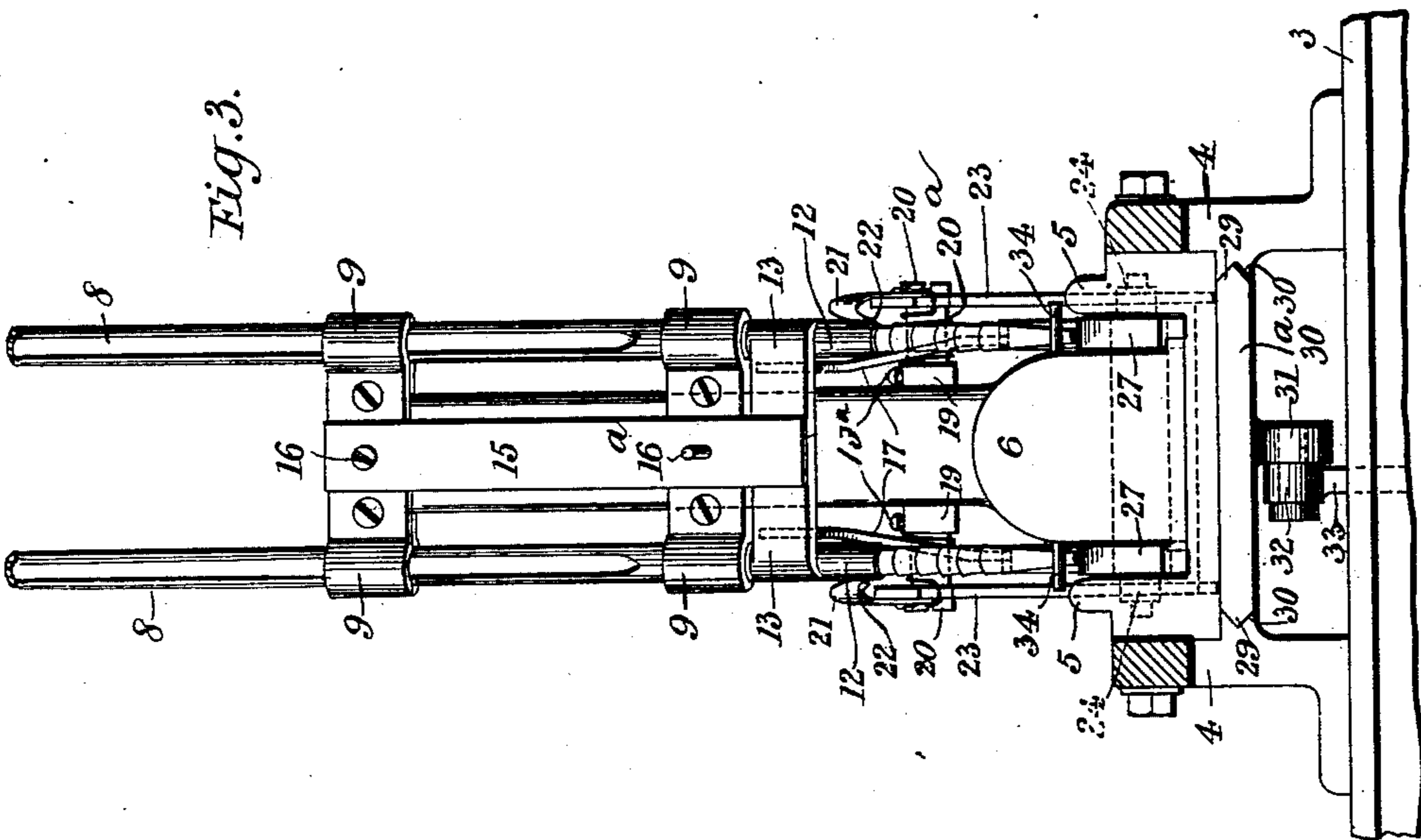


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD THOMAS POLLARD, OF LONDON, ENGLAND, ASSIGNOR TO
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MACHINE FOR PACKING CIGARETTE-MOUTHPIECES.

SPECIFICATION forming part of Letters Patent No. 677,594, dated July 2, 1901.

Application filed September 18, 1900. Serial No. 30,446. (No model.)

To all whom it may concern:

Be it known that I, EDWARD THOMAS POLLARD, a citizen of the United States, residing at London, England, have invented a certain
5 new and useful Improvement in Machines for Packing Cigarette-Mouthpieces, of which the following is a specification.

This invention relates to an improvement in machines for packing mouthpieces in the
10 same box with "cigarettes," in which term is included small cigars, such mouthpieces being usually of stiffened paper having a waxed end.

The invention consists of an arrangement
15 of parts adapted to be applied to a cigarette-packing machine (though it may also be operated independently) by which a regulated number of mouthpieces can be introduced into the body of the box, which is usually of
20 the slide form.

One arrangement of parts forming a machine in accordance with this invention is illustrated in the accompanying drawings, in which—

25 Figure 1 is an elevation, partly in section, showing the machine about to deliver the mouthpieces. Fig. 2 is also an elevation, partly in section, showing the mouthpieces delivered. Fig. 3 is a front elevation of Fig.
30 2, and Fig. 4 is a plan of Fig. 2 on line *x x*.

The apparatus is shown as applied to a machine for filling slide cases or boxes with cigarettes, 1 being a wheel or disk having a series of receptacles 2 in its periphery for containing the open slide-cases, such wheel or disk and its cases passing in front of a plunger, which forces the desired number of cigarettes into same. In the present arrangement where it is desired to add to such cigarettes in the slide a certain number of mouthpieces the machine is situated opposite some convenient point on the disk, so that the mouthpieces may be pushed in the slide either before or after the cigarettes have been filled
40 therein. In this form of the machine there is a suitable frame 3, carrying two brackets 4 4, in which is a channel-piece 5, Figs. 3 and 4, having in the center a dome-shaped bracket or support 6, connected to which is an upright
45 web 7. In the present instance the machine is arranged to divide the number of mouth-

pieces supplied, so as to place one-half in each side of the box, so that many of the parts are duplicated. The web 7 carries two sloping tubes 8 8, preferably open in front of a
55 portion of their length, as shown in Fig. 3, such tubes loosely carrying the mouthpieces, each tube being held to the web by collars 9 9. From the lower collar 9 to the end of the tube the latter is cut away to leave a back portion
60 only, as shown at 10, and the front portion in each is replaced by a similarly-shaped section of tube 12, these two sections being attached to or formed as one with a bar 13, on which presses a spring 15, secured to the web 7 by a
65 screw 16 and guided by a pin 16^a or held in other ways. Hence the sections 12 form a yielding continuation of the upper faces of the tubes. The sections 10 and 12 when close
70 together form an elliptical passage for the mouthpieces, as shown in Fig. 4, so that they may be slightly compressed when nipped therein, and exteriorly both are tapered or chamfered at the ends. The bar 13 carries
75 two depending arms 17 17.

The upright 7 carries two bosses 19 19, Fig. 4, each supporting a screw 20, loosely mounted on which by means of a sleeve 20^a are cranked arms, the upper ends of which, 21, have thin almost knife-like edges 22, which
80 are adapted to rub against the sides of the parts 10 12 of the tubes 8, while the lower ends 23 are adapted to be struck by a roller 24 or pin carried by a sliding plunger 25. Each sleeve 20^a has a spring coiled around it,
85 one end of which bears on the part 21 of the cranked arm, and the other hooks onto and is secured by a screw 19^a on the boss 19, so as to restore the arms when they have been pushed back by the plunger. The parts 23
90 have a long face 26 on the inside of same, which is adapted to come in contact with the roller or pin 24, so that the plunger may have a sufficiently long rearward movement without passing the end of such arm. The plun-
95 ger at its front portion is forked and is also provided with two sloping noses 27, which move in the space formed between the sides of the bracket 6 and of the channel-piece 5 and into which space the mouthpieces are
100 allowed to drop from the tubes 8. To catch these mouthpieces and to direct their fall

backwardly into the space provided for them, the bottom of such space is notched, as at 28, Figs. 1 and 2. The plunger is guided by angular ribs 29 29 at its sides, which slide in corresponding grooves 30 in the brackets 4, and by a lower projecting part 30^a, which passes under the bottom of the channel-piece 5, and to which part an eye 31 is attached, adapted to pivotally carry a link 32, pivoted to a lever 33, which is operated from some suitable moving part of the cigarette-packing machine or otherwise operated. The plungers 25 also carry arms 42 on the upper sides of same.

At right angles to the bracket 6 and projecting therefrom are pins 34, so that when the mouthpieces are brought down and rest in the notches 28 they are prevented from tipping forward instead of backward, as they are intended to do.

In operation the mouthpieces fall down the tubes and rest on the top of the plungers or into the position shown in Fig. 2, the yielding sections 12 having been first opened slightly to allow them to pass into this position by the forward pressure of arms 42 on arms 17. The plunger 25 now begins to move back, and the arms 42 leave the arms 17, so that the mouthpieces above those that have fallen out of the tube are gripped by the part 12. The pin 24 moves accordingly the arms 23, the knife-edges 22 on the upper part 21 of which thus begin to move down the sides of the parts 10 12 until they touch the upper edge of the last mouthpiece that has left the tube, or the fifth one in the arrangement shown. This movement is of course repeated on the other side with a further five mouthpieces, which thus fall down in front of the sloping noses 27 of the plungers and gradually fall backward into the space intended for them until the parts are brought into the position shown in Fig. 1, with the mouthpieces lying in front of the noses 27. The forward movement of the plunger now pushes the two lots of five mouthpieces forward into the cigarette-box into the position shown in Fig. 2,

when the operation is repeated by the arms 42 striking arms 17 and letting a further lot of five mouthpieces fall from each tube onto the tops of the plungers.

What I claim is—

1. In a machine for packing cigarette-mouthpieces, the combination with a tube for holding such mouthpieces, of a spring-pressed part for gripping same therein, a plunger, means carried by same for releasing the gripping means, an arm, means for pivotally carrying same on the machine, a knife-edge on one end of said arm adapted to act on the mouthpieces released by the spring part, and a part carried by the plunger adapted to strike the other end of said arm in the rearward movement of the plunger, so that the mouthpieces are knocked off by the knife-edge in front of the plunger ready for its forward delivering movement.

2. In a machine for packing cigarette-mouthpieces and in combination, a plunger, a part having a space through which the plunger works, a notch in the passage-way so formed and means for delivering the mouthpieces onto said notch whereby they are directed in their fall.

3. In a machine for packing cigarette-mouthpieces and in combination, a tube for holding the mouthpieces having means for holding the mouthpieces at the discharging end, a spring for operating same in one direction, an arm carried by the holding means, a plunger for discharging the released mouthpieces, and a part carried by the plunger adapted to strike the arm and release the pressure on the mouthpieces when the plunger is in line with the tube so that the mouthpieces fall on said plunger.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWARD THOMAS POLLARD.

Witnesses:

EDWIN LONG,

ALLEN PARRY JONES.