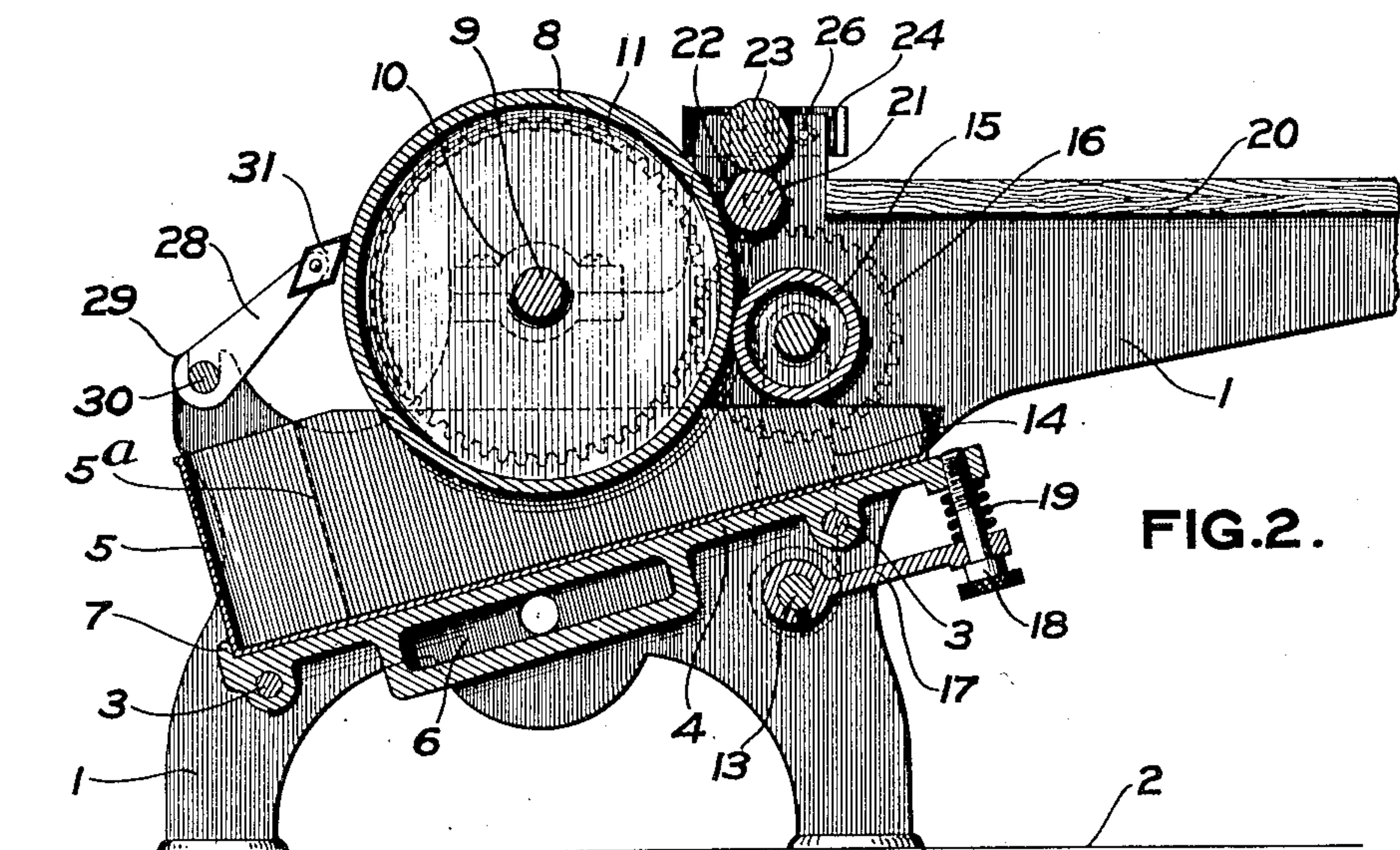
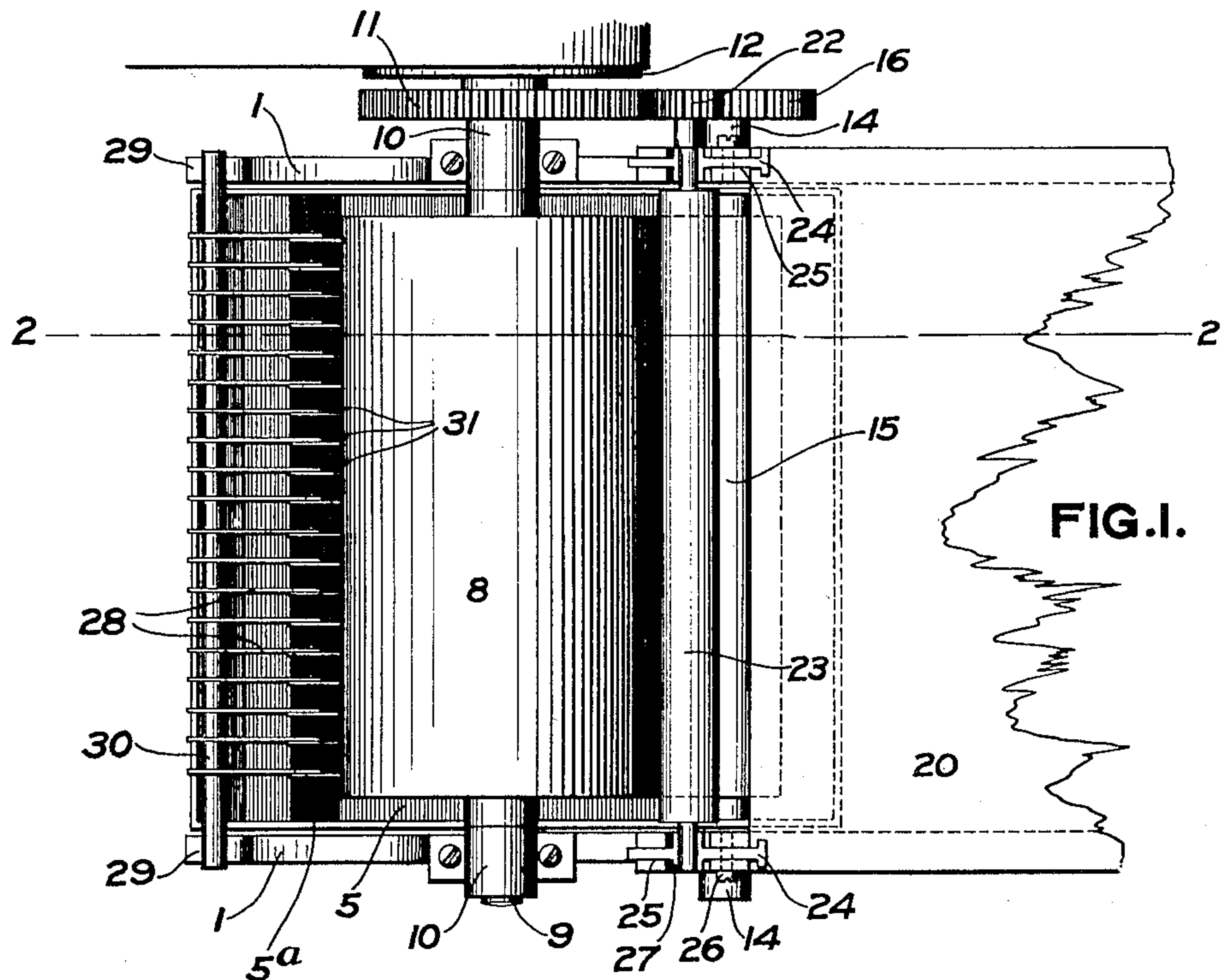


W. F. MORSE.
GLUING MACHINE.
APPLICATION FILED APR. 15, 1907.

920,367.

Patented May 4, 1909.
2 SHEETS—SHEET 1.



WITNESSES:
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INVENTOR:
William F. Morse
by Osmond & Davis
his attorneys

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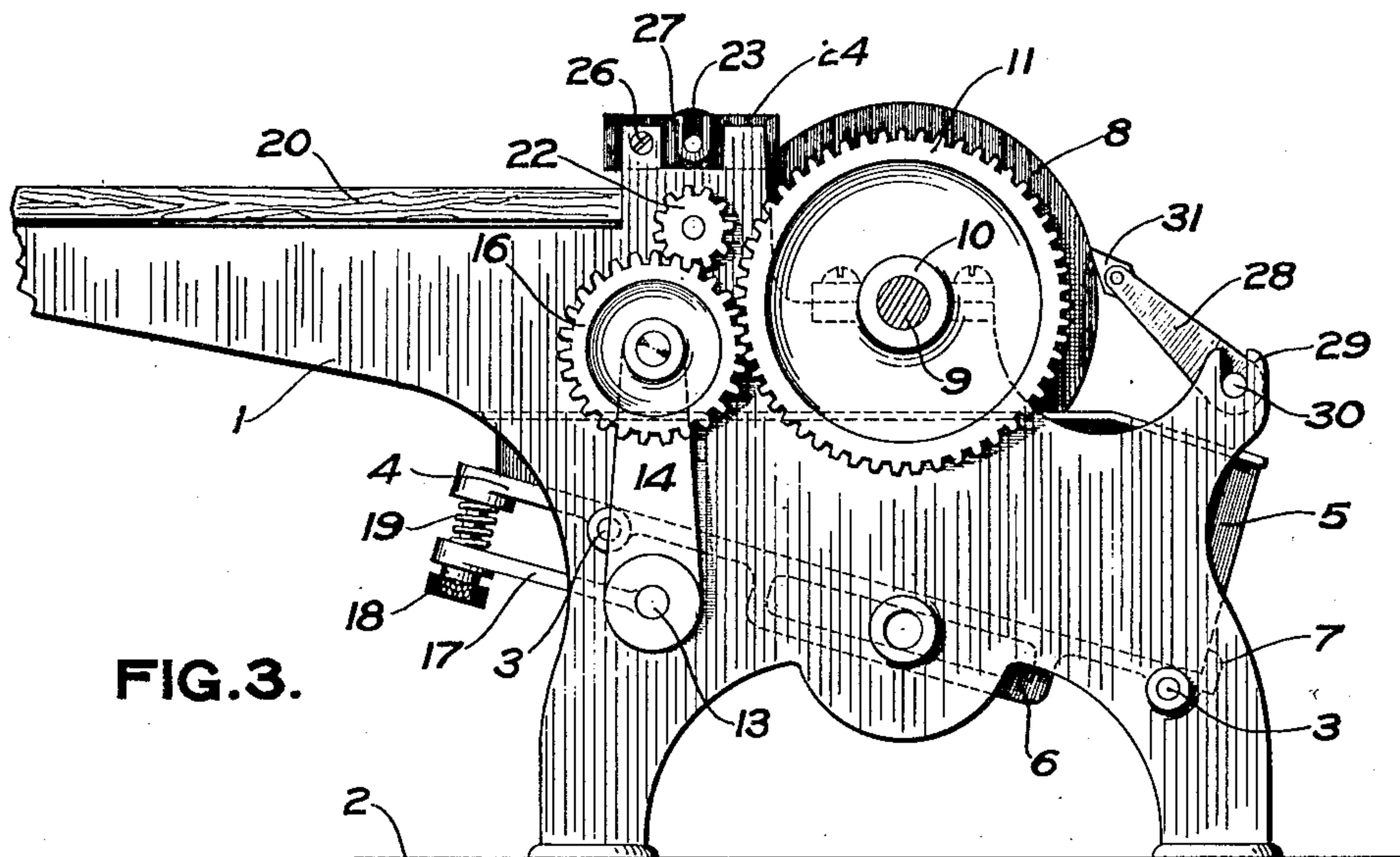


FIG. 3.

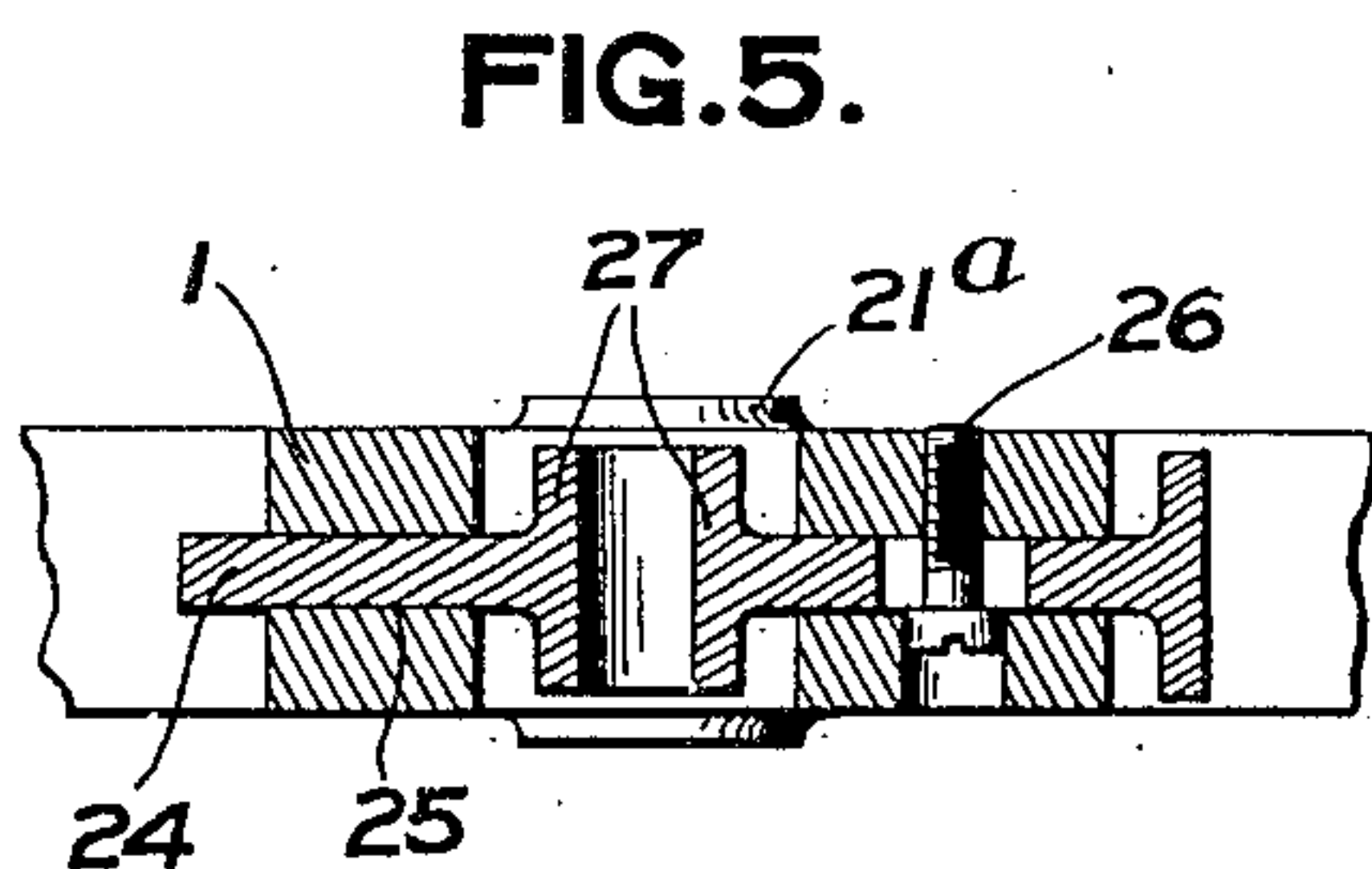


FIG. 5.

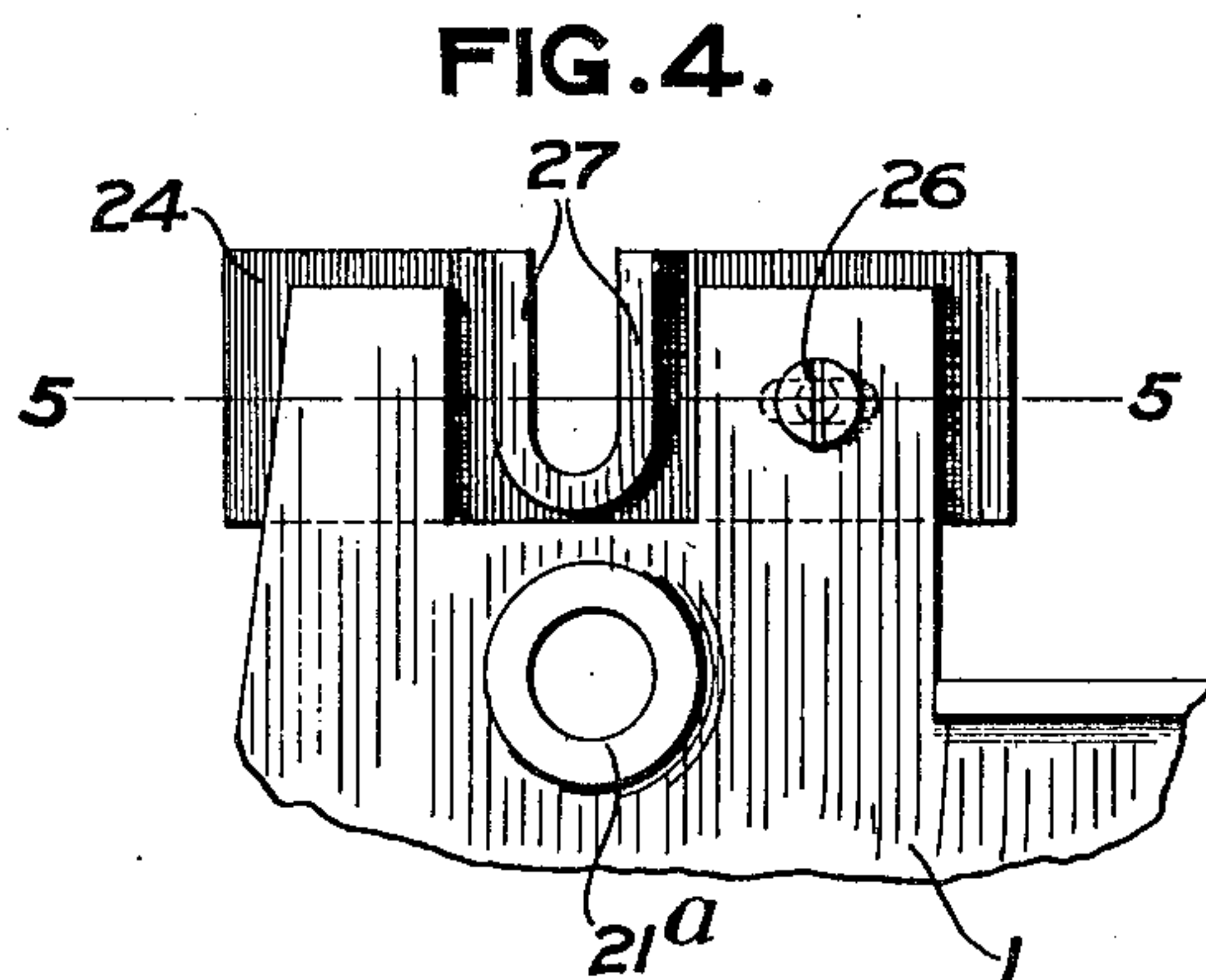


FIG. 4.

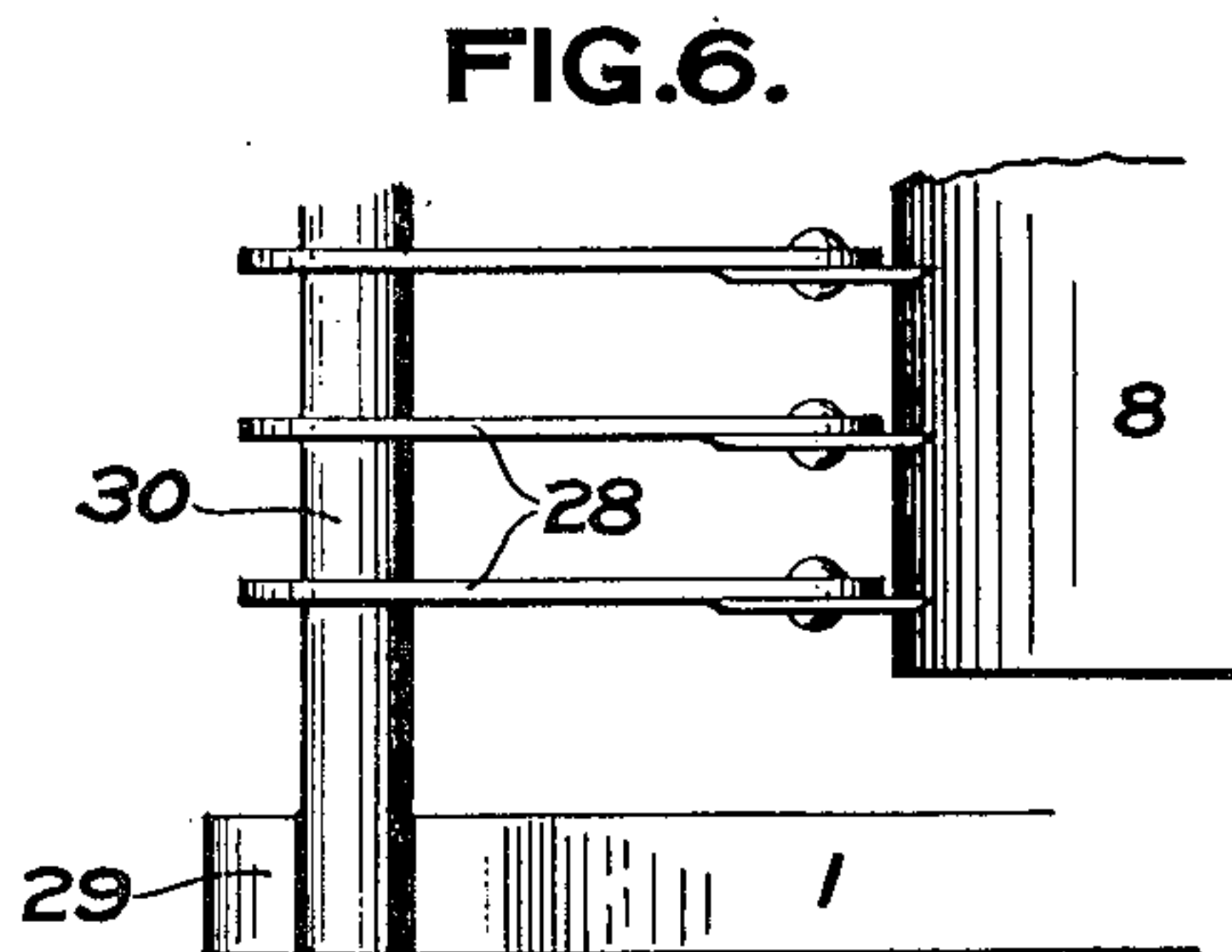


FIG. 6.

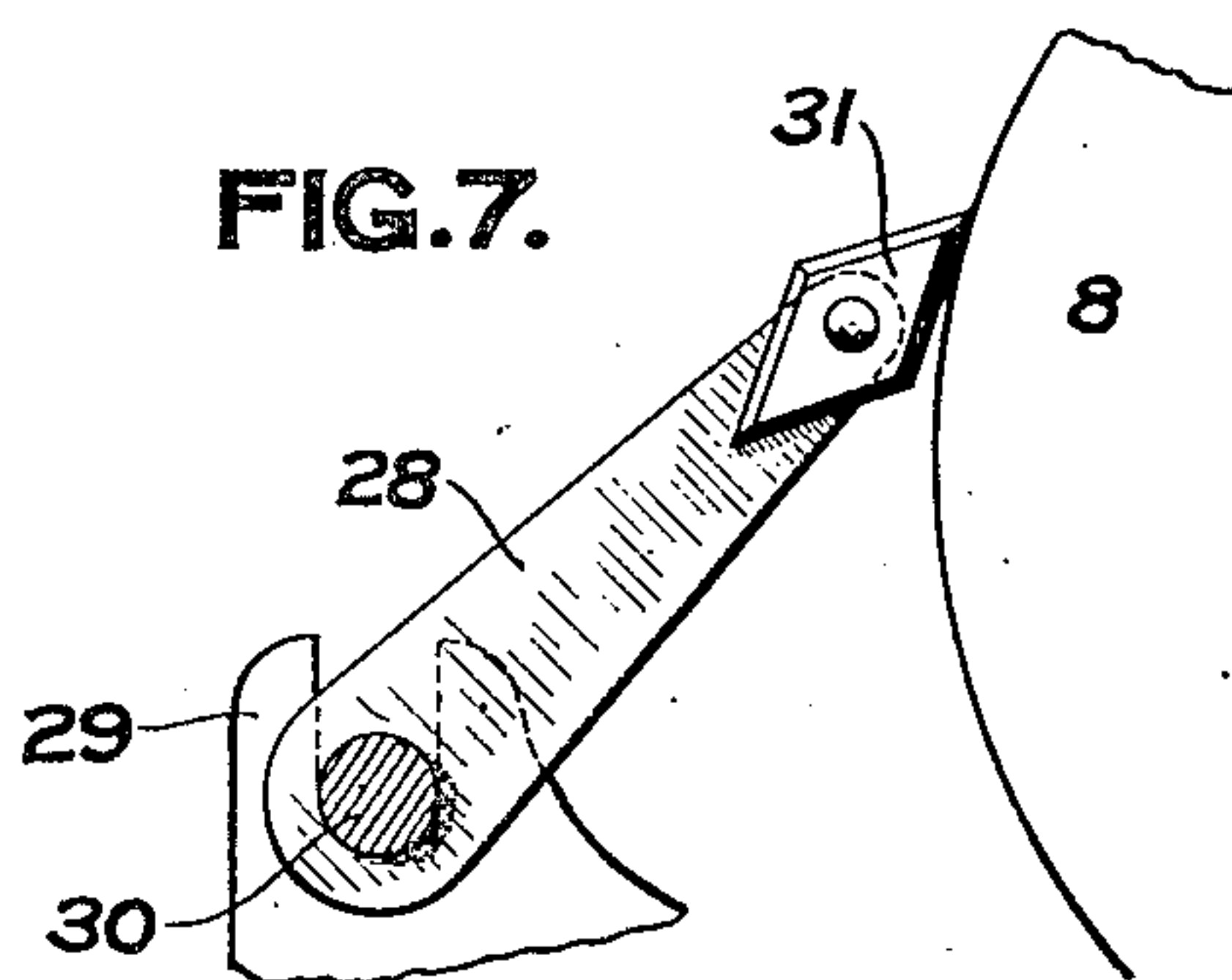


FIG. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM F. MORSE, OF ROCHESTER, NEW YORK, ASSIGNOR TO SAMUEL R. PARRY, OF ROCHESTER, NEW YORK.

GLUING-MACHINE.

No. 920,367.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed April 15, 1907. Serial No. 368,439.

To all whom it may concern:

Be it known that I, WILLIAM F. MORSE, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Gluing-Machines, of which the following is a specification.

This invention relates to gluing machines, and more particularly to machines for applying glue to one side of a sheet of paper, like a label.

The object of the invention is a device of few wearing parts, and which is readily accessible for cleaning.

The novel features of the machine will be disclosed in the course of its description.

In the drawings: Figure 1 is a plan view of the gluer; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is an elevation viewed in the opposite direction to Fig. 2; Fig. 4 is an elevation of a detail; Fig. 5 is a section on the line 5—5 of Fig. 4; Fig. 6 is a partial top plan view of a detail (enlarged); and Fig. 7 is an elevation of the parts shown in Fig. 6.

The gluing apparatus is attached to a pair of side-frames 1, 1, which are screwed to a table top 2. Said frames are held rigidly together by bolts 3, which pass through lugs in an inclined plate 4. The latter forms a support for a wedge-shaped glue-pan 5, and also for a steam-box 6, whereby the glue contained in said pan may be heated. The pan 5 is prevented from sliding down off the plate 4 by an upwardly projecting lug 7.

The glue-roll 8 is supported horizontally on a shaft 9, which is revoluble in bearings 10. Said shaft carries, outside of the frame 1, a gear 11 and a driving pulley 12. The roll 8 is so proportioned as to dip into the glue contained in the pan 5.

A rock-shaft 13 is supported horizontally in the frames 1 beneath the plate 4, and an arm 14 is fixed to each end of said shaft. A wiping-roller 15 is revolubly supported in the upper ends of the arms 14, and carries upon its shaft a gear 16, that is smaller than the gear 11, and meshes with it. An arm 17 is also fixed to the shaft 13, midway between the frames 1, and approximately parallel to the plate 4. A thumbscrew 18 extends through the outer end of said arm, and enters the said plate 4. A spring 19 is coiled about the shank of the thumbscrew 18, and

tends to force the arm 17 downward. Accordingly, by turning the thumbscrew 18 to the right, the arm 17 will be lifted, thereby rocking the shaft 13 and moving the arms 14 forward, so that the wiping-roller 15 is brought very close to or into actual contact with the glue-roll 8. On turning the thumbscrew 18 in the opposite direction, that is to the left, the spring 19 forces the arm 17 downward, and the wiping-roller 15 is thus moved away from the glue-roll 8. If the thumbscrew is turned sufficiently the gear 16 is thrown entirely out of mesh with the gear 11.

The rolls 8 and 15 turn as shown by the arrows, and their adjacent peripheries therefore both move in the same direction. The gears 11 and 16 are, however, so proportioned that the roll 8 turns faster than the roller 15, and so the latter acts as a wiper, holding back surplus glue that adheres to the surface of the roll 8.

The feed-rolls over which the labels, etc. are passed to the glue-roll 8 are supported in alinement with the top of a feed-table 20. The lower feed-roll 21 is revoluble in fixed bearings 21^a, and carries on its outer end a pinion 22, which engages the gear 16. The upper feed-roll 23 is supported in plates 24, 24, which lie, respectively, in grooves 25, 25, in the side-frames 1, 1. Said plates may be moved backward or forward independently of each other, and, respectively, secured in the desired position by bolts or screws 26, 26. The feed-roll 23 is therefore adjustable in the horizontal plane, for the purpose of determining the angle at which the label shall approach the glue-roll 8. The said roll 23 lies within the open vertical guide-ways 27 (Fig. 4), and rests upon the roll 21, so that it is rotated by the latter.

Labels or other papers when pushed along the table 20 enter between the feed-rolls 21 and 23, and are fed by them onto the glue-roll 8. The pinion 22 is so proportioned that the peripheral speed of said feed-rolls is less than that of the glue-roll, and thus the paper is retarded, and the glue is distributed very evenly over its surface.

A number of pickers 28 are arranged to separate the label from the glue-roll as it is carried over on the top of the latter. Said pickers consist of bars, pivoted on a rod 30 which rests in suitable supports 29, 29 in the

side-frames 1, 1, respectively. Each bar 28 has at its upper end a diamond-shaped piece 31, which has a knife-edge at each end, and can be reversed when one edge grows dull.

5 The glue-pan 5 is made in the form shown in Fig. 2 so that it may be easily removed for cleaning. To remove said pan, its lower end is lifted up sufficiently to clear the lug 7, when the pan may be withdrawn, the rear
10 end being shallow enough to pass under the glue-roll 8.

Another advantage in having the glue-pan in an inclined position is that the glue is kept in motion and prevented from settling or
15 solidifying, for the movement of the roll 8 tends to push the upper strata of glue up the incline, which in turn causes the lower strata to move downward, a constant circulation being thus maintained.

20 When the glue is used up to such an extent that the roll 8 no longer touches it, the pan 5 may be moved up along the plate 4, and will be held in place by the roughness of said plate, or suitable means. The level of the
25 glue is thus capable of being raised with reference to the roll 8.

If desired, a screen 5^a may be placed in the pan 5, to strain sediment out of the glue. Again, fresh glue may be poured into the pan
30 without removing the latter from its support, but to do this the pickers 28 must be thrown forward, and the glue poured between the rod 30 and the roll 8.

What I claim is:—

1. In a gluing machine, the combination 35 of a suitable frame; a glue-roller journaled therein; a rock-shaft parallel with said glue-roller, having an upwardly extending arm at each end, and the outwardly extending arm 17 between them; a wiping-roller rotatively 40 supported in said upwardly extending arms, adapted to engage the glue-roller; and an adjustable connection between a fixed part of the machine and said intermediate arm 17 on the rock-shaft for adjusting the wiping-roller 45 with reference to the glue-roller consisting of the thumb screw 18 and the spring 19; substantially as shown and described.

2. In a gluing machine, the combination of a suitable frame; a glue-roller journaled 50 therein; a pair of feed rollers both parallel with said glue-roller, consisting of a lower roller that is revolubly supported in fixed bearings, and an adjustable upper roller; a plate 24 at each end of said upper roller, 55 slotted vertically to receive and support it revolubly, and in turn contained, respectively, within parallel grooves 25, 25 in the frame, whereby said plates are horizontally adjustable with reference to the glue roller; 60 and means for securing them in position; substantially as shown and described.

WILLIAM F. MORSE.

Witnesses:

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