

No. 860,148.

PATENTED JULY 16, 1907.

K. OTTING.
LABELING MACHINE.
APPLICATION FILED DEC. 6, 1906.

3 SHEETS—SHEET 1.

Fig. 1a.

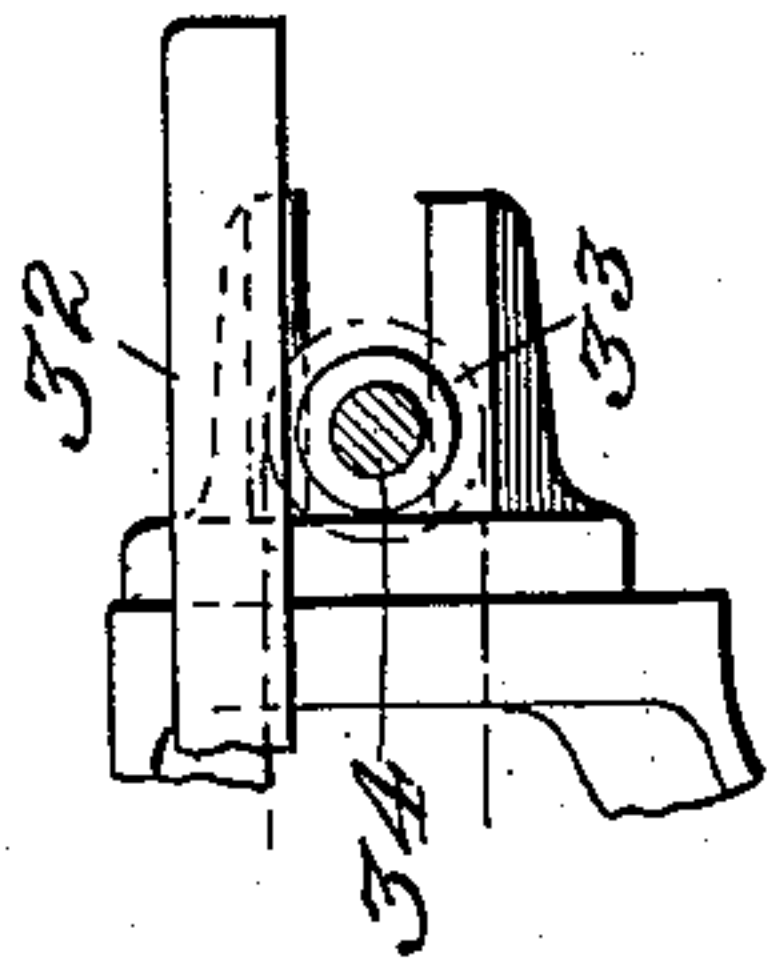
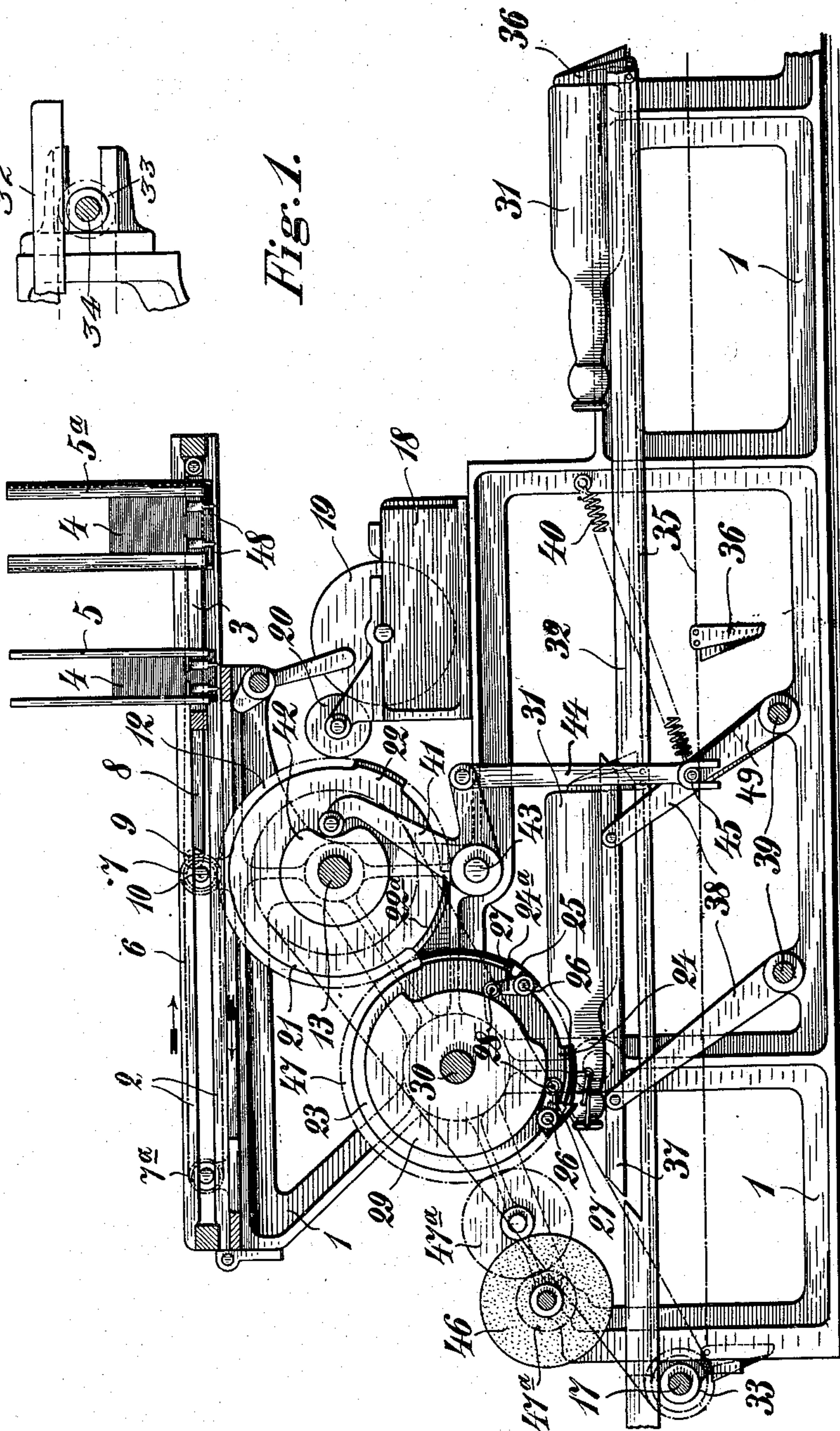


Fig. 1.



Witnesses:
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Inventor:
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by his attorney
Draup & Bienen

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3 SHEETS—SHEET 2.

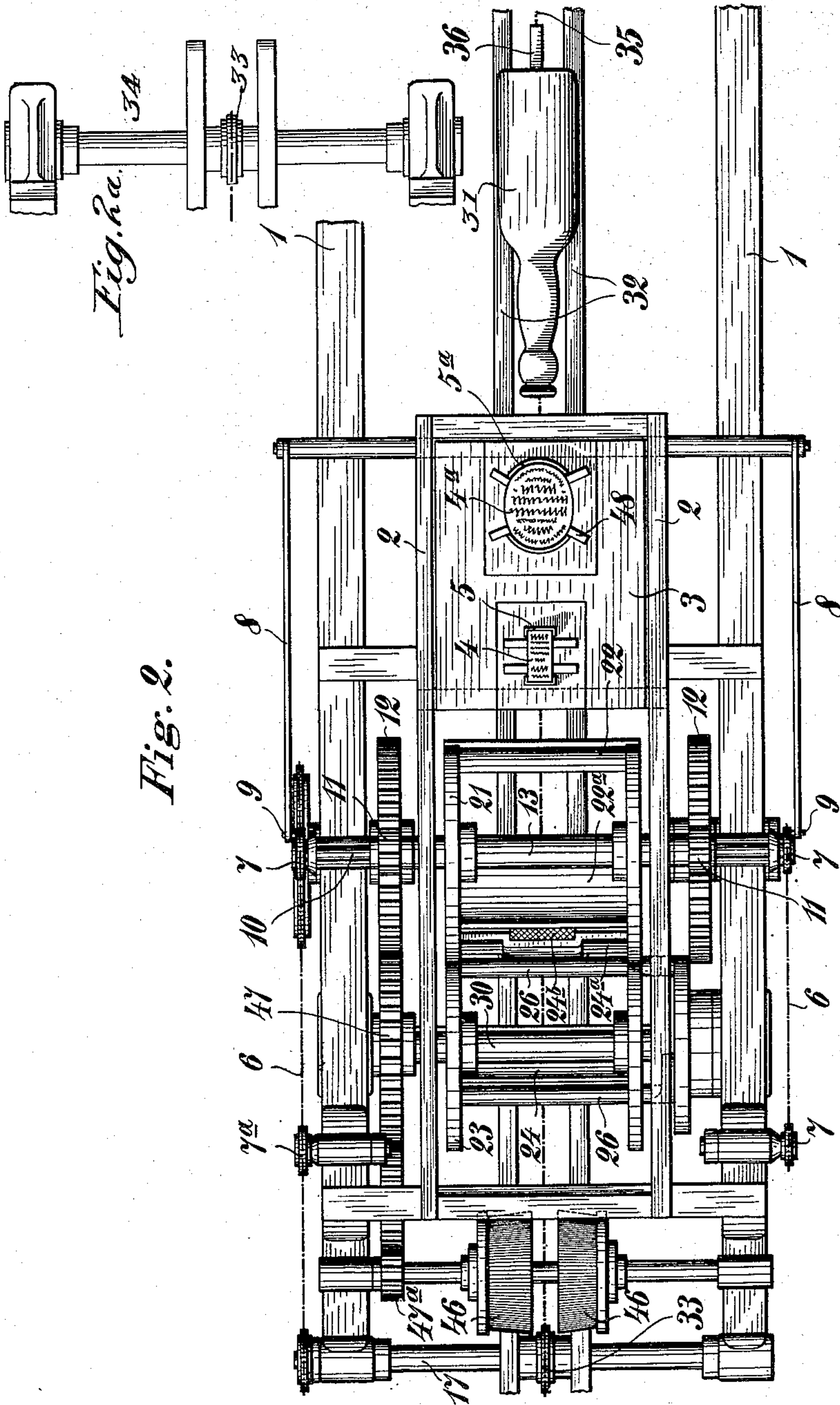


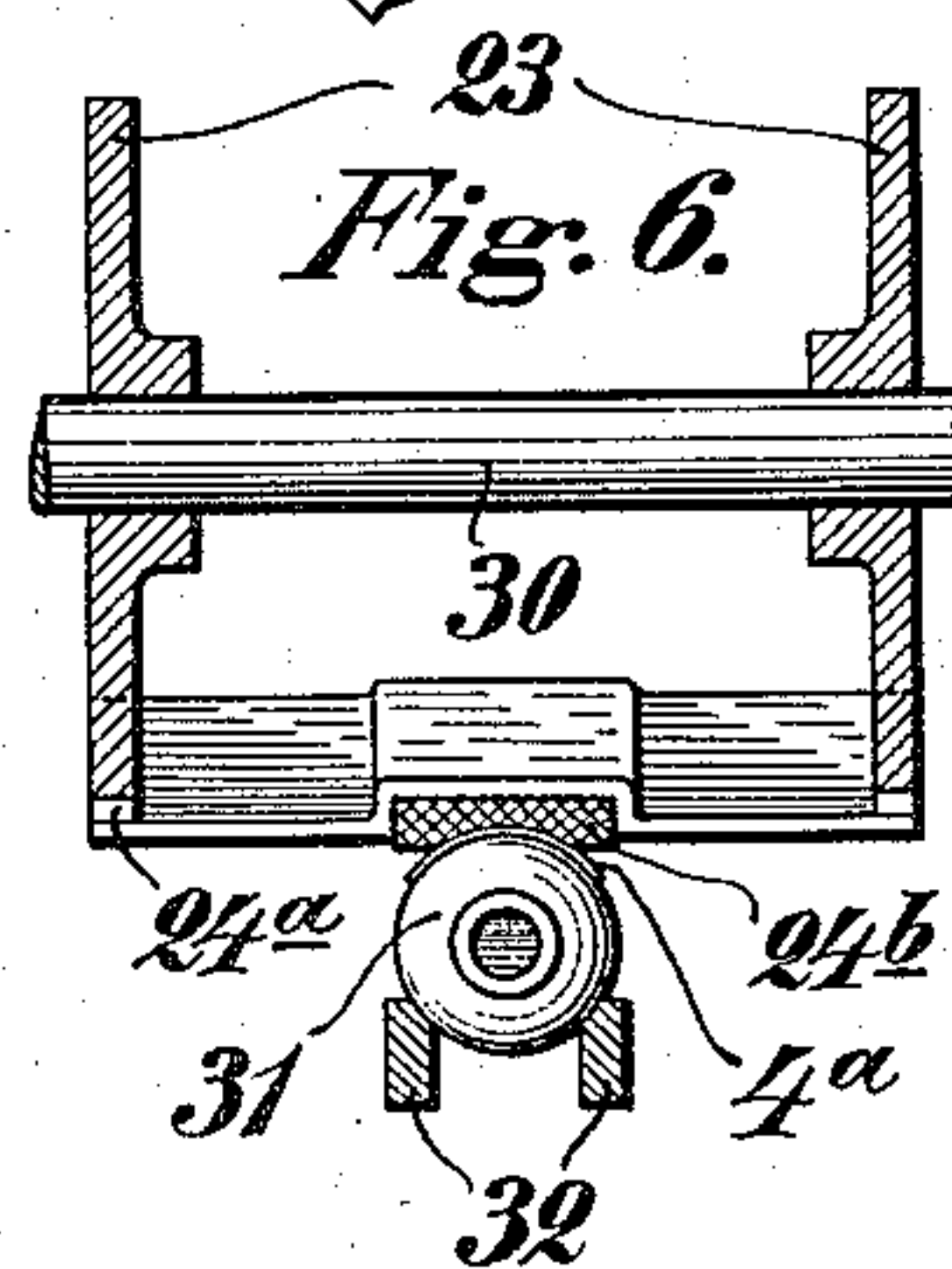
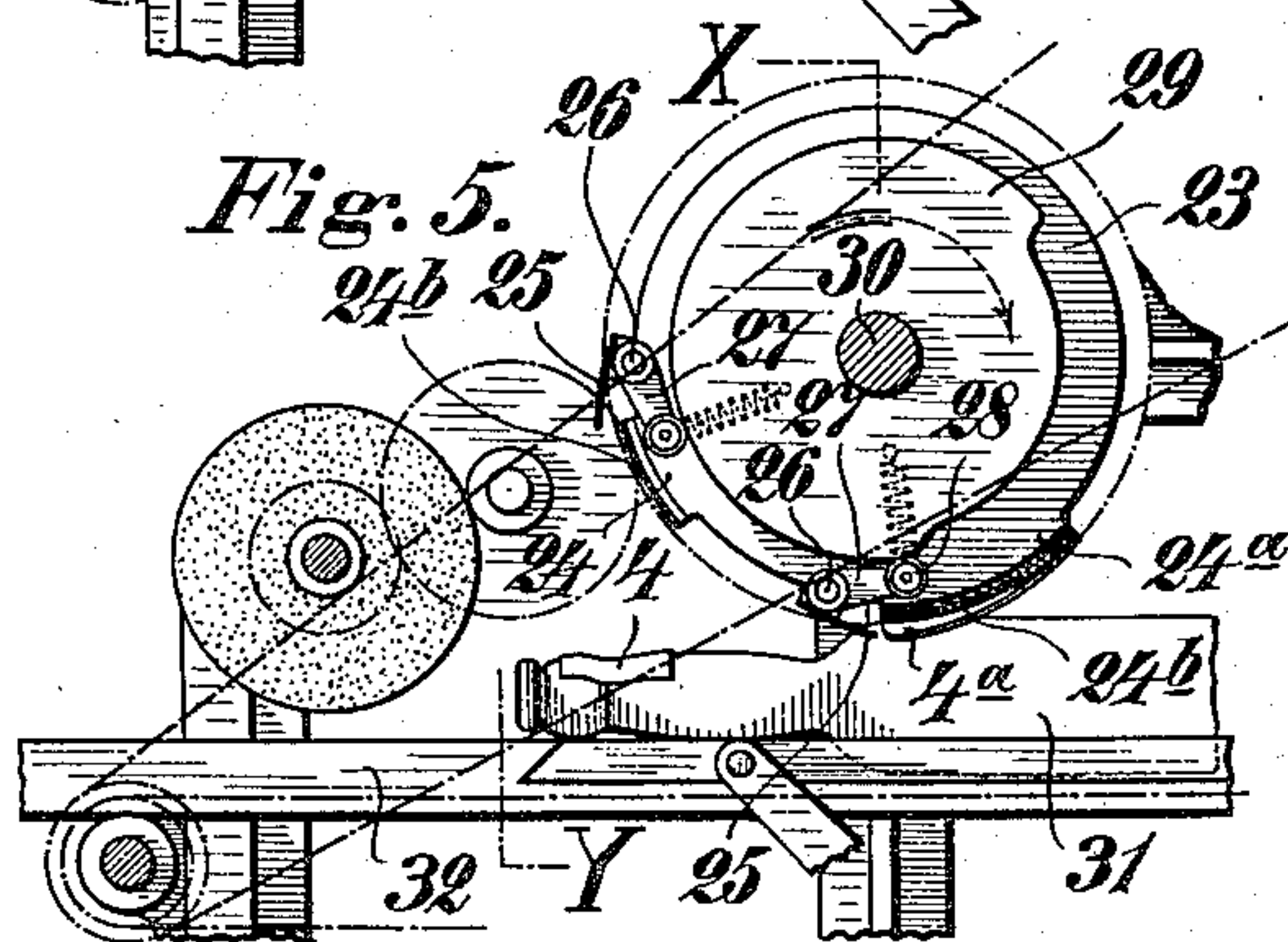
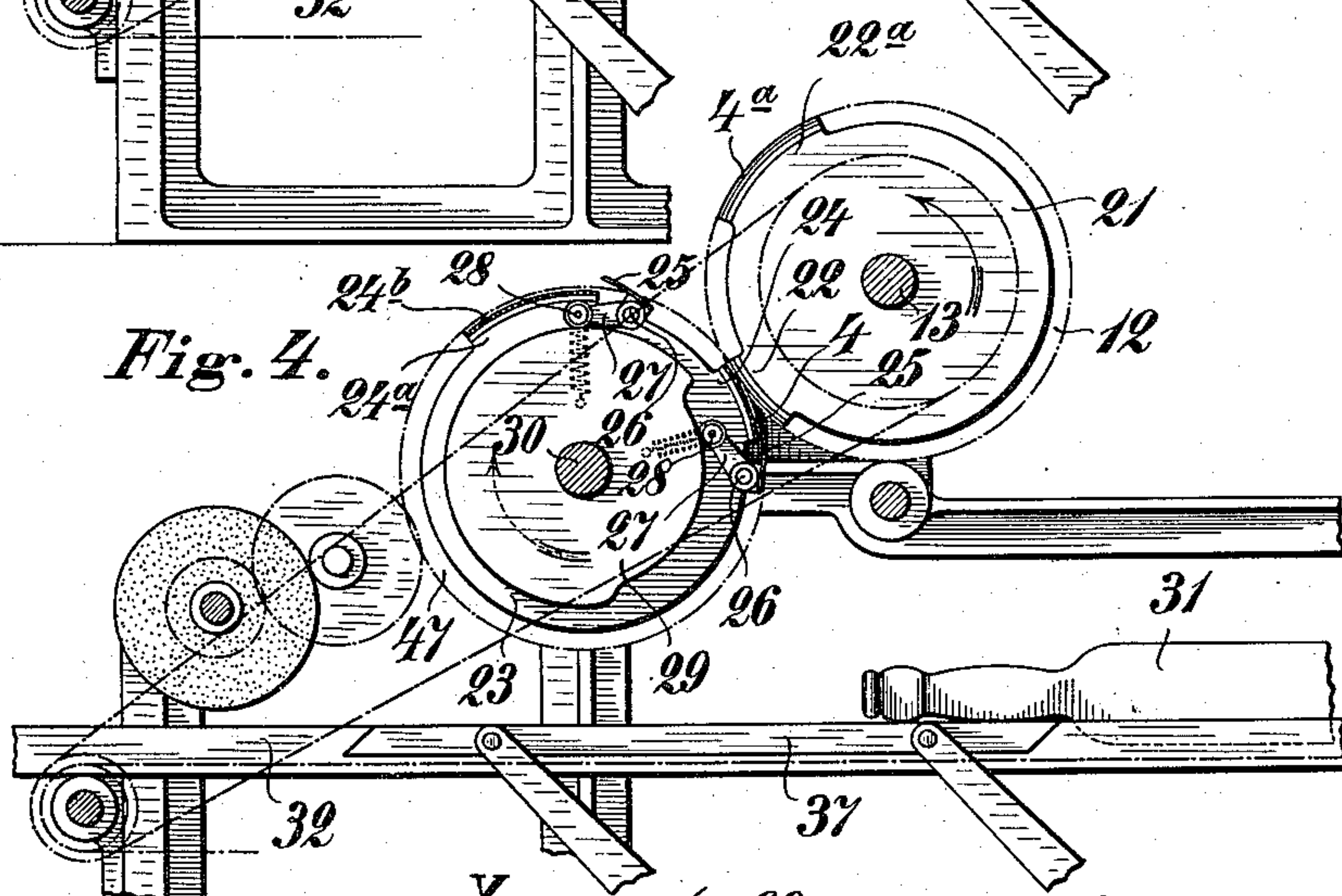
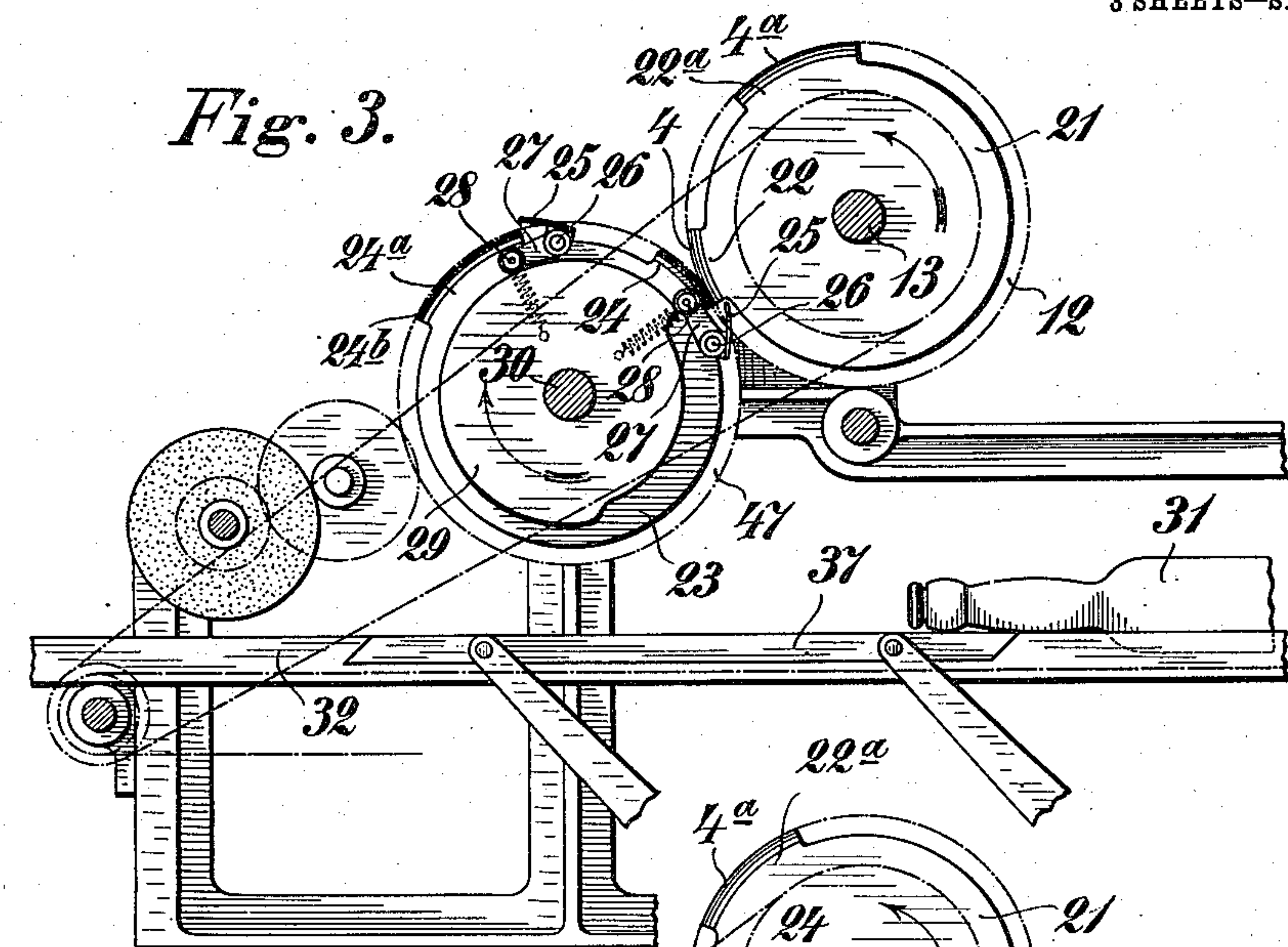
Fig. 2.

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LABELING MACHINE.
APPLICATION FILED DEC. 8, 1906.

3 SHEETS—SHEET 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

KARL OTTING, OF LUDWIGSBURG, GERMANY, ASSIGNOR TO THE FIRM OF FERD. EMIL JAGENBERG, OF DÜSSELDORF, GERMANY.

LABELING-MACHINE.

No. 860,148.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed December 6, 1906. Serial No. 346,536.

To all whom it may concern:

Be it known that I, KARL OTTING, a subject of the German Emperor, and a resident of Ludwigsburg, Wurtemberg, Germany, have invented new and useful
5 Improvements in Labeling-Machines, of which the following is a specification.

This invention relates to a machine for applying paste to a label, reversing the same, and then affixing the label to a bottle or other article.

10 In the accompanying drawings: Figure 1 is an elevation, partly in section, of my improved labeling machine, with the right end broken away; Fig. 1^a is an elevation of such right end of the machine; Fig. 2 a plan of the machine, with the right end broken away;
15 Fig. 2^a a plan of such right end; Figs. 3 and 4 are details of the pasting and reversing rollers, showing the parts in consecutive positions; Fig. 5 a detail of the reversing roller and brushes, and Fig. 6 a cross section of the pasting roller.

20 The machine-frame 1 is provided with upper rails 2, on which reciprocates a slide 3 carrying a suitable number of label magazines 5 and 5^a. These magazines are open at the bottom, the stacks of labels 4 and 4^a contained therein being supported by catches 48,
25 which permit the lowermost labels to be freely drawn out. The withdrawal of the lowermost labels is effected by a pasting cylinder 21 beneath the path of the slide, which is provided with segmental projections 22, 22^a that correspond in number to that of the
30 magazines. The labels are fed in such a manner that they will register with the segments, and receive the paste from the surface of the latter. The slide 3 is reciprocated by a gear wheel 12 mounted on shaft 13 of cylinder 21, and engaging wheel 11 fast on counter-
35 shaft 10. This shaft carries a pair of chain wheels 7 that drive a pair of parallel endless chains 6, passing also over idlers 7^a. To chains 6 are pivoted, by outwardly extending pins 9, rods 8 which are also connected to slide 3, so that each complete rotation of cylinder 21
40 will cause a complete turn of the chains, and consequently a reciprocating movement of the slide.

To supply the paste to the segments 22, 22^a of cylinder 21, there is provided a paste-box 18, into which dips a roller 19 engaged by a transferring roller 20,
45 which, in turn, engages the segments 22, 22^a of cylinder 21. Roller 20 is driven from wheel 12 by a suitable transmission, (not shown), and in turn rotates roller 19.

By the means described, the labels will, during the operation of the machine, be transferred from the
50 magazines 5, 5^a to the segments 22, 22^a to have their bottoms here covered with paste, the faces of the labels being directed outwards. From cylinder 21 the labels are transferred to a second cylinder 23, upon which they are reversed. Cylinder 23 is mounted on
55 shaft 30 and is rotated at uniform speed with cylinder 21, by wheels 12, 47. Cylinder 23 is provided with

the segmental projections 24, 24^a that receive the labels from the projections 22, 22^a of cylinder 21. The transfer of the labels from cylinder 21 to cylinder 23 is effected by take-off fingers 25 which engage the backs 60 of the labels, and after turning them over and placing them upon projections 24, 24^a, hold them to the latter. Fingers 25 turn on pins 26 of levers 27, which are provided with rollers 28, spring-pressed against the periphery of a stationary cam 29, so that the rotation 65 of cylinder 23 will cause an oscillation of the fingers.

The means for conveying the bottles 31, or other articles to be labeled, to the cylinders, consist of an endless chain 35 which is caused to move at the same speed as segments 24, 24^a of cylinder 23. Chain 35 en- 70 gages chain wheels 33, mounted on shafts 17, one of which may serve for driving the machine. Bottle 31 is placed on rails 32, at one end of the machine, and is thence moved forward by one of a number of abutments 36, so spaced along chain 35, that the bottle is 75 presented to the segments 24, 24^a at the proper part to be labeled. In this way the labels are attached to the bottle, such attachment being facilitated by providing the projections 24, 24^a with a flexible covering 24^b, by means of which the labels are pressed uni- 80 formly against the widest possible surface of a cylindrical or convex article.

In order to permit articles of different size to be labeled, rails 32 are, beneath cylinder 23, provided with movable members 37. These members may be moved 85 upward by levers 38 fast on shafts 39 and influenced by springs 40. By the means described, members 37, with the bottle 31 supported thereon, are, while the bottle is continuously moved forward, pressed towards the labels attached to cylinder 23. 90

In order to effect the raising and lowering of the bottles at the right moment, angle levers 41 are provided, such levers turning on pins 43 and engaging cams 42. To angle levers 41 are pivoted arms 44, the lower forked ends of which straddle pins 45 on levers 95 49 fast on one of the shafts 39. These arms normally press the rail-members 37 into engagement with rails 32. Cams 42 are fast on the continuously rotating shaft 13 of paste-cylinder 21, and are so shaped that the angle levers will rise and permit the rail-members 100 37 to be raised by springs 40, at the proper moment. In this way, bottles of different diameters may be labeled at one or more places, while being continuously fed forward by abutments 36.

Back of cylinder 23, there are mounted a pair of 105 brush-rollers 46 rotated by wheels 47 47^a, and serving to vigorously press the labels against the bottles, so that a firm union along the entire surface is effected.

Having fully described my invention, what I claim and desire to secure by Letters Patent is:— 110

1. A labeling machine provided with a slide, a label magazine carried thereby and having an open bottom, a

pasting cylinder beneath the path of the slide, and a reversing cylinder in proximity to the pasting cylinder, substantially as specified.

2. A labeling machine provided with a slide, a label
5 magazine carried thereby and having an open bottom, a
pasting cylinder beneath the path of the slide, a reversing
cylinder in proximity to the pasting cylinder, a conveyer
having movable members, and means for raising said mem-
bers towards the reversing cylinder, substantially as
10 specified.

3. A labeling machine provided with a slide, a label
magazine carried thereby and having an open bottom, a
pasting cylinder beneath the path of the slide, a reversing
cylinder in proximity to the pasting cylinder, and rota-
15 table brushes back of the reversing cylinder, substantially
as specified.

4. A labeling machine provided with a slide, a pair of
label magazines carried thereby, a pasting cylinder having
a series of segmental projections, a reversing cylinder in
20 proximity to the pasting cylinder, a conveyer having mov-
able members, and means for raising said members towards
the reversing cylinder, substantially as specified.

5. A labeling machine provided with a pair of endless

parallel feed chains, a slide operatively connected thereto,
a label magazine carried by the slide, a pasting cylinder, 25
a reversing cylinder in proximity to the pasting cylinder,
and a conveyer, substantially as specified.

6. A labeling machine provided with a conveyer having
vertically movable members, spring-influenced levers en-
gaged thereby, arms operatively connected to the levers, 30
angle levers pivoted to the arms, and cams engaged by the
angle levers, substantially as specified.

7. A labeling machine provided with a pasting cylinder
having segmental projections, a reversing cylinder having
segmental projections and arranged in proximity to the 35
pasting cylinder, means for stripping the labels from the
pasting cylinder and holding them to the reversing cylin-
der and flexible coverings on the projections of the re-
versing cylinder, substantially as specified.

In testimony whereof I have hereunto set my hand in 40
the presence of two subscribing witnesses.

KARL OTTING.

Witnesses:

HERMANN HOPPE,
WM. HAHN.