

No. 619,318.

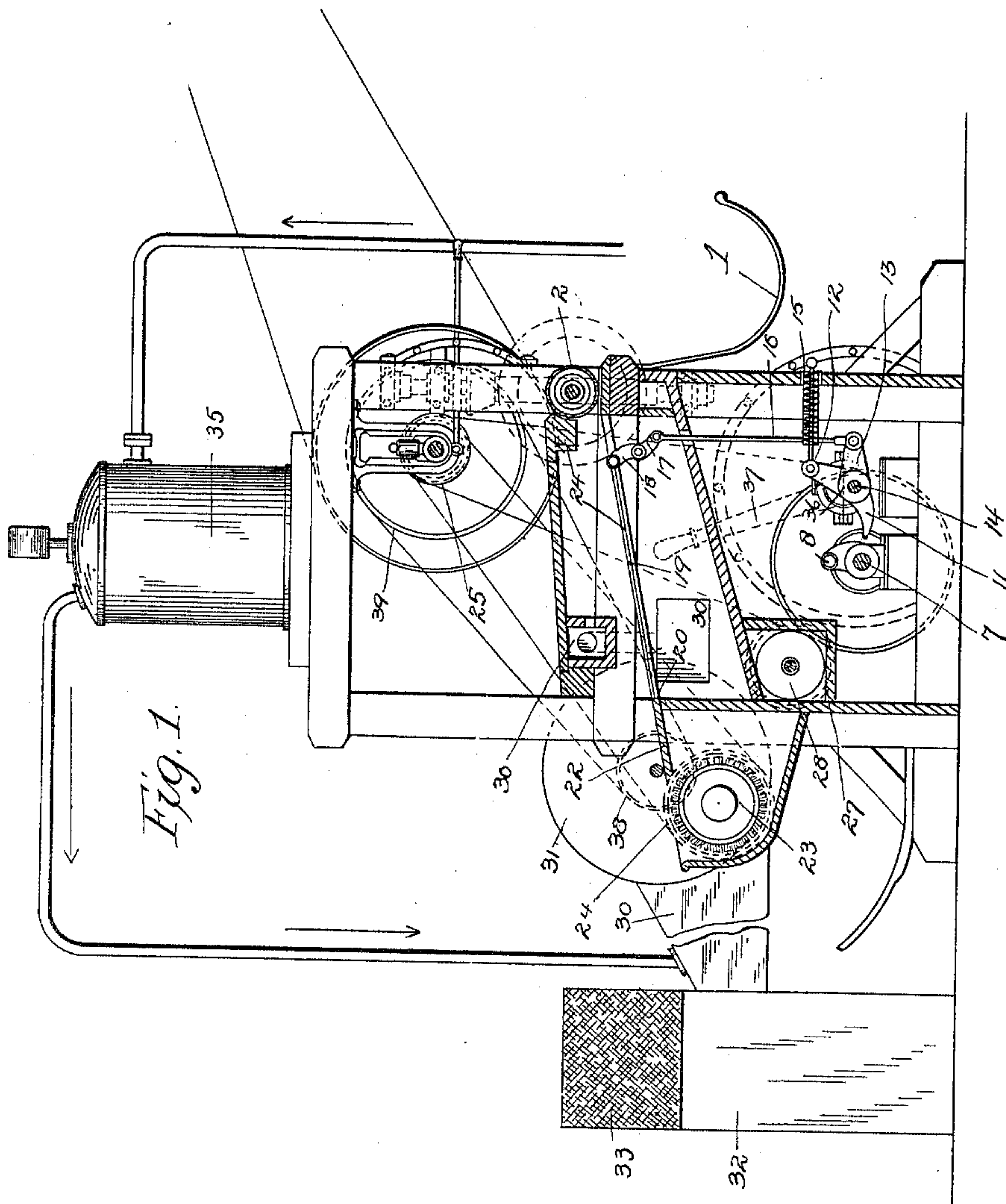
Patented Feb. 14, 1899.

P. KUBICA.
BATTING MACHINE.

(Application filed Mar. 30, 1897.)

(No Model.)

4 Sheets—Sheet 1.



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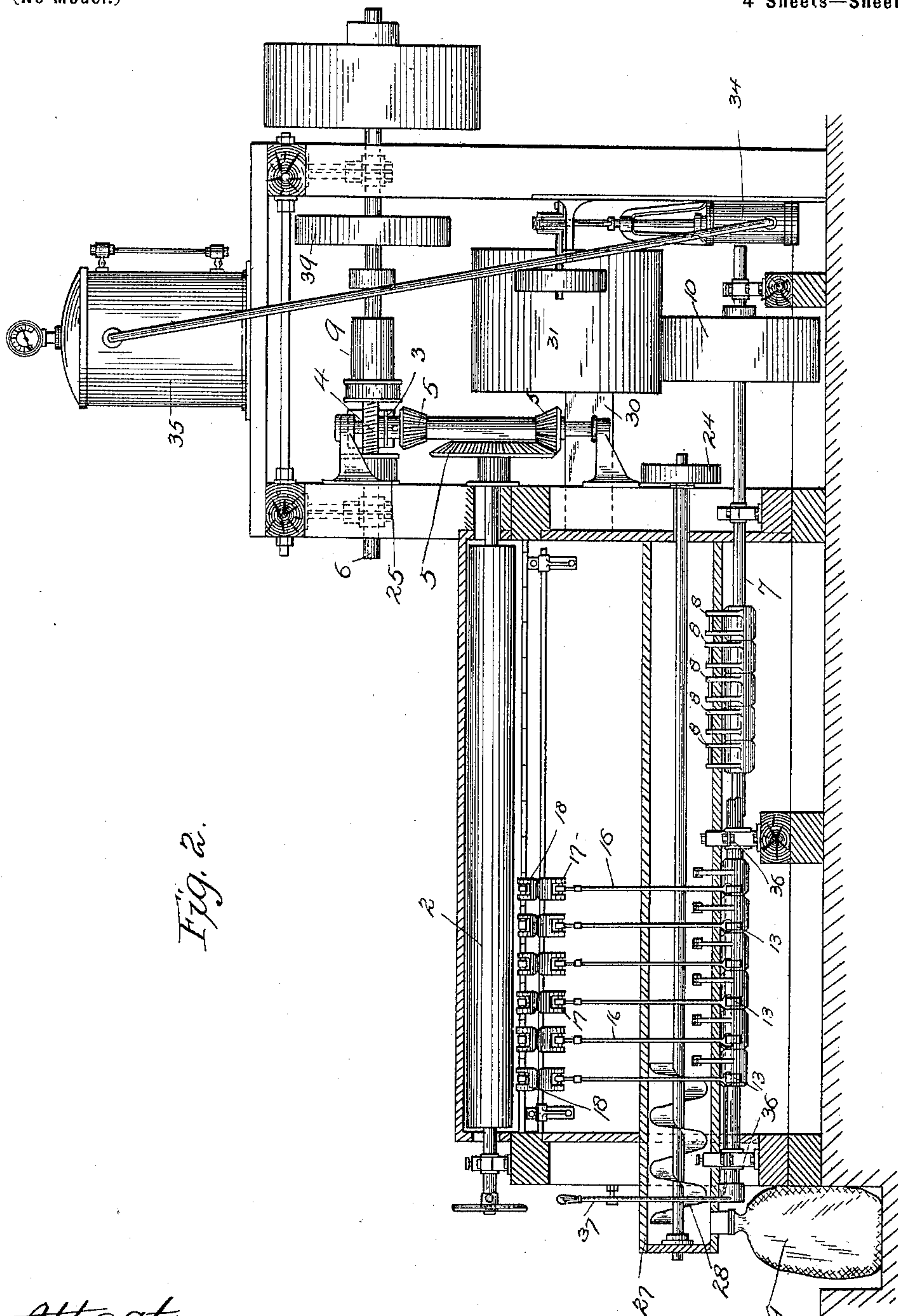


Fig. 2.

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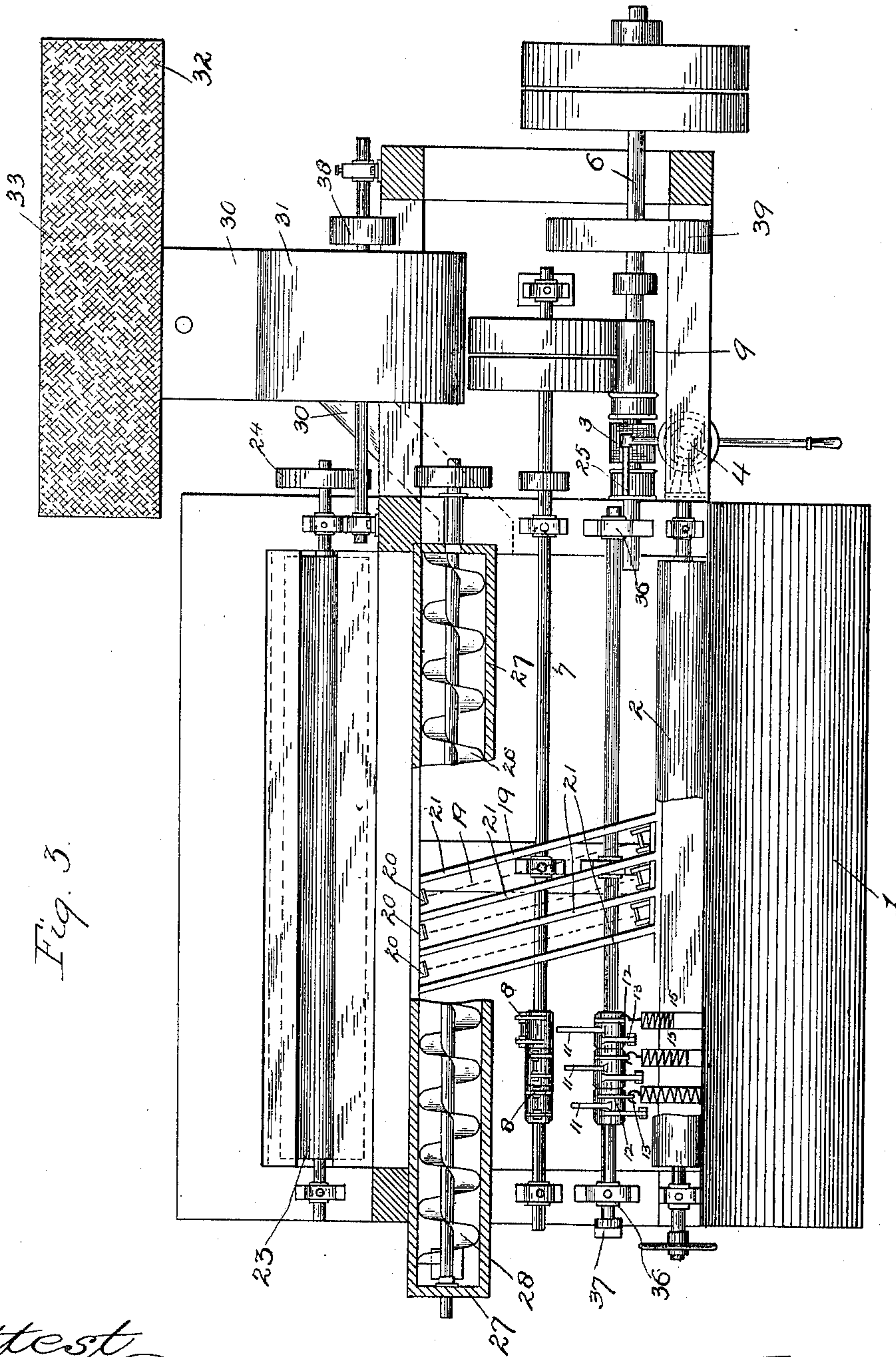
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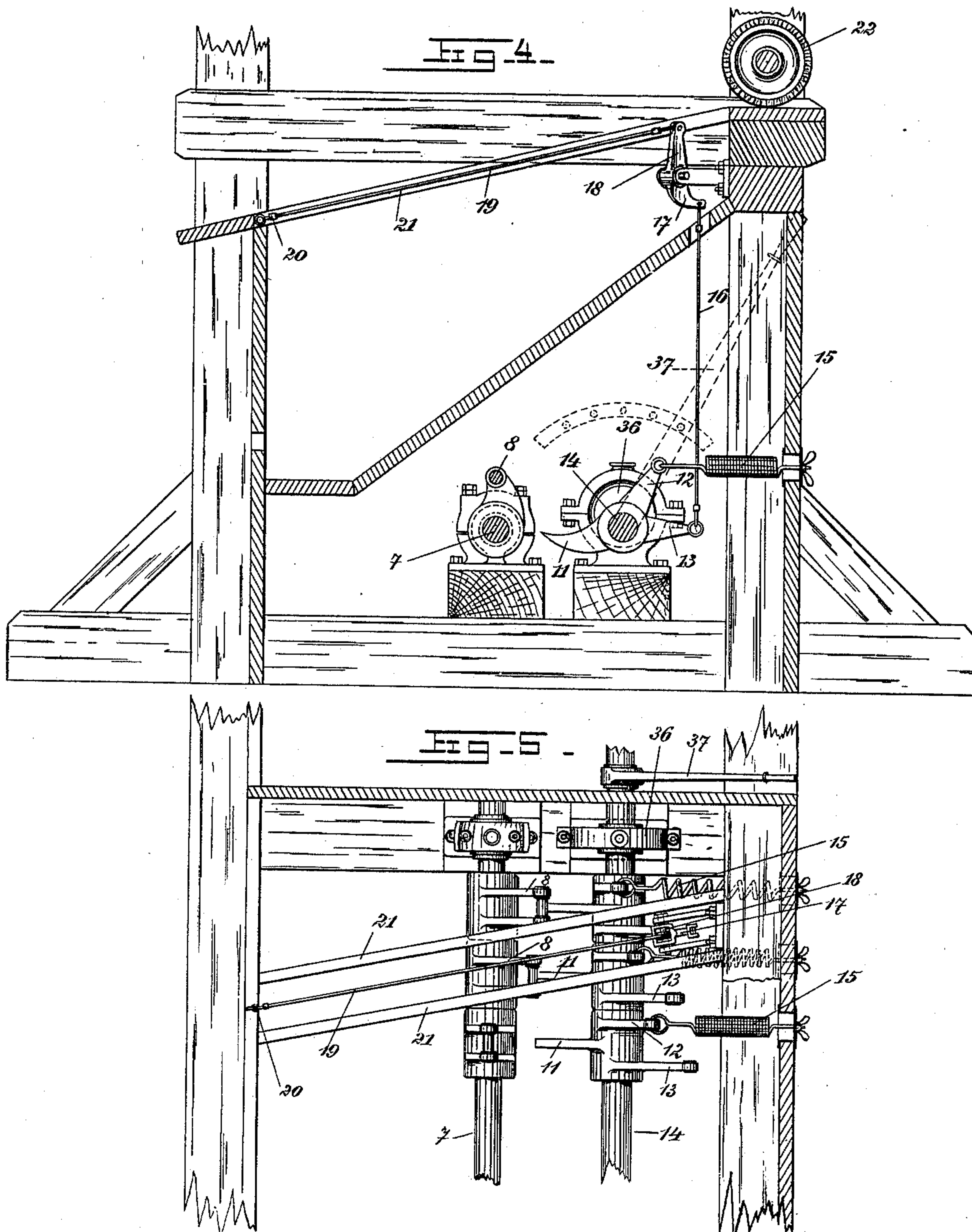
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4 Sheets—Sheet 4.



Witnesses:
E. B. Rolton
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Inventor:
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By *Richard R.*
his Attorneys.

UNITED STATES PATENT OFFICE.

PAUL KUBICA, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR OF TWO-THIRDS
TO LEOPOLD SWATOSCH AND CARL WALDMANN, OF SAME PLACE.

BATTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 619,318, dated February 14, 1899.

Application filed March 30, 1897. Serial No. 629,997. (No model.)

To all whom it may concern:

Be it known that I, PAUL KUBICA, a subject of the Emperor of Austria-Hungary, and a resident of Vienna, in the Empire of Austria-Hungary, have invented a new and useful Batting-Machine, of which the following is a full, clear, and exact description.

This invention relates to a batting-machine which is illustrated in the annexed drawings, of which—

Figure 1 is a cross-section; Fig. 2, a sectional front elevation; Fig. 3, a plan view, part of which is also shown in section. Fig. 4 shows in side elevation the cams and cooperating parts for operating the beaters, parts of the figure being shown in section. Fig. 5 shows a plan view of parts in Fig. 4, with the framework in section.

The machine is suitable for all kinds of textiles, either for the purpose of cleaning or finishing same. For simplifying the specification only carpets shall be referred to in the following description as the work to be treated in the batting-machine.

The carpet to be cleaned is put in the trough or casing 1, and its edge is passed under the feeding-roller 2, which is driven by the main driving-shaft 6 by means of a worm 3, a worm-wheel 4, and gearing 5.

The proper batting apparatus consists of a counter-shaft 7, provided with cams 8, which are arranged along the shaft in a helical line. The shaft 7 is driven from the driving-shaft 6 by means of pulleys 9 and 10, and the cams 8 act upon the arms 11 of three-armed bell-crank levers 11 12 13, which are movably arranged on a shaft 14. Adjustable springs 15, attached to the arm 12, return the bell-crank levers 11 12 13 into their normal position, whereas the arms 13 are pivotally connected with rods or straps 16, operating double-armed rotatable bell-crank levers 17 18. The upper arms 18 of these bell-crank levers serve for attaching the straps 19, batting against the work to be treated, the other ends of these straps 19 being fixed at 20. When the lever 11 is engaged by the rotating cam 8 and thus moved, the tension of the spring 15 is increased by means of the lever 12, attached to such spring, and at the same time the previously straightened or stretched strap 19 is slackened

by means of the lever 13 to take the position as indicated in Fig. 1 by the dotted line. As soon the cam 8 releases the lever to be operated by the spring 15 the strap 19, being thus suddenly stretched or straightened, is thrown upward and beats against the carpet sliding downward along a grate 21 or other suitable support. The straps 19, as clearly shown in Fig. 3, are arranged between the grate-bars 21, and like these obliquely situated against the direction of the movement of the carpet, so that the straps beat diagonally and every part of the carpet is acted upon.

The carpet slides along the inclined plane 22 to the brush-roller 23, which cleans the under side of the carpet. This brush-roller 23 is actuated by means of the pulleys 24 25 and the shaft 6. If the carpet is to be repeatedly beaten, the gearing 5, as soon as the end of the carpet has reached the feeding-roller 2, is reversed, so as to cause the reverse movement of the carpet, the brushing and batting being continued. The coarse dust being set free by the batting operation moves downward along the inclined floor 26, falls into a channel 27, and is conveyed into a collecting-bag 29 by means of a worm 28, arranged in the channel 27.

The spaces above and below the grate 21 communicate with one another by means of a passage 30, extending to an exhauster or fan 31, driven by the pulleys 38 39, for the purpose of sucking or passing off the dust flying about in both spaces and conducting same to a chamber 32.

The upper part 33 of the dust-chamber 32 is preferably coated with cloth, so as to allow the air exhausted by the fan to pass out.

The machine is provided with an air-compressor 34 for atomizing the water contained in a receptacle 35. In order to adjust or regulate the batting action of the straps according to the thickness of the work to be treated, the shaft 14 is mounted in eccentrics 36 and is provided with a hand-lever 37, which may be adjusted over a curved index-plate and so that without stopping the machine the shaft 14 can thus be placed at a less or greater distance from the shaft 7 or its cams 8. Moreover, the springs are individually adjustable for different tension, and, further—

more, the batting-straps 19 may be provided with weights for varying or modifying their operation.

5 Having now particularly described and ascertained the nature of this invention, I declare that what I claim, and wish to secure by Letters Patent, is—

1. In a batting-machine the combination
10 of a grate, having diagonally-disposed bars, of straps situated between such bars, such straps being preferably fixed at one end and secured at the other end to one set of arms of three-armed bell-crank levers, another set of arms of such levers being operated upon
15 by the cams of a shaft, thus alternately causing, with the aid of a spring, attached to the third set of arms, a slackening and a sudden

stretching or straightening of the straps, substantially as described and shown.

2. In a batting-machine, the combination 20 with the straps, of the shaft, the eccentrics for adjustably supporting said shaft, the spring-pressed bell-crank levers carried by said shaft and operatively connected with the straps, and means for operating said bell- 25 crank levers, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

PAUL KUBICA.

Witnesses:

HARRY BELMONT,
KARL HÜTTER.