

No. 614,811.

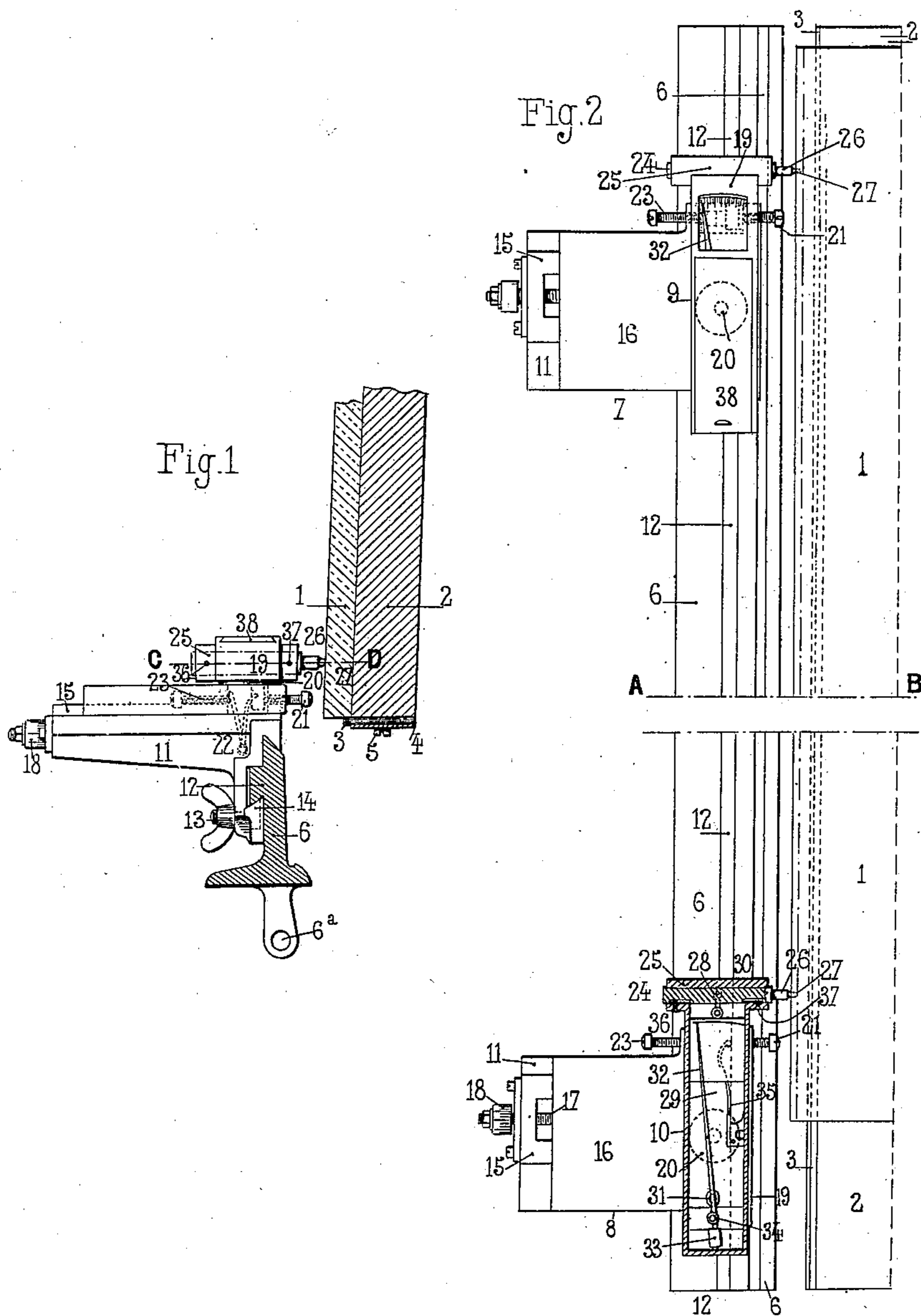
Patented Nov. 22, 1898.

M. JOHANNET.
GLASS BEVELING MACHINE.

(Application filed Dec. 31, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

W. B. Keefe
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By James L. Norris
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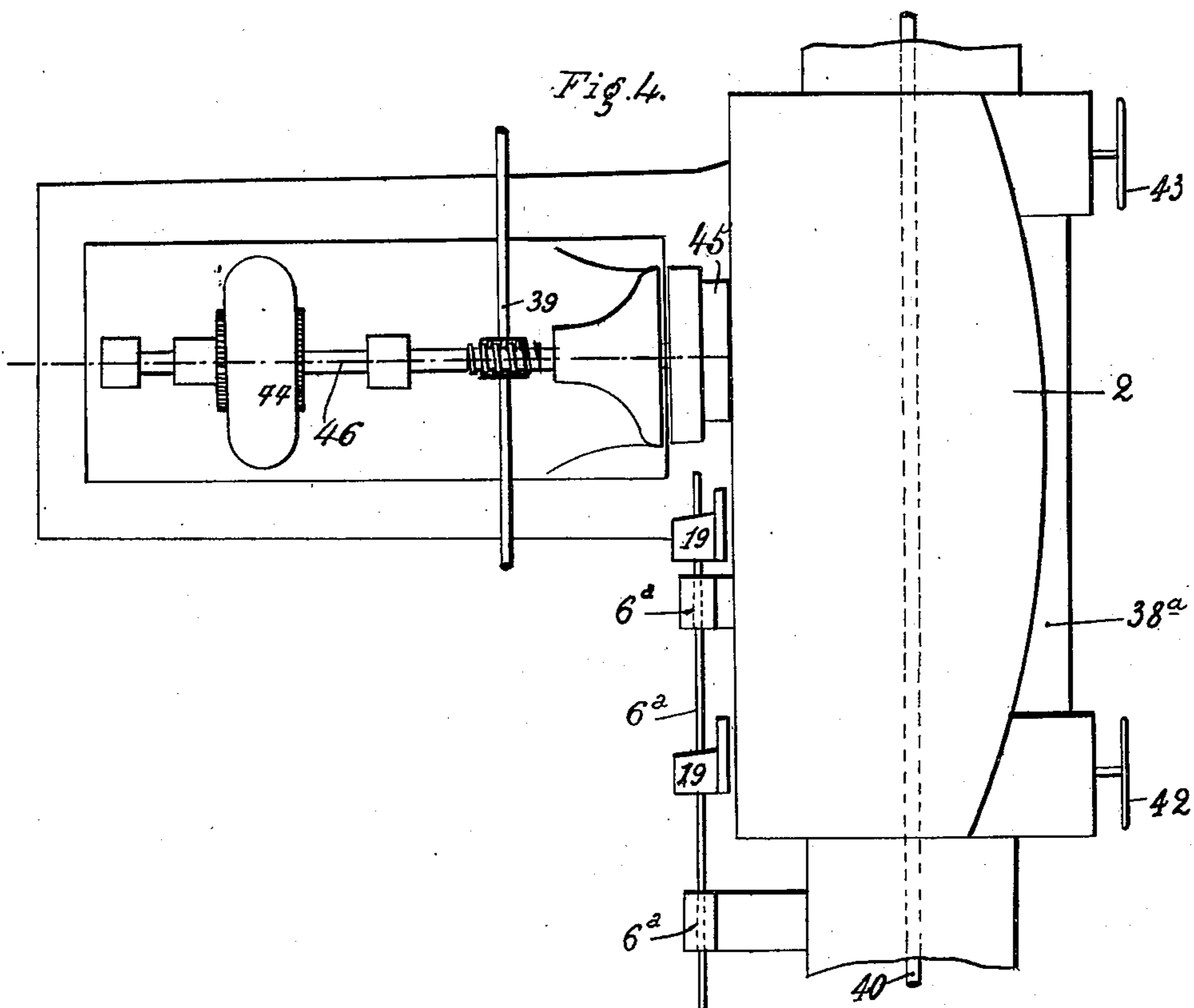
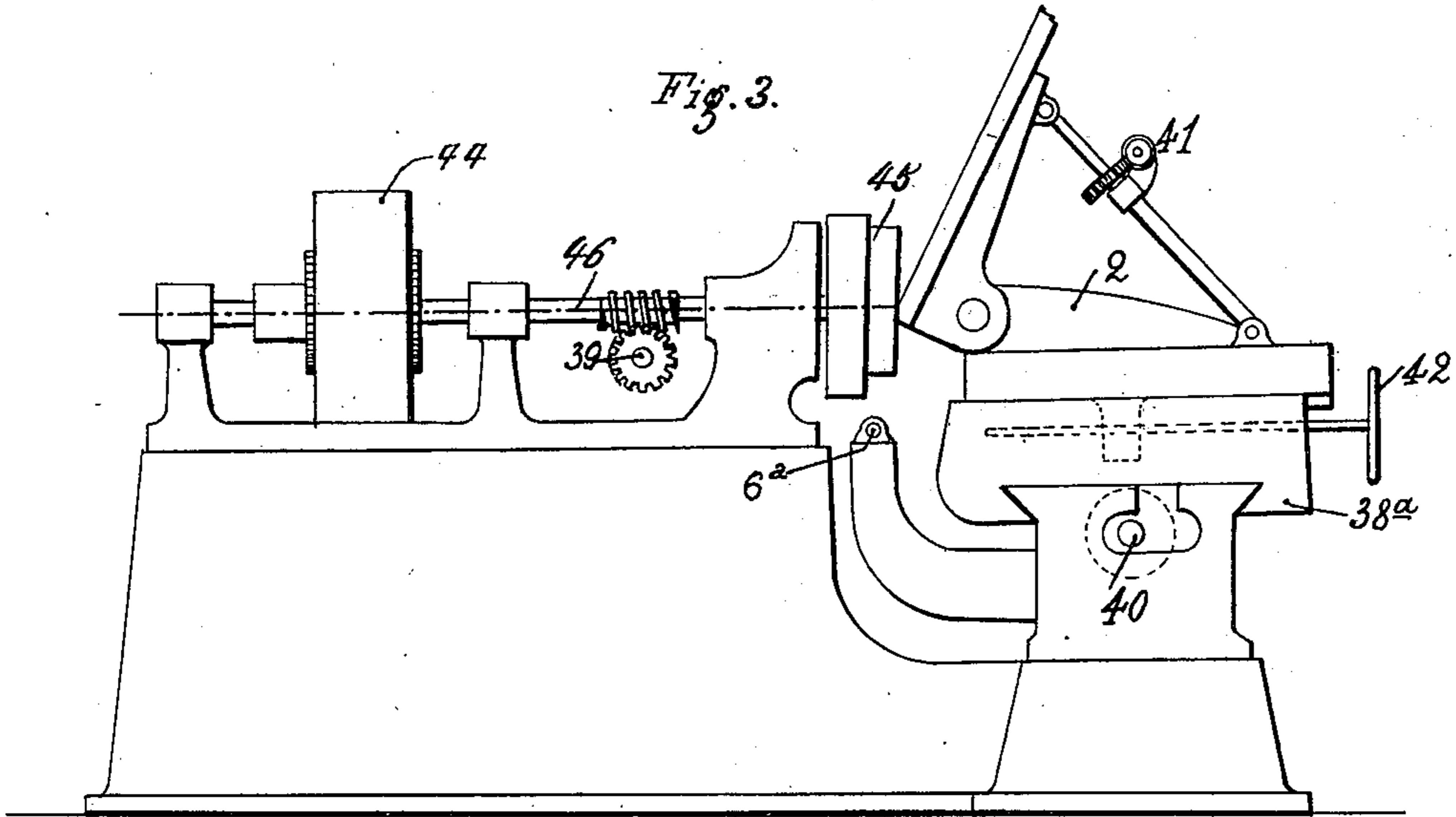
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UNITED STATES PATENT OFFICE.

MAXIME JOHANNET, OF PARIS, FRANCE.

GLASS-BEVELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 614,811, dated November 22, 1898.

Application filed December 31, 1897. Serial No. 664,923. (No model.)

To all whom it may concern:

Be it known that I, MAXIME JOHANNET, a citizen of France, residing at Paris, in the department of the Seine, France, have invented certain new and useful Improvements in Glass-Beveling Machines, (for which I have obtained Letters Patent in France, No. 239,308, dated June 14, 1894, and in Germany, No. 90,600, dated April 1, 1896,) of which the following is a specification.

This invention has for its object a glass-beveling machine, by which a bevel of a glass is ground in a sole working-passage and which allows of the glass to be set in such a manner that its edge to be beveled lies in a vertical plane parallel to the grinding-wheel.

My invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section at line A B, Fig. 2. Fig. 2 is a top view. Fig. 3 is an elevation of my apparatus. Fig. 4 is a top view of the same.

The glass 1 to be beveled has its lower end held by a leather band 3, pressed between the frame 2 and an iron band 4 by means of screws 5. The upper end of the glass is held to the frame 2 by any suitable or preferred means. In this manner the glass 1 is prevented from sliding laterally under the action of the grinding-wheel. This device decreases the risks of a rupture of the glass.

To set the glass conveniently on the frame 2 before the operation, I provide the following devices, which allows of the glass to be set at a hundredth of a millimeter. These devices consists of two hinged rules 6. The hinge 6^a of these rules are exactly parallel to the grinding-wheel. On these rules 6 are arranged two carriages 7 and 8, which carry, respectively, the instruments 9 and 10, which I will call "comparators." Both carriages and comparators are of the same construction, which is as follows:

Each carriage 7 or 8 consists of a bracket 11, which may be moved by hand along the rule 6. This bracket is mounted on this rule by means of a dovetail 12 14 with a thumb-screw 13. On this carriage is provided a dovetailed slide 15, along which slides a plate 16. This plate is moved by a micrometric screw 17, which is operated by a graduated head 18, turning in face of a fixed switch.

On this plate 16 is arranged one of the comparators 9 or 10. This instrument is inclosed in a rectangular metallic box 19, pivoted on a vertical spindle located at the centrum of the disk 20, which is attached to the plate 16. By means of the screw 21 the box 19 can be slightly turned to set its edge parallel to that of the plate 16. A V-shaped spring 22 presses the box 19 against the screw 21. The power of this spring is regulated by the screw 23.

The comparator consists in a slide 24, adjusted in a socket 25, forming part of the box 19. This slide is provided with a steel bar 26, which terminates in a point 27. Said slide 24 is pivotally connected at 28 with the smaller arm of the lever 29, which is pivoted on the vertical pin 30. The other end of this lever 29 is connected by a pin 31 with an index 32, pivotally arranged on a vertical axis 34. A counterweight 33 is provided to maintain this index in equilibrium. The different lengths of the aforesaid levers and index are so calculated that any movement of the point 27 corresponds to a circumferential movement of the index 32, which is a hundred times greater. In this manner a movement of a hundredth of a millimeter of the point 27 corresponds to one millimeter on the dial 32. A spring 35 presses over on the lever 29, which device has for its object to pull the point 27 toward the right. Two little buffer-screws 36 and 37 limit the movement of the slide 24. Box 19 is provided at its top with a glass to permit the reading on the dial 32.

To use my apparatus, I begin by regulating once for all the positions of both comparators, so that the line passing at the points 27 may be exactly parallel to the rule 6. To do so I use an exactly-ground mirror placed on the frame 2. After this if the glass 1 should be regulated it is sufficient to move the two screws 42 and 43 at each end of the frame 2, so that the glass 1 in bearing upon the point 27 locates each index 32 on the same graduation of its dial-plate. In this case the edge of the glass to be beveled is parallel to the plane of the grinding-wheel. After this regulation the rule 6 is moved on the spindle 6^a, so as to let free the space for the grinding-wheel. Then the grinding apparatus is operated in the usual manner.

The springs 22 are provided to avoid the

breakage of the comparators in case the frame 2 is pulled too hard against the points 27. In this case, indeed, the boxes 19 pivot merely on their vertical axis without any deterioration.

Fig. 3 shows a lateral diagrammatic elevation of my improved glass-beveling machine. 44 is an electric motor. The grinding-wheel 45 is directly mounted on its main shaft, (reference-numeral 46.) This device suppresses the breakages of the glass caused by the belt-couplings. The motion of the main carriage 38^a, which carries the glass-holding frame 2, is provided by means of two shafts 39 and 40. The former derives its motion from a worm device on the main shaft 46. It is connected to the shaft 40 by any suitable and well-known arrangement of gearing and belts.

The glass-holding frame 2 may be more or less inclined by the screw 41.

What I claim is—

1. In a glass-beveling machine, the combination with a frame pivotally mounted at one end upon a suitable base and means for va-

rying the inclination of said frame, of adjustable devices for setting the glass to said frame consisting of two hinged rules parallel to the grinding-wheel, carriages movable along said rules, and comparators pivotally mounted on said carriages and adapted to yield under excessive pressure of the plate carried by the pivoted frame, substantially as described.

2. In a glass-beveling machine the combination with a frame pivotally mounted at one end on a suitable base, of adjustable devices for securing the glass to said frame consisting of two hinged rules parallel to the grinding-wheel and having carriages carrying comparators and capable of movement along said rules, substantially as described.

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

MAXIME JOHANNET.

Witnesses:

H. JOSSER,
ALFRED FREU.