

No. 627,288.

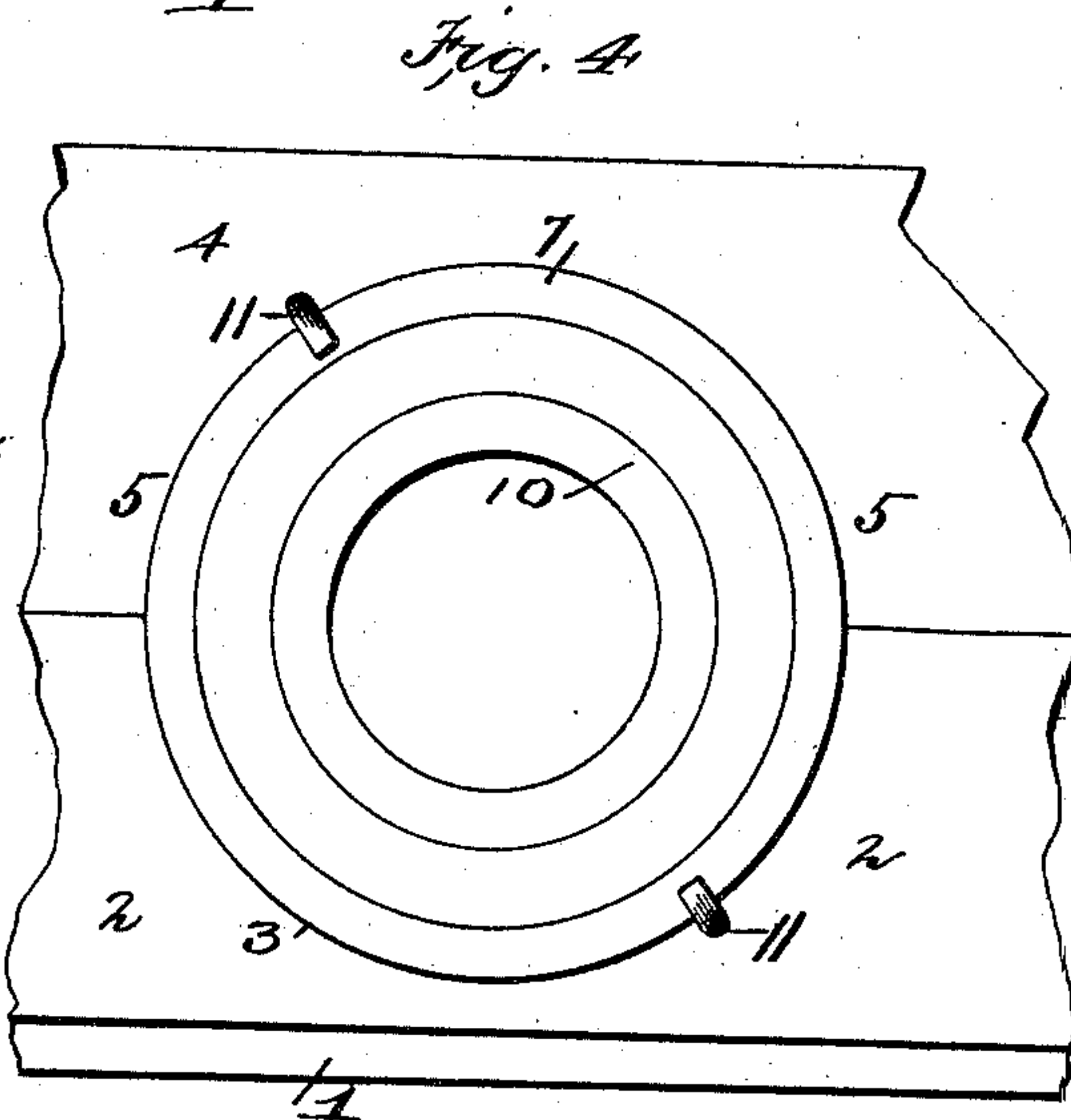
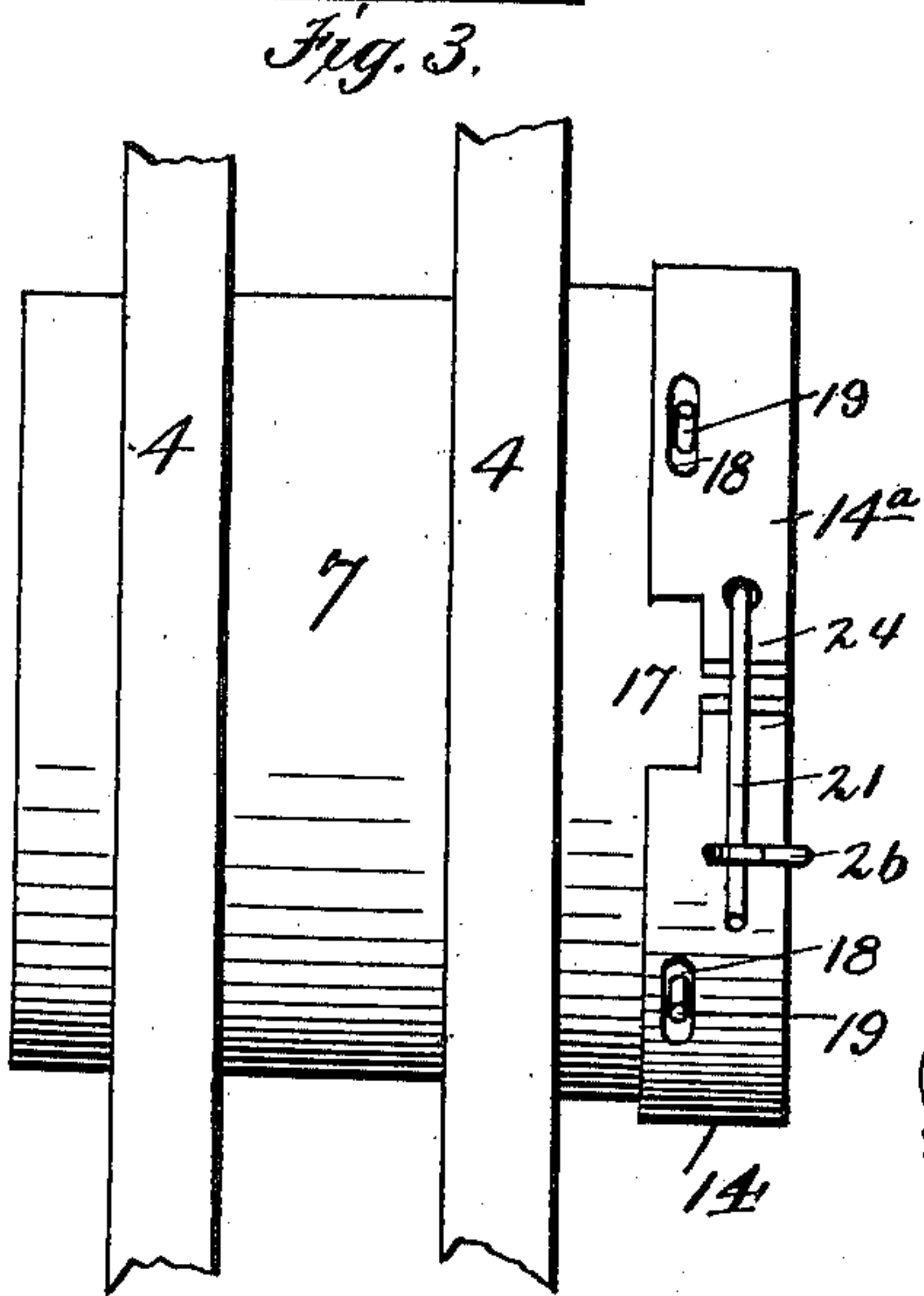
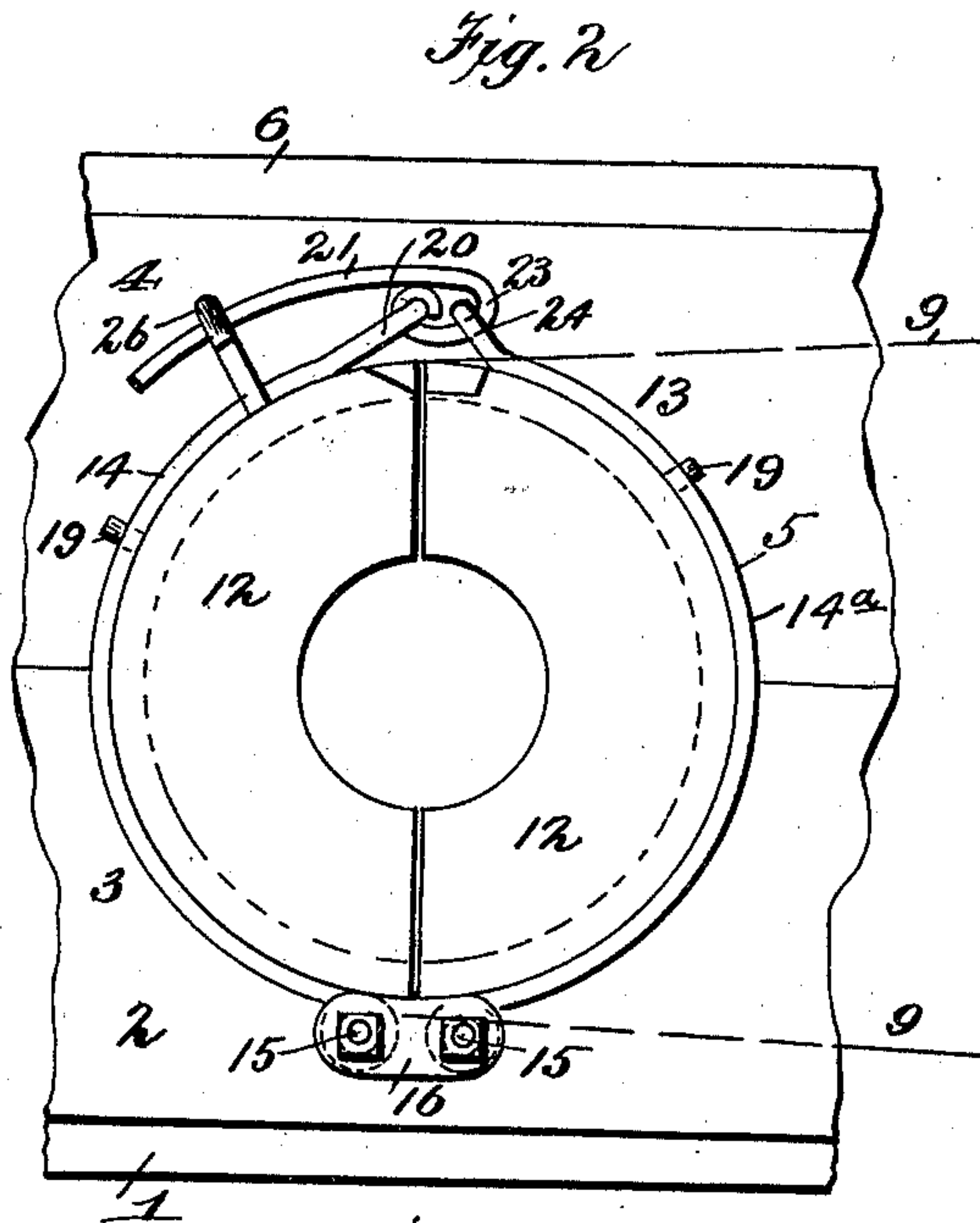
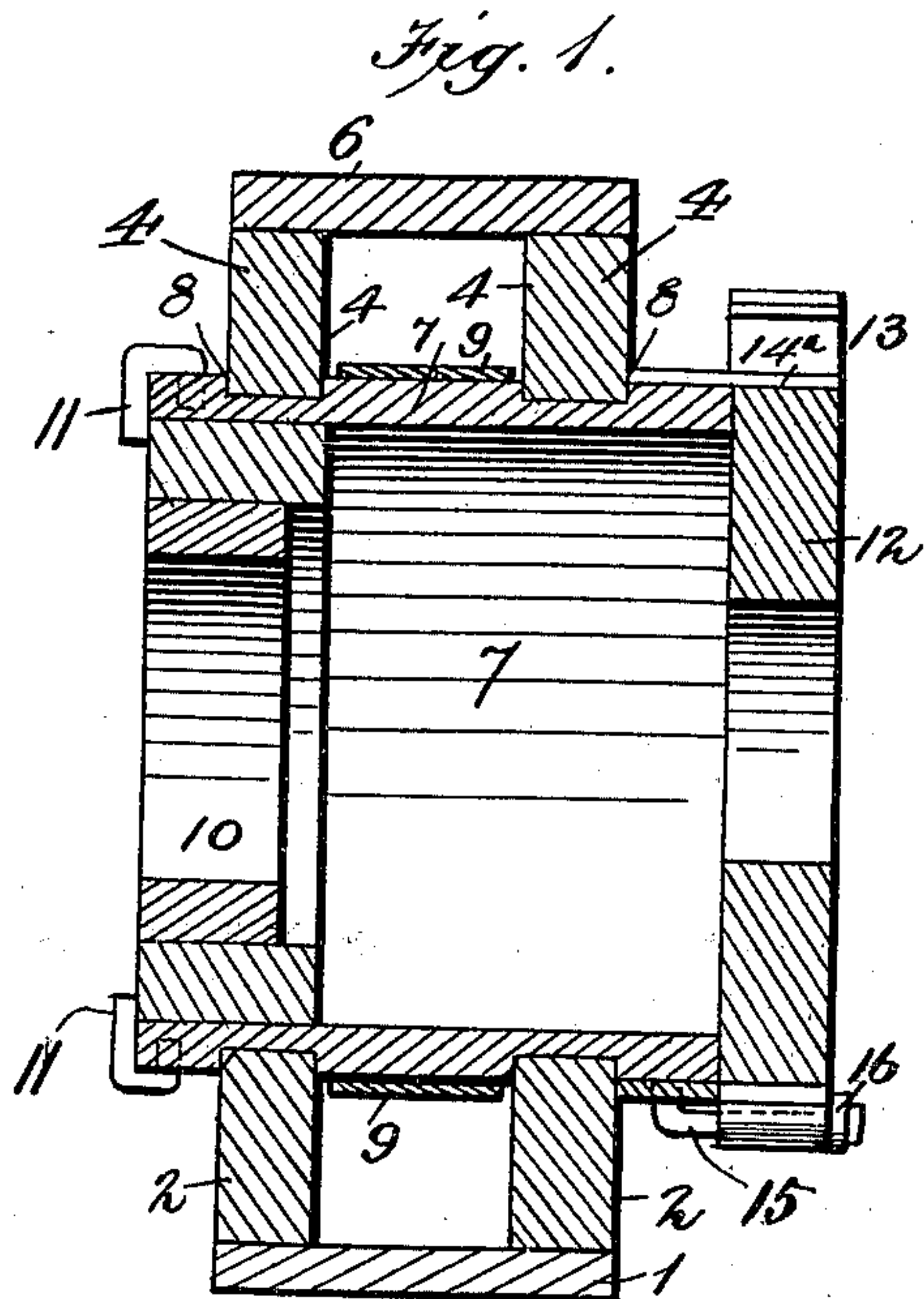
Patented June 20, 1899.

C. E. BALL.

MACHINE FOR HOLDING GLASS CYLINDERS WHILE BEING CUT.

(Application filed Mar. 1, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. BALL, OF ALEXANDRIA, INDIANA, ASSIGNOR OF ONE-HALF TO
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MACHINE FOR HOLDING GLASS CYLINDERS WHILE BEING CUT.

SPECIFICATION forming part of Letters Patent No. 627,288, dated June 20, 1899.

Application filed March 1, 1899. Serial No. 707,349. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. BALL, a citizen of the United States, residing at Alexandria, in the county of Madison and State of Indiana, have invented new and useful Improvements in Machines for Holding Glass Cylinders while being Cut, of which the following is a specification.

My invention relates to machines for holding and rotating glass cylinders while being cut to remove the jagged or roughened ends; and its object is to provide an improved construction of the same for securely holding a glass cylinder—such, for instance, as a lamp-chimney—without liability of breaking the same.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a machine constructed according to my invention for holding and rotating a glass cylinder. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view. Fig. 4 is an end elevation.

In the said drawings the reference-numeral 1 designates the base of the machine, upon which are mounted two parallel standards 2, formed in their upper edges with semicircular recesses 3, and seated upon these standards are corresponding standards 4, having semicircular recesses 5 in their lower edges. The standards 4 are connected together at their upper ends by a plate 6, and when placed on the standards 2 there are two opposite circular holes formed by the said recesses in the edges, which serve as bearings for a rotatable cylinder 7. This cylinder, which is of metal, wood, or other suitable material, is formed with peripheral grooves 8, which engage with the edges of said holes. A driving-belt 9 passes around the cylinder between the grooves for rotating it. Inserted in one end of said cylinder is one or more removable rings 10, of cork or other suitable yielding or elastic material, for receiving the base or lower end of a lamp-chimney or other object and are made removable and of different sizes, so as to accommodate them to chimneys of varying diameters. Hooks 11 are connected with the cylinders 7 for holding said rings in place.

At the opposite end of said cylinder are two semicircular segments 12, also of cork or other elastic material. These segments do not fit in said cylinder like the rings 10, but abut against the same and are held in place by a hinged gate 13, consisting of two semicircular metallic straps 14 and 14^a, passing around the cylinder and projecting beyond the end of the same. These straps at their lower ends are hinged or pivoted to rods 15, secured to the cylinder, and pass up around the segments. Said rods are connected together by plates 16. At the upper ends said straps are cut away at 17 and are formed with slots 18, through which project pins 19, secured to the cylinder, which assist in holding the straps on the cylinder. Secured to one of said straps near the upper end is a lug 20, to which is pivoted a lever 21, one end of which is curved inwardly, forming a cam 23, and the extremity bent into a hook 24. Engaging with this hook is an arm 23, secured to the other strap 14^a. The numeral 26 designates a catch secured to said cylinder, having its free end bent downwardly, forming a hook with which said lever engages when the straps are closed to lock the same.

The operation is as follows: The straps are opened by disengaging the lever from its catch, allowing the segments to spread apart slightly. A lamp-chimney is now inserted in the cylinder by passing the upper end thereof through the ring 10 and out between the segments. Both ends of the chimney will now project a short distance beyond the ring and segments. The straps are now closed by means of the lever 21 clamping the upper end of the chimney firmly between the segments and the cylinder rigidly rotated by the driving-belt. The chimney will be correspondingly rotated, and wires are then pressed against the same at the points desired to be cut, which by their frictional contact will heat the glass very hot at such points. If the chimney be now touched by a piece of cold steel or water be dropped thereon at such heated points, the chimney will break thereat, leaving the ends of the latter smooth and sharp. These sharp edges can be subsequently rounded, if desired, in the manner well known to those skilled in the art. The said segments may be of varying

sizes and removable, so as to accommodate lamps of varying diameters, and owing to their yielding or elastic nature they will securely hold the chimney, yet not injure the same.

5 Having thus fully described my invention, what I claim is—

1. In a machine of the character described, the combination with the rotatable cylinder, of the ring of elastic material removably in-
10 serted in one end thereof, the hooks for holding it in place, the elastic segments at the opposite end of and abutting against said cylinder, the hinged semicircular straps surrounding said segments and means for lock-
15 ing the same, substantially as described.

2. In a machine of the character described, the combination with the base, the standards formed with semicircular recesses, the rota-
20 table cylinder formed with peripheral grooves engaging with said standards, the elastic ring removably inserted in one end of said cylinder and the hooks connected with said cylinder for holding said ring in place, of the elas-
25 tic segments abutting against the opposite end of said cylinder, the semicircular straps

surrounding said segments formed with slots, the plate, the pins passing through said slots, the plates to which said straps are hinged and means substantially as described for locking said straps.

3. In a machine of the character described, the combination with the rotatable cylinder, provided with pins near one end and the rods secured to said cylinder, of the semicircular
35 straps pivoted to said rods and formed with slots through which said pins pass, the yielding or elastic segments, the lug on one of said straps, the hooked cam-lever pivoted thereto, the arm secured to the other strap, the catch,
40 the yielding or elastic ring inserted in the opposite end of the cylinder and the hooks for holding it in place, substantially as specified.

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

CHARLES E. BALL.

Witnesses:

HORACE LUKENS,
JOHN P. ARTHUR.