

No. 666,465.

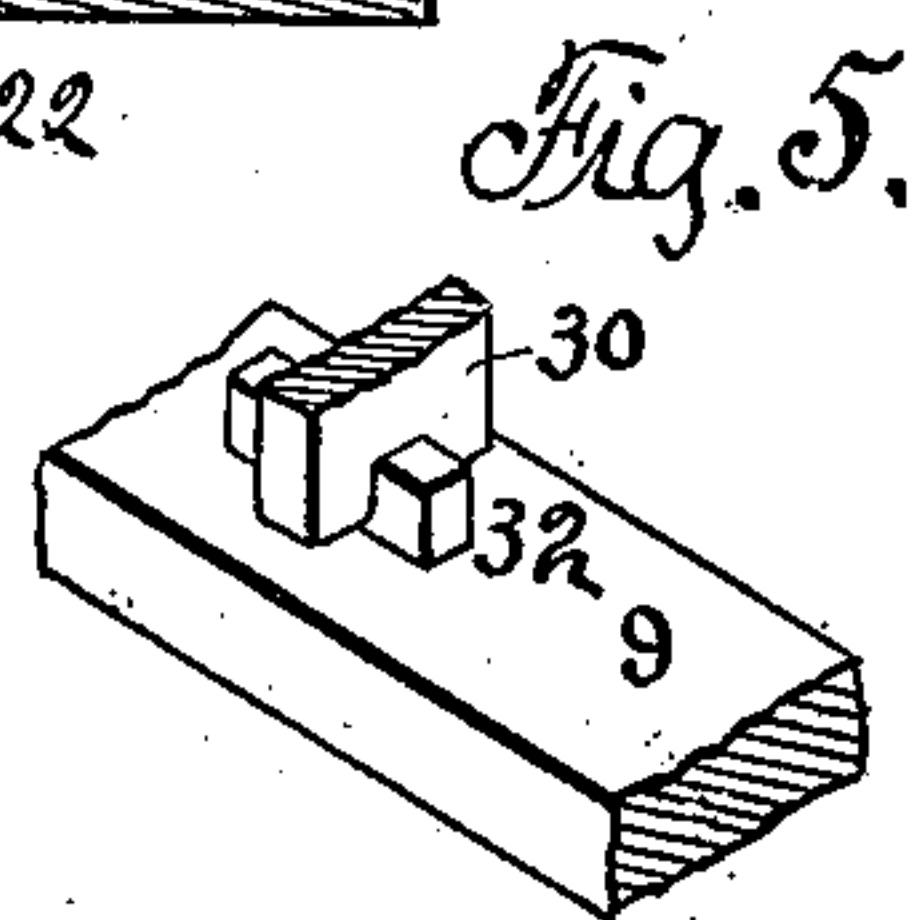
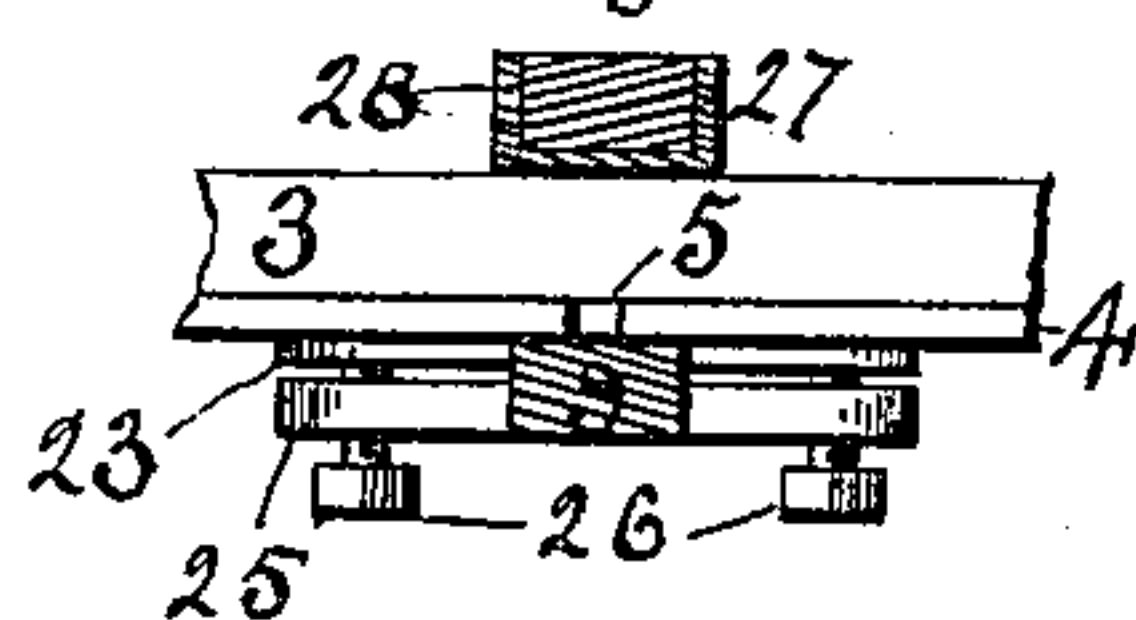
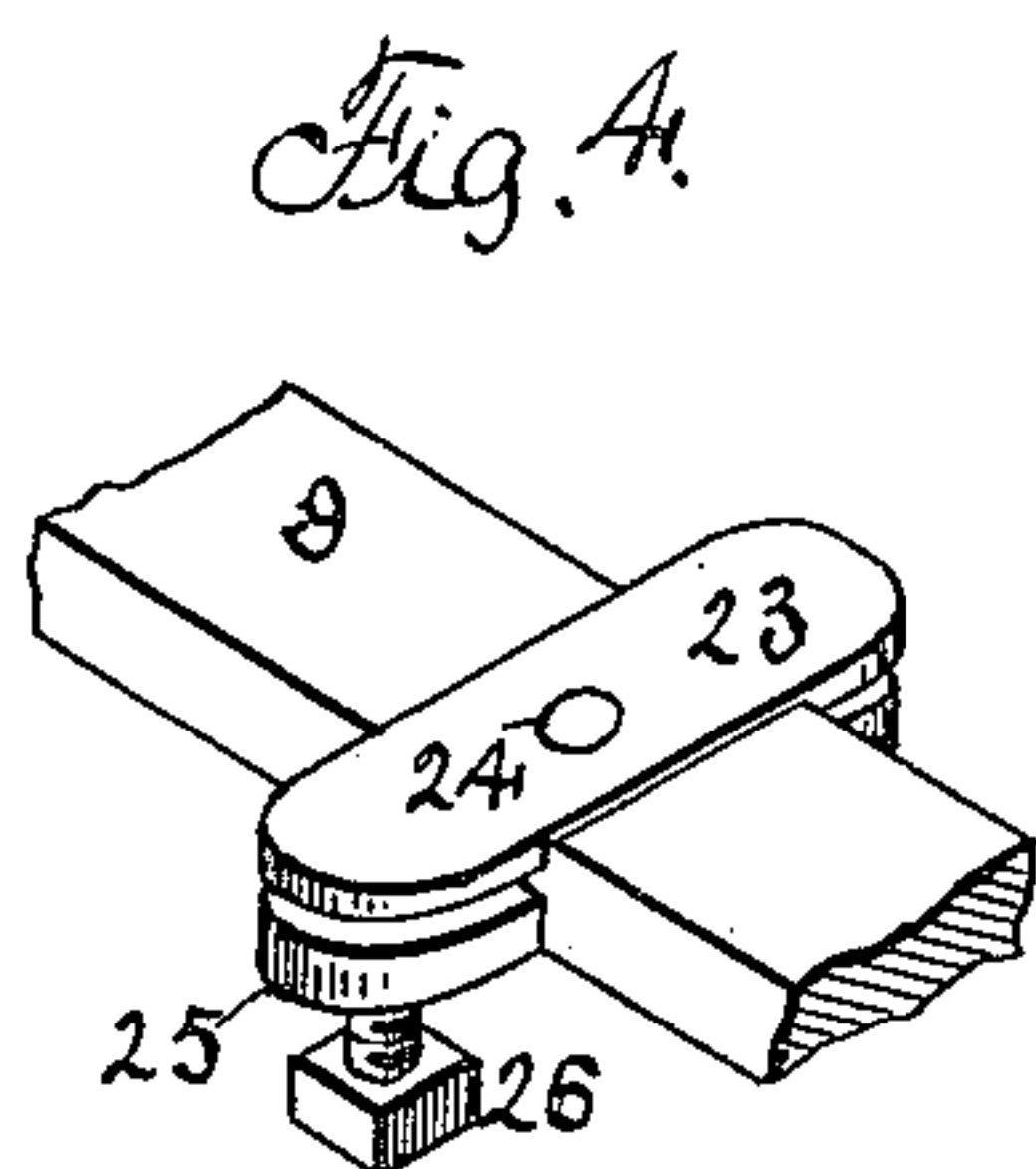
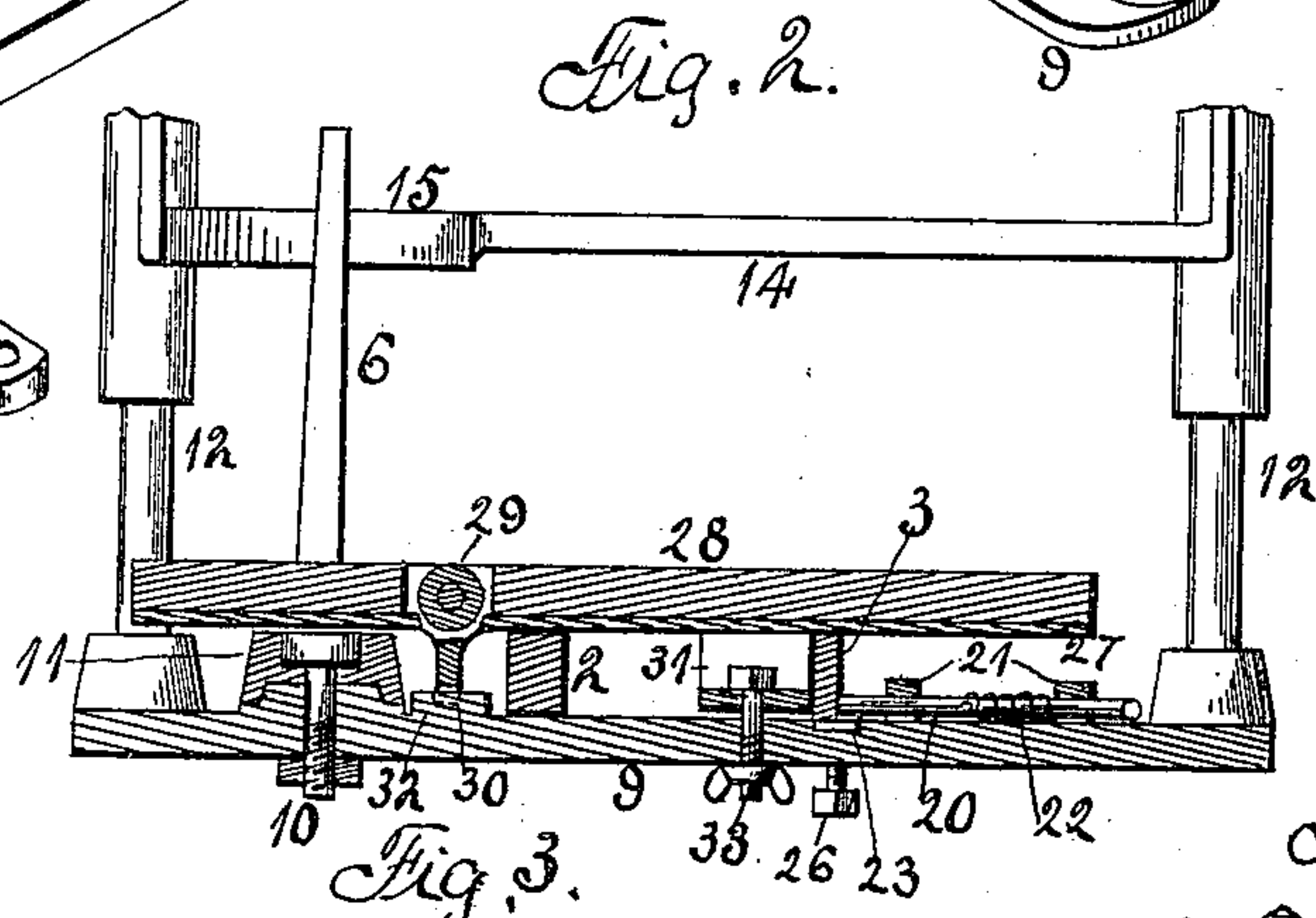
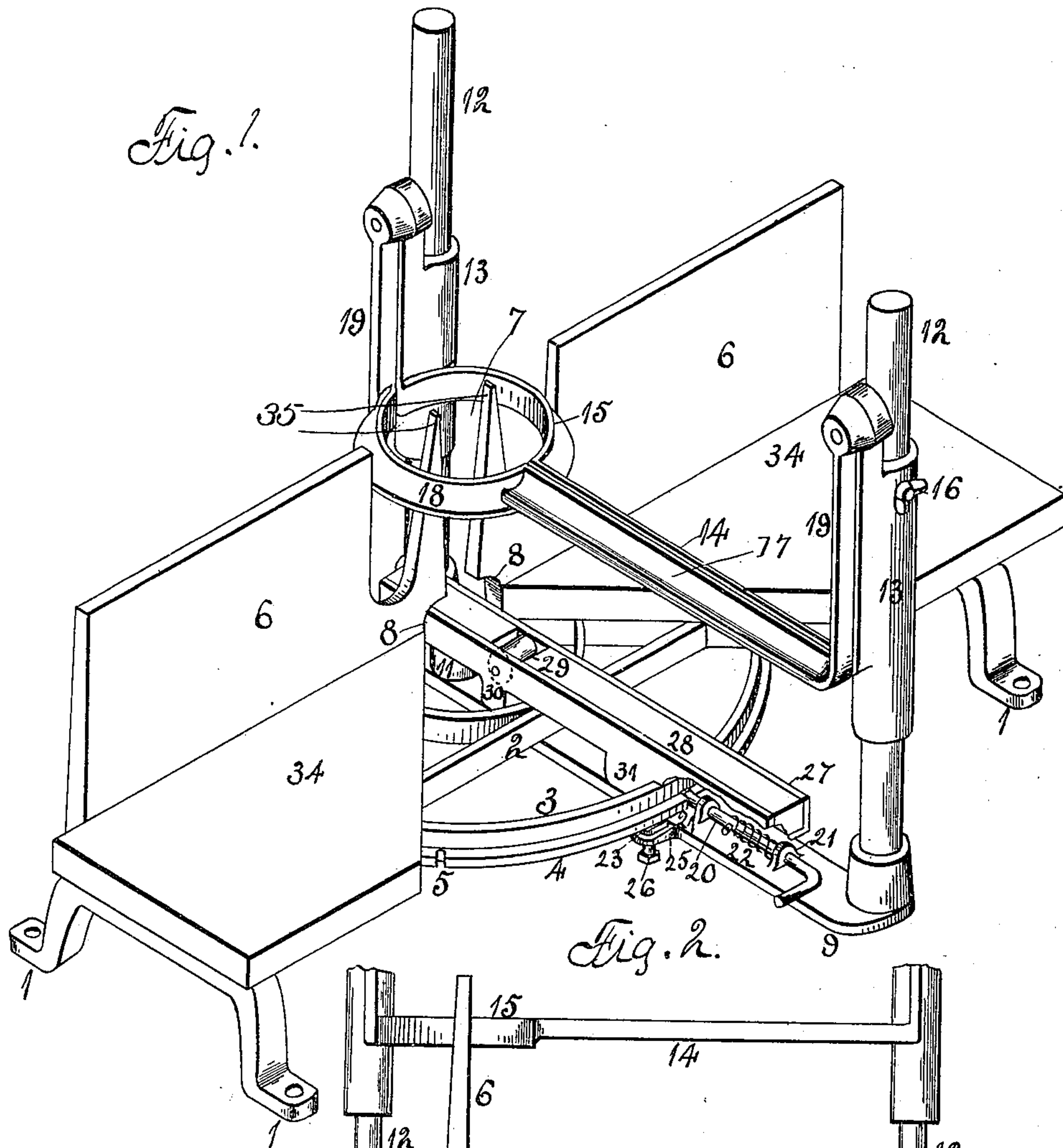
Patented Jan. 22, 1901.

A. BURKMAN.

MITER BOX.

(Application filed Apr. 24, 1900.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

AARON BURKMAN, OF ROCKFORD, ILLINOIS.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 666,465, dated January 22, 1901.

Application filed April 24, 1900. Serial No. 14,326. (No model.)

To all whom it may concern:

Be it known that I, AARON BURKMAN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a specification.

The object of this invention is to construct a miter-box in which the saw is guided between its supports and in which a lead roller is located in the path of the saw, upon which it strikes.

In the accompanying drawings, Figure 1 is an isometrical representation of my improved miter-box. Fig. 2 is a lengthwise section of the wood-cutting strip and its support. Fig. 3 is a transverse view of the cutting-strip and adjusting-screw. Fig. 4 is an isometrical representation of the strip 23 and its connections. Fig. 5 is an isometrical representation of the connection between the cutting-strip and bar 9.

The main frame or base of the miter-box consists of the feet 1, supporting the bars 2 and curved front bar 3. This curved front bar has a projection 4 at its base and provided with notches 5. A vertical back 6 rises from the base and has a central vertical opening 7 and horizontal openings 8 at the base of the vertical opening. A horizontal bar 9 has a pivotal connection with the base at a point below the vertical opening. The pivotal connection consists of a bolt 10, its head located in a recess in the hub portion 11 of the base. From each end of the bar 9 rise cylindrical posts 12, and these posts support one half of the saw-guide, consisting of the vertical tubular guides 13, movable on the posts, the guides connected by a horizontal guide 14, having an outward bend 15 near the back 6. A thumb-screw 16 is supported by one of the tubular guides and serves to hold the saw-guide at any point in its vertical adjustment. To the upper end of the tubular guides is secured the other half of the saw-guide, consisting of the horizontal portion 17, having an offset 18, and the vertical sections 19, connected at their upper ends to the upper ends of the tubular guides, leaving a space between them sufficient to accommodate a saw.

Upon the upper face of the bar 9 is located a plunger 20, guided in supports 21, and a

spring 22 surrounds the plunger, holding it toward the projection 4. The end of this plunger is turned at right angles to the main portion, forming a finger-hold for moving the plunger. This plunger is intended to enter the notches 5 in the projection 4.

The upper face of the bar 9 has a transverse groove, within which is located a flat strip 23, held from lengthwise movement by the stud 24.

Ears 25 extend from the sides of the bar 9 and are located under the strip 23. These ears support set-screws 26, and by means of which the bar 9 can be adjusted to stand the supports 12 vertically or at an angle to a vertical line. The strip 23 bears against the under face of the curved bar 4 and, owing to its length, prevents the bar from twisting.

Upon the bars of the frame is located a grooved support 27 for the wood-cutting strip 28. This support extends across the center of the pivotal connection between the bar 9 and main frame. A roller 29, of lead, is located within the grooved support, its upper face being on a level with the upper surface of the wood-cutting strip. From the under face of the grooved support depend two projections 30 and 31. The projection 30 has a notch which is placed over a projection 32, rising from the upper face of the bar 9, and prevents lateral movement of that end of the grooved support independent of the bar 9. The projection 31 is connected to the bar 9 by a bolt 33, having a thumb-nut which permits of the rocking movement of the bar 9 and the grooved support resting upon the bars of the main frame.

The material to be cut is placed upon the table 34, under the bars 15 and 18 of the saw-guide. The saw-guide is then adjusted by means of the plunger, so as to cut a miter or at right angles to the material, and when the cut is finished the saw will come in contact with the lead roller, thereby saving the cutting-strip.

The horizontal bars 14 and 17 form a guide for the saw between the vertical guideways 13 and 19 and in which an ordinary saw can be used.

By means of the thumb-nut connected to the bolt 33 the cutting-strip and saw-guide can be connected to the main frame at any point along the curved bar 4, so that any angle

can be cut within the limits of the curved bar.

The horizontal bars 14 and 17 of the saw-guide are on a higher plane than the curved portions 15 and 18 in order that the teeth of the saw will be below the horizontal bars.

By means of the laterally-extending curved portions 15 and 18 of the saw-guide the projections 35 are located within the space formed by the curved portions, against which the material to be cut rests, and the curved portions rest upon the material.

I claim as my invention—

1. In a miter-box, the combination of a base, a bar pivoted to the base, two posts rising from the bar, one each side of its pivotal connection, and a saw-guide supported by the posts and forming a connection between them, the guide having a lengthwise slot and lateral curved portions, the lower edge of the saw-guide being on a higher plane than the lower edges of the curved portions.

2. In a miter-box, the combination of a base, a bar having a pivotal connection with the base, two posts rising from the bar, a saw-guide supported by the posts, a loose plate supported by the bar and located transversely thereto, and two set-screws supported by the bar engaging the plate.

3. In a miter-box, the combination of a base, a bar pivoted to the base, a saw-guide supported by the bar, a cutting-strip support having an adjustable connection with the bar, and a lead roller located in line with the cutting-strip its upper face being substantially level with the upper face of the cutting-strip.

4. In a miter-box, the combination of a base, a bar pivoted to the base, a saw-guide supported by the bar, a cutting-strip support having an adjustable connection with the bar.

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Witnesses:

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