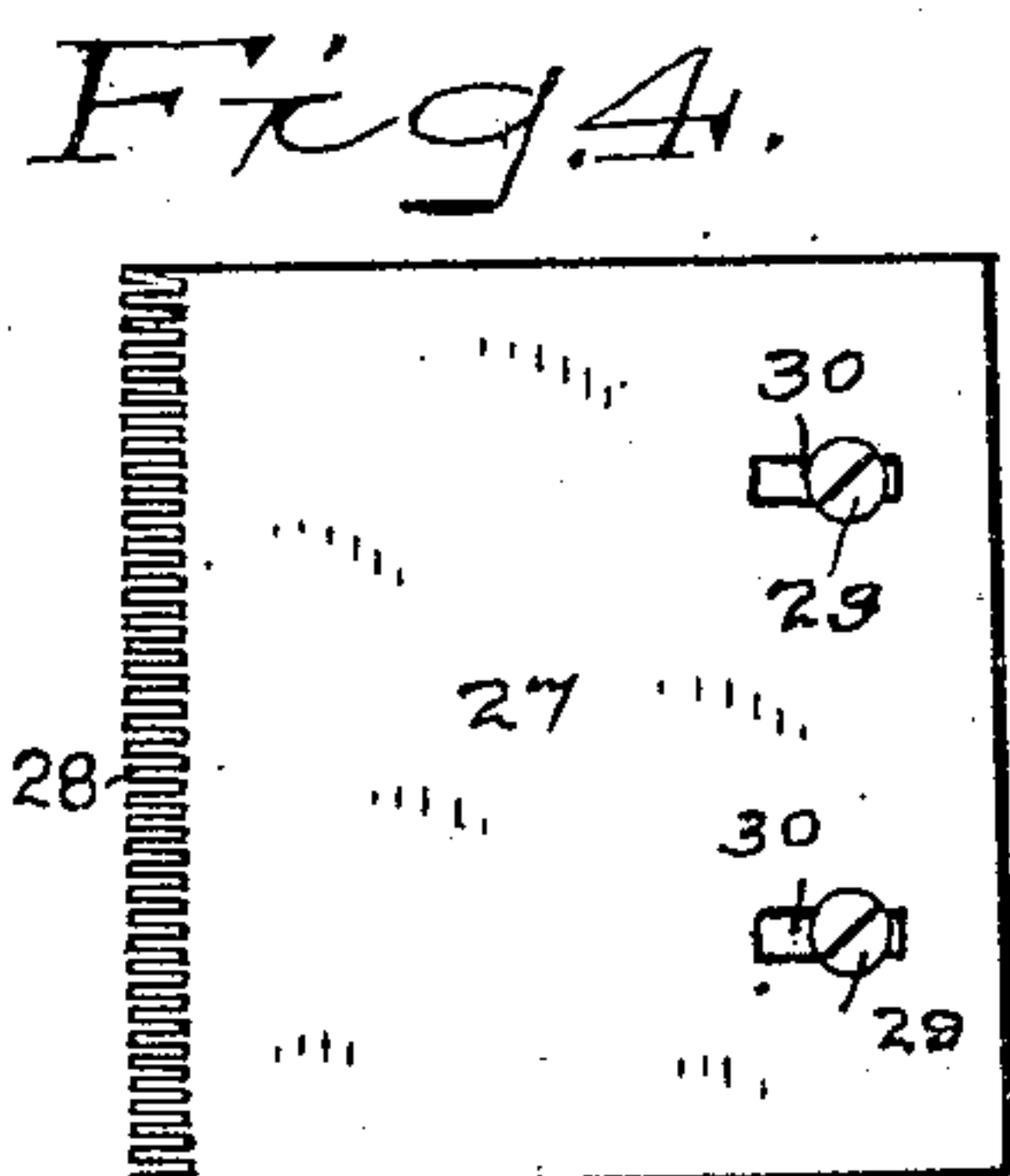
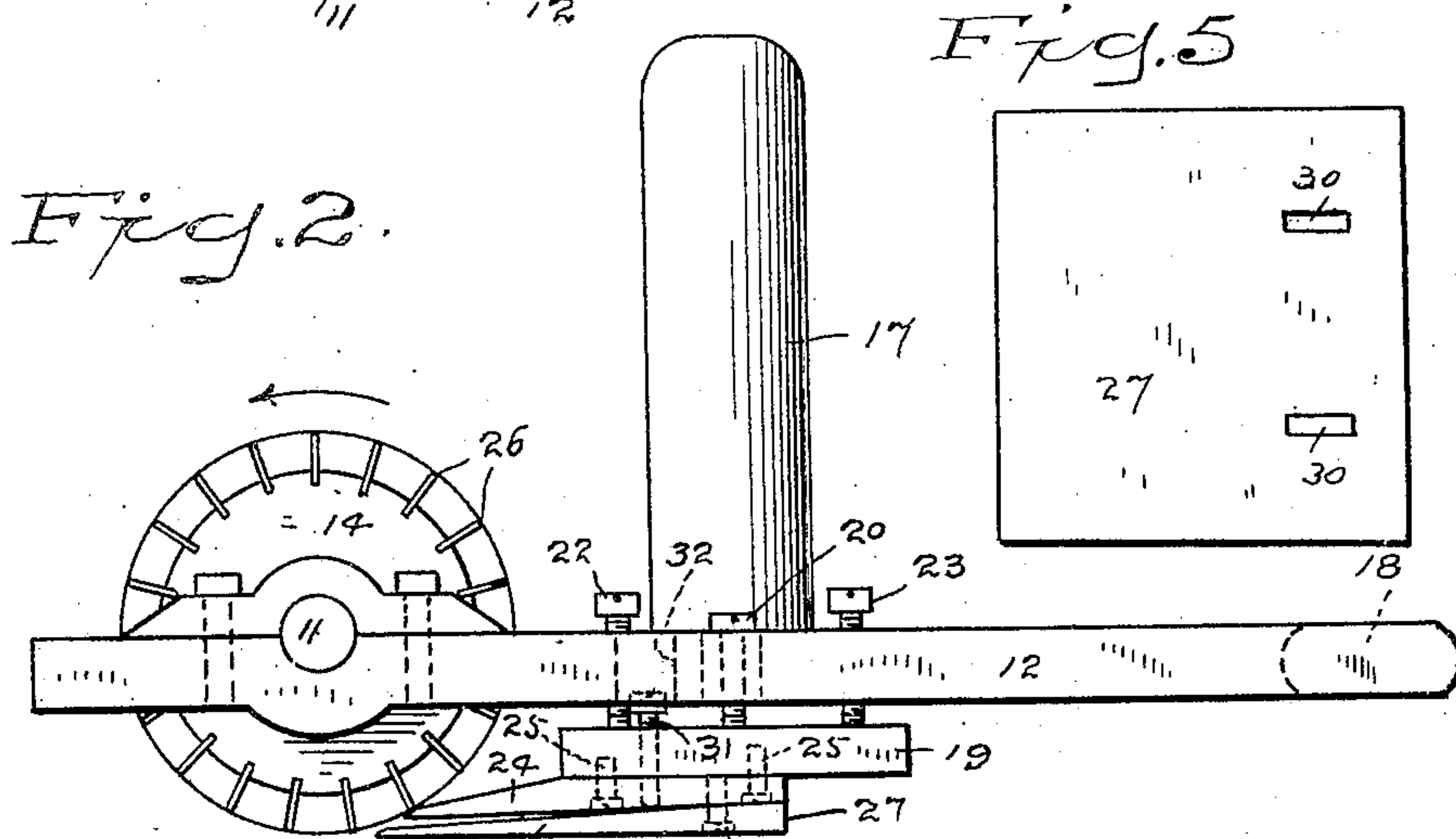
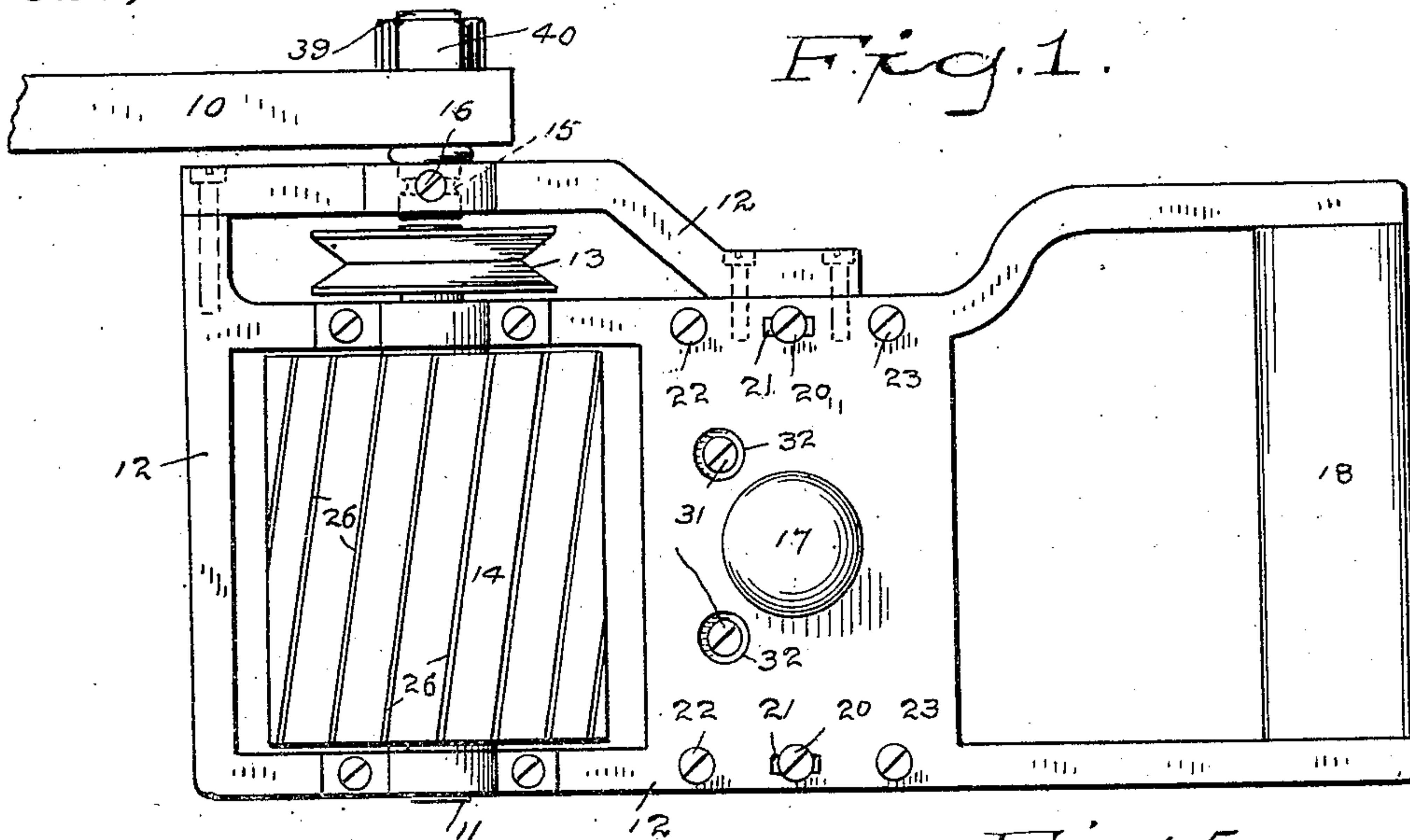


J. H. STARR.
MACHINE FOR CLIPPING BLOCKED HAT BODIES.
APPLICATION FILED JAN. 30, 1909.

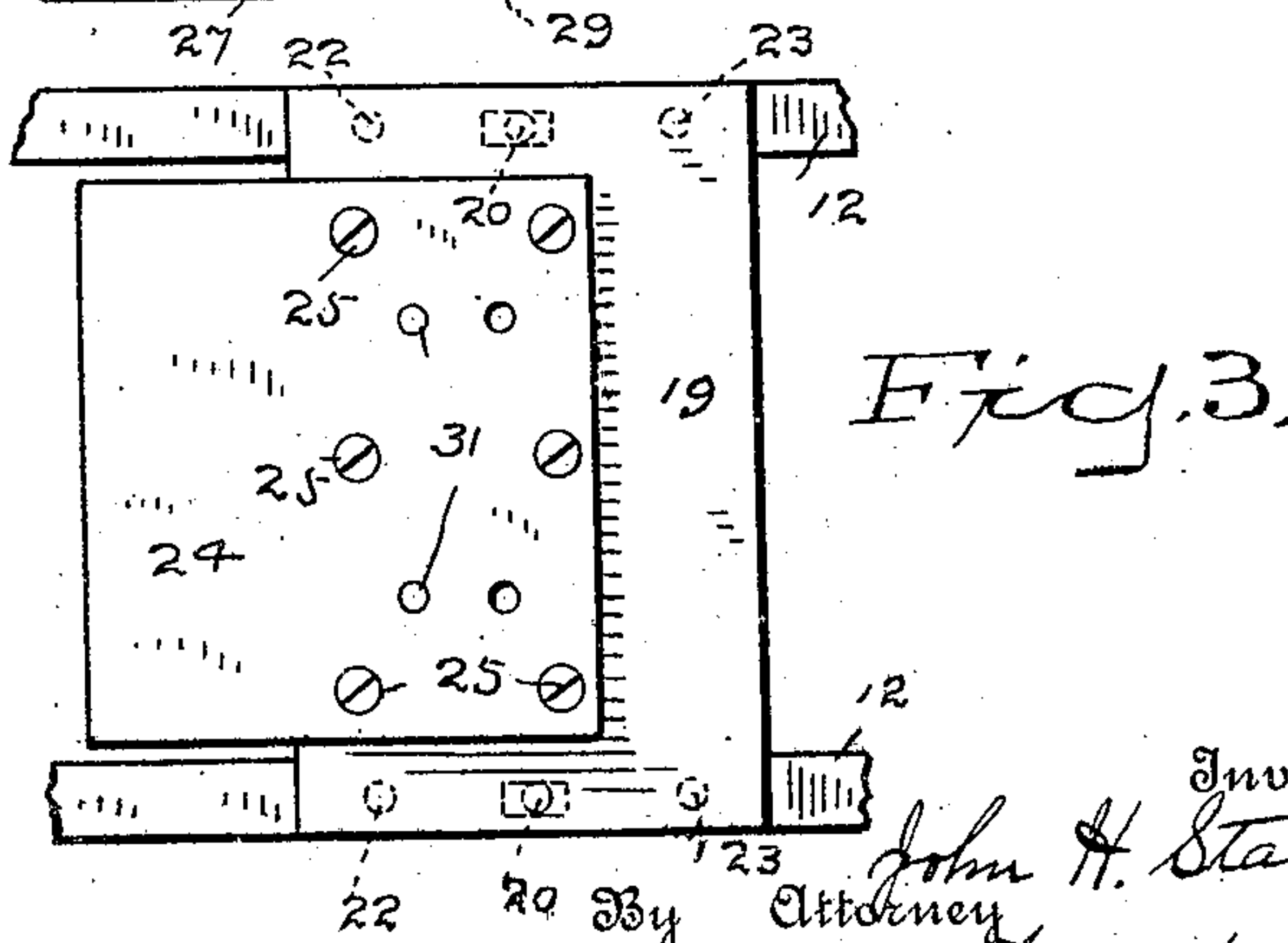
925,608.

Patented June 22, 1909.



Witnesses:

H. F. Lamb.
S. W. Aikerton.



Inventor

John H. Starr

Attorney

A. M. Wooster

UNITED STATES PATENT OFFICE.

JOHN H. STARR, OF DANBURY, CONNECTICUT, ASSIGNOR TO E. A. MALLORY AND SONS, INCORPORATED, OF DANBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

MACHINE FOR CLIPPING BLOCKED HAT-BODIES.

No. 925,608.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed January 30, 1909. Serial No. 475,174.

To all whom it may concern:

Be it known that I, JOHN H. STARR, a citizen of the United States, residing at Danbury, county of Fairfield, State of Connecticut, have invented a new and useful Machine for Clipping Blocked Hat-Bodies, of which the following is a specification.

This invention relates to devices for clipping or trimming the nap of felt hat bodies so that the surfaces of the hat may be uniformly finished, and the invention has particular reference to devices for operating on hat bodies after they are stiffened and blocked, the construction being such that the length of the nap left after the clipping operation, may be regulated as may be desired.

One of the objects of the invention is to provide a clipping device which may be readily controlled by hand as to its movements relatively to the surface of the stiffened and blocked hat body, while the clipping members continue in operation.

Another object of the invention is to provide a device of this character having means whereby the distance of the point where the cutting operation takes place, relatively to the main body of the hat, may be readily varied, according to the length of nap desired on the finished hat.

Other objects are to provide improvements in details of devices of this character, all tending to economy in the cost of the clipping device, convenience of use, and facility of handling.

To these ends the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings:—Figure 1 is a plan view of so much of the appliance embodying my invention as will be necessary to an understanding of the same. Fig. 2 is an elevation of the same. Fig. 3 is a detail under plan view, with the nap plate removed. Fig. 4 is an under plan view of a toothed-edged nap plate and its attaching screws removed from attachment to the cutter plate shown in Fig. 3. Fig. 5 is an under plan view of a plain-edged nap plate.

Similar reference characters indicate the same or similar parts in all of the views.

At 10 I have indicated a suitable arm which supports the appliance, which arm may be connected at its other end to any

suitable support, as by some universal joint. I have not attempted to illustrate any particular connection for the arm 10, it being sufficient for the present purposes to have it understood that said arm 10 might be a stationary or a swinging one. If stationary, the blocked hat body will be presented to the clipping devices, while if the arm 10 is a swinging one, my appliance may be swung to the hat and moved over it.

Rotatably mounted in a frame 12 is a shaft 11, said frame having an opening for a belt pulley 13 and another opening for the knife cylinder 14. The pulley 13 and cylinder 14 are of course connected to the shaft so as to be rotated by any suitable belt on the pulley 13. As shown in Fig. 1, the frame is secured to the arm by means of a bolt 39 and a nut 40. The bolt is formed with an annular groove 15 into which one or more screws 16 project to secure the frame to the arm but in a manner that will permit said frame to be held stationary or to be swung upward or downward on said bolt as a pivot. The frame is preferably provided with handles 17 and 18 to enable the operator to conveniently manipulate the appliance.

A block 19 is secured to the frame 12 by screws 20 passing through slots 21 in the frame so that the position of said block 19 relatively to the knife cylinder may be adjusted. In order that said block 19 may be adjusted more or less below the frame 12, or adjusted somewhat out of parallelism with said frame, screws 22 are tapped through the frame in front of the screws 20, and screws 23 are tapped through the frame behind said screws 20, all of the screws 22 and 23 bearing on the upper surface of the block 19. By loosening the screws 20, the distance of the block 19 as a whole, from the frame 12, may be increased, and then said block 19 may be held firmly against tilting or may be set tilted somewhat one way or the other by properly adjusting the screws 22 and 23. Of course by loosening all of the screws 22 and 23 and tightening the screws 20, the block 19 may be set closer to the frame 12. Secured to the block 19, as by screws 25, is a cutter plate or blade 24, said cutter plate having a beveled edge to co-act with the knives 26 of the cylinder 14 in a manner that will be presently described. Of course the adjustments of the block 19,

as just described, enable the edge of the cutter plate 24 to be accurately set in proper proximity to the edges of the cylinder knives 26. This adjustment becomes of a special value when the cutter plate becomes worn and it is necessary to re-grind its front edge.

As will be readily understood, whenever a hat body having a nap is presented to the point of co-action of the knives 26 with the edge of the cutter plate 24, the rotation of the cylinder 14 in the direction of the arrow in Fig. 2 will cause the fibers to be carried by said knives 26 against the edge of the cutter plate 24, so that the fibers will be severed in the same manner as that in which shears operate.

I will now describe the means whereby the length of the nap remaining on the hat may be controlled. A nap plate 27, which may or may not be provided with fingers or teeth 28 at its front edge, is secured to the under face of the cutter plate 24 by screws 29 which pass through slots 30 in said plate 27 so that the latter can be adjusted forward and back. Said plate 27 tapers from its rear to its front, as clearly indicated in Fig. 2. To vary the distance at which the edge of the nap plate will stand from the path of movement of the cylinder knives, I employ screws 31 tapped through the block 19 and bearing upon the upper face of the plate 27 forward of its attaching screws 29. Obviously the screws 31 and 29 can be so manipulated as to greatly vary the distance at which the edge of the nap plate will stand from the knife cylinder, since the said plate 27 bears against the plate 24 at the rear of the attaching screws 29. To enable the heads of the screws 31 to be conveniently reached for adjusting them, the frame is provided with openings 32 as shown in Fig. 1.

It will now be readily understood that whenever a portion of a hat or body is brought into proximity of the edge of the nap plate, or when the appliance is carried into proximity of the hat body, such nap of the body as may have greater length than the distance from the edge of the nap plate to the point of coöperation of the shearing members will be trimmed off, and such trimming will be uniform, the edges of the knives 26 when the cylinder is rotated in the direction of the arrow in Fig. 2, sweeping the nap up against the edge of the nap plate and carrying the ends of the fibers against the edge of the cutter plate 24.

If a blocked hat is supported beneath the device, and the arm 10 be supported so as to possess more or less universal movement, the appliance can be run over the hat body in

any direction, the handles 17 and 18 being especially used when going forward and backward over a hat so as to enable the appliance to properly follow the contour of the hat.

It will be observed that the gage means comprising the plate 27 and its adjusting devices and support, are supported by the appliance at one and the same side of the point where the hat is presented for the action of the shearing members. In other words, with the parts in the position shown in Fig. 2, the hat will be presented to the appliance from below, or the appliance moved down to the hat from above, all of the parts of the appliance including the shearing members and the gaging means being above the plane of the hat, so that the gaging means act on the same side or surface of the hat as that which is acted on by the cylinder knives.

I do not limit myself to the precise details described and illustrated, as the same may be variously modified within the limits of mechanical skill.

Having now described my invention, what I claim is:—

1. A hat clipping appliance comprising a frame, a rotary knife-carrying cylinder mounted therein, a cutter plate fixed to said frame for coöperating with the knives of the cylinder, means for adjusting said cutter plate relatively to the cylinder, and a nap plate having its edge in proximity to the point of coöperation of the shearing members, said nap plate being adjustable relatively to the shearing members and independently thereof.

2. A hat clipping appliance comprising a frame pivotally connected with a support, said frame having a handle, a rotary knife-carrying cylinder mounted in the frame concentric with the pivotal support of said frame, a cutter plate fixed to said frame for coöperating with the knives of the cylinder, and means for gaging the length of the nap clipped.

3. A hat clipping appliance comprising a frame, a rotary knife-carrying cylinder mounted therein, a block adjustably connected with said frame, a cutter plate removably connected with said block, and a nap plate adjustably connected to said cutter plate.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN H. STARR.

Witnesses:

GERTRUDE E. SHAW,
NELLIE A. MOORE.