

M. R. BUCK & M. L. TODD.

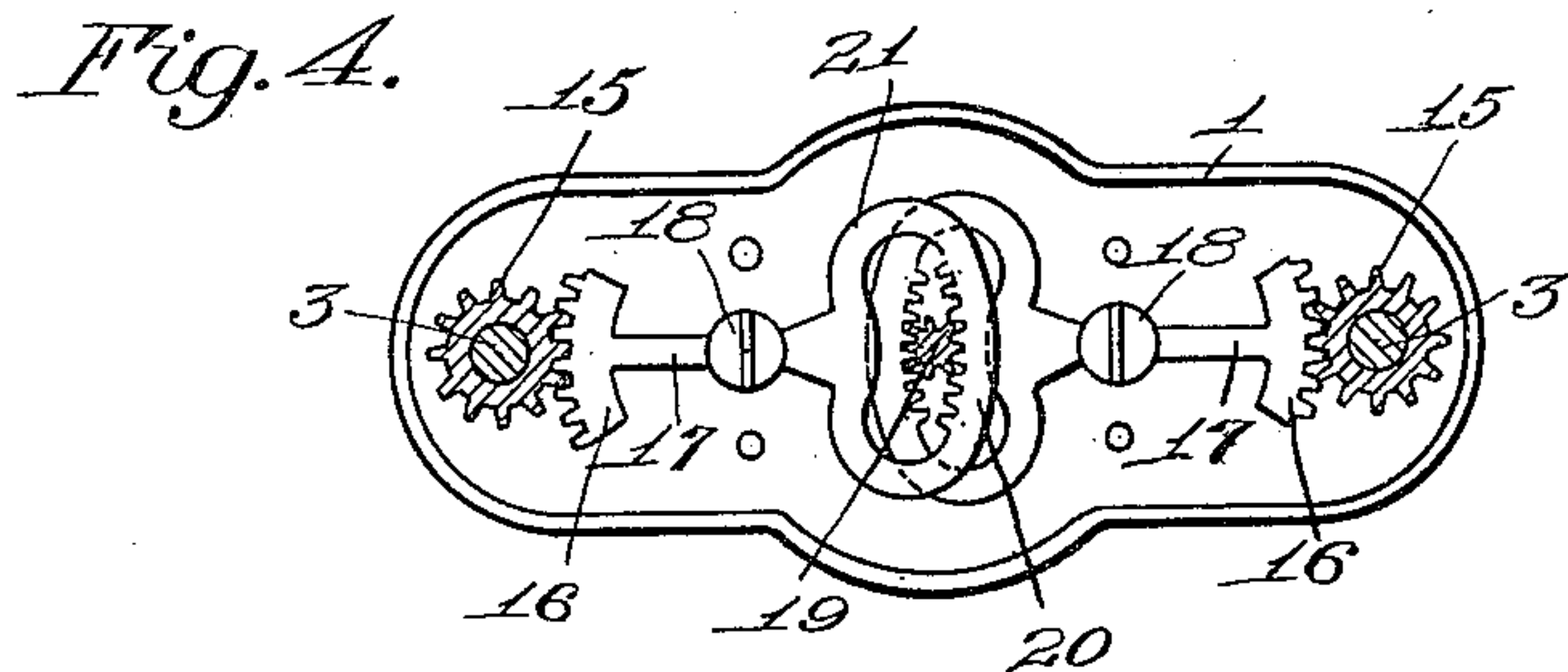
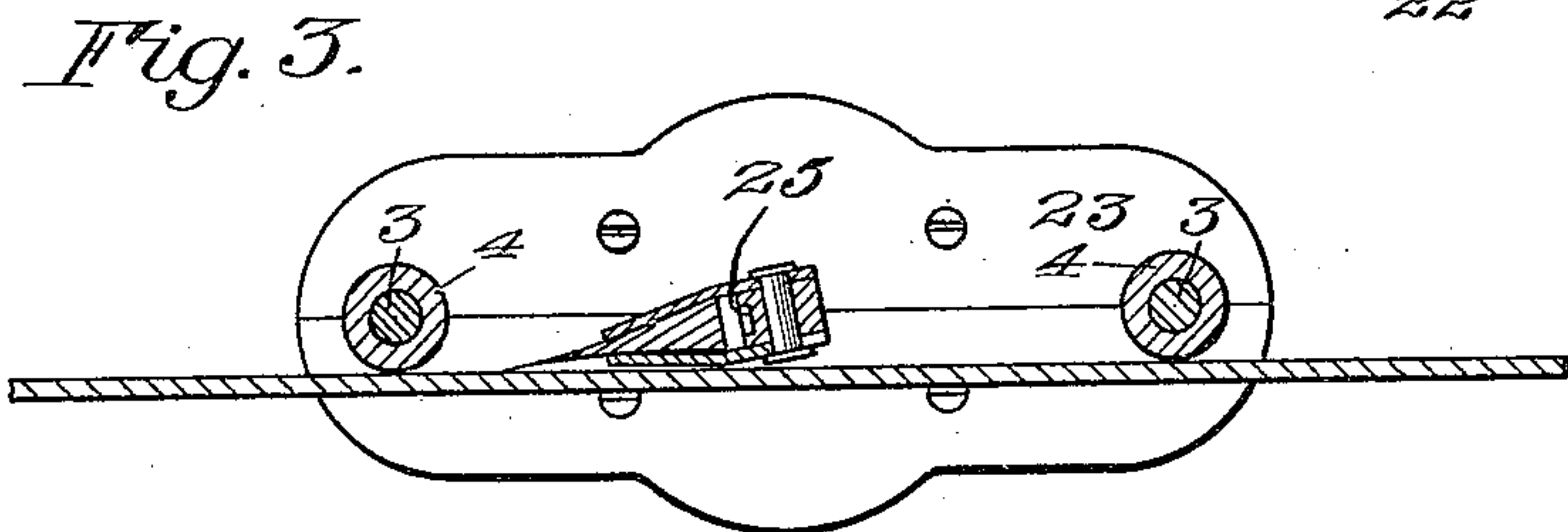
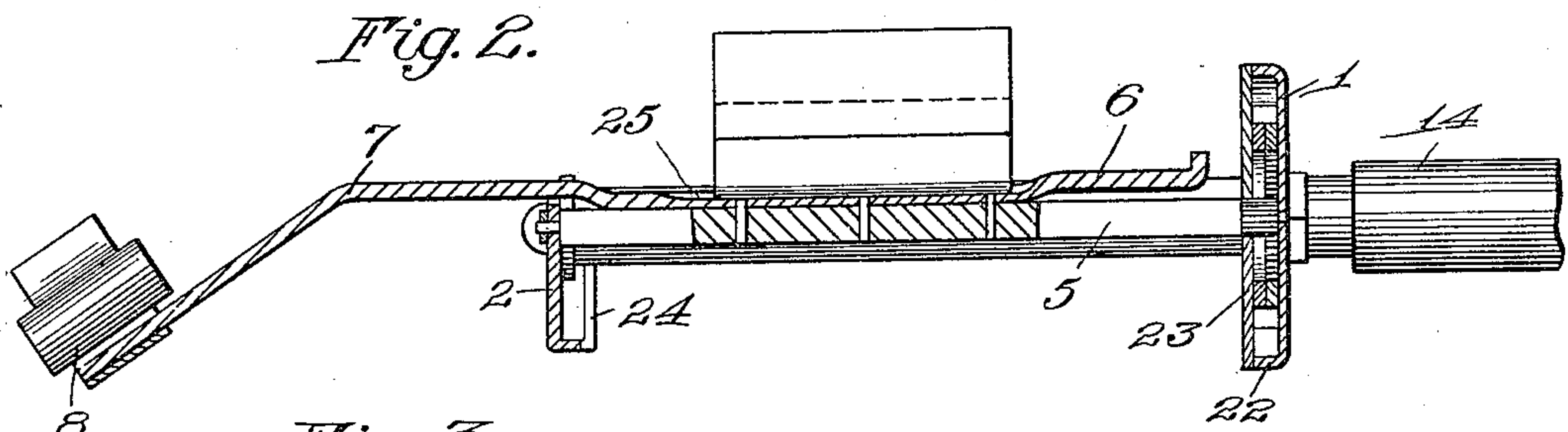
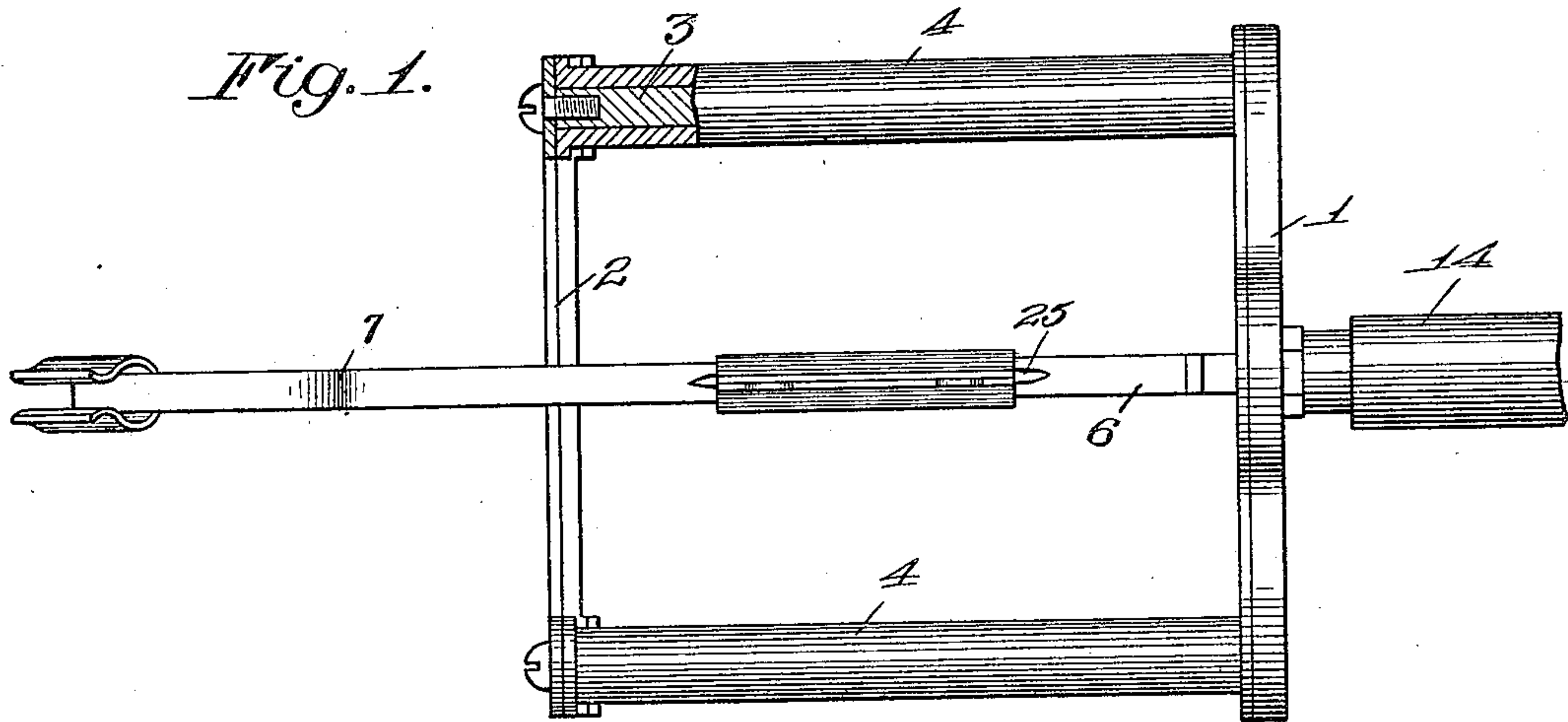
RAZOR STROPPER.

APPLICATION FILED JUNE 10, 1910.

993,345.

Patented May 30, 1911.

2 SHEETS—SHEET 1.



Witnesses

Nelson C. P.

Russell B. Giffels

Inventors
Miles R. Buck
& Marvin L. Todd

By *Charles R. Rich*

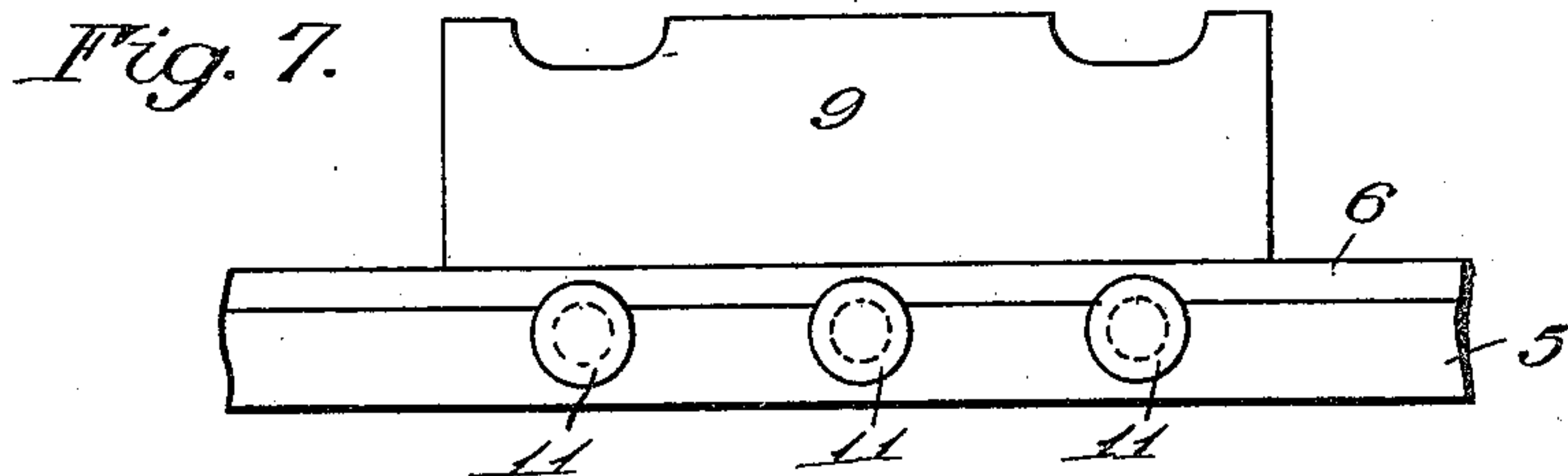
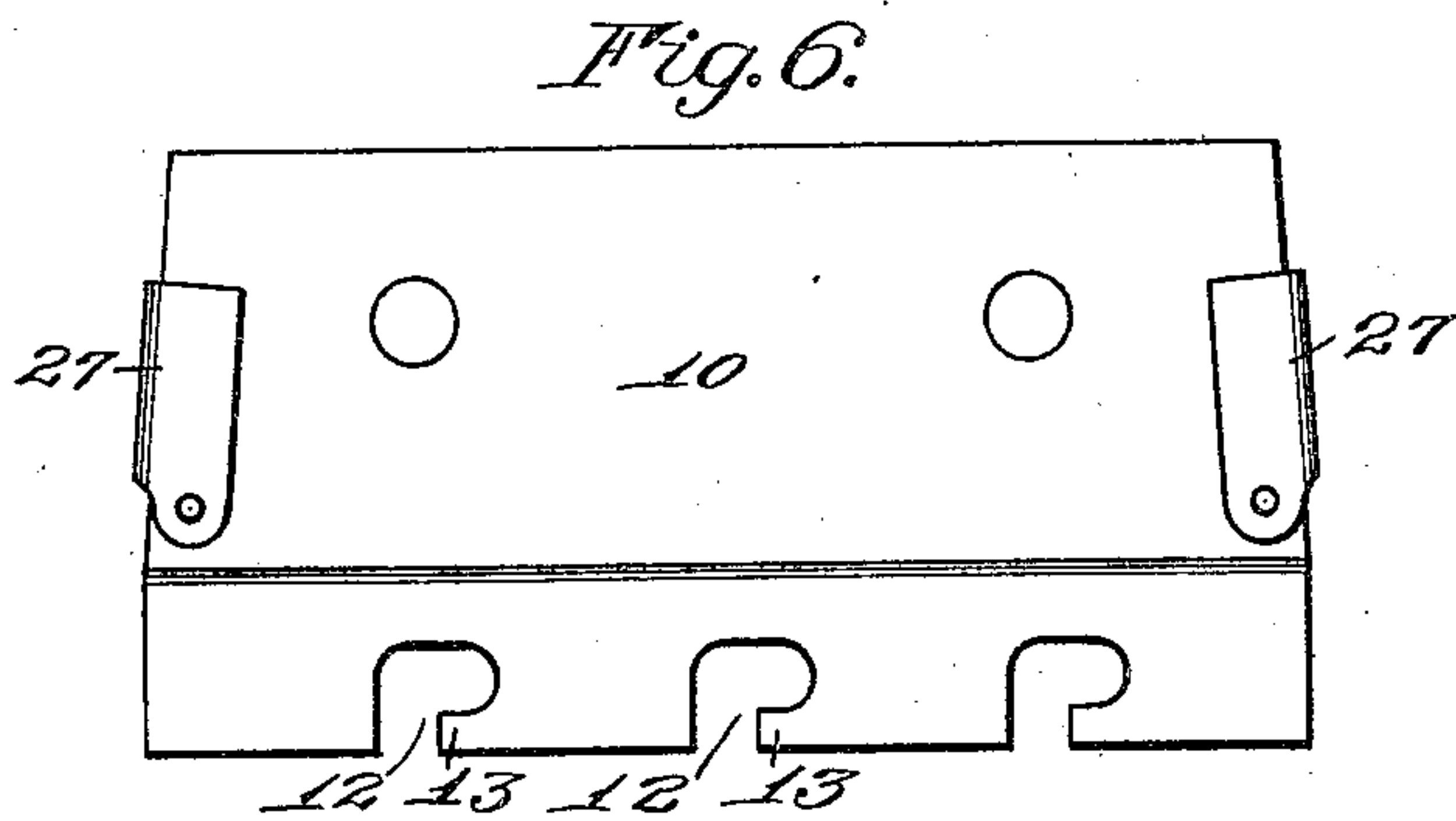
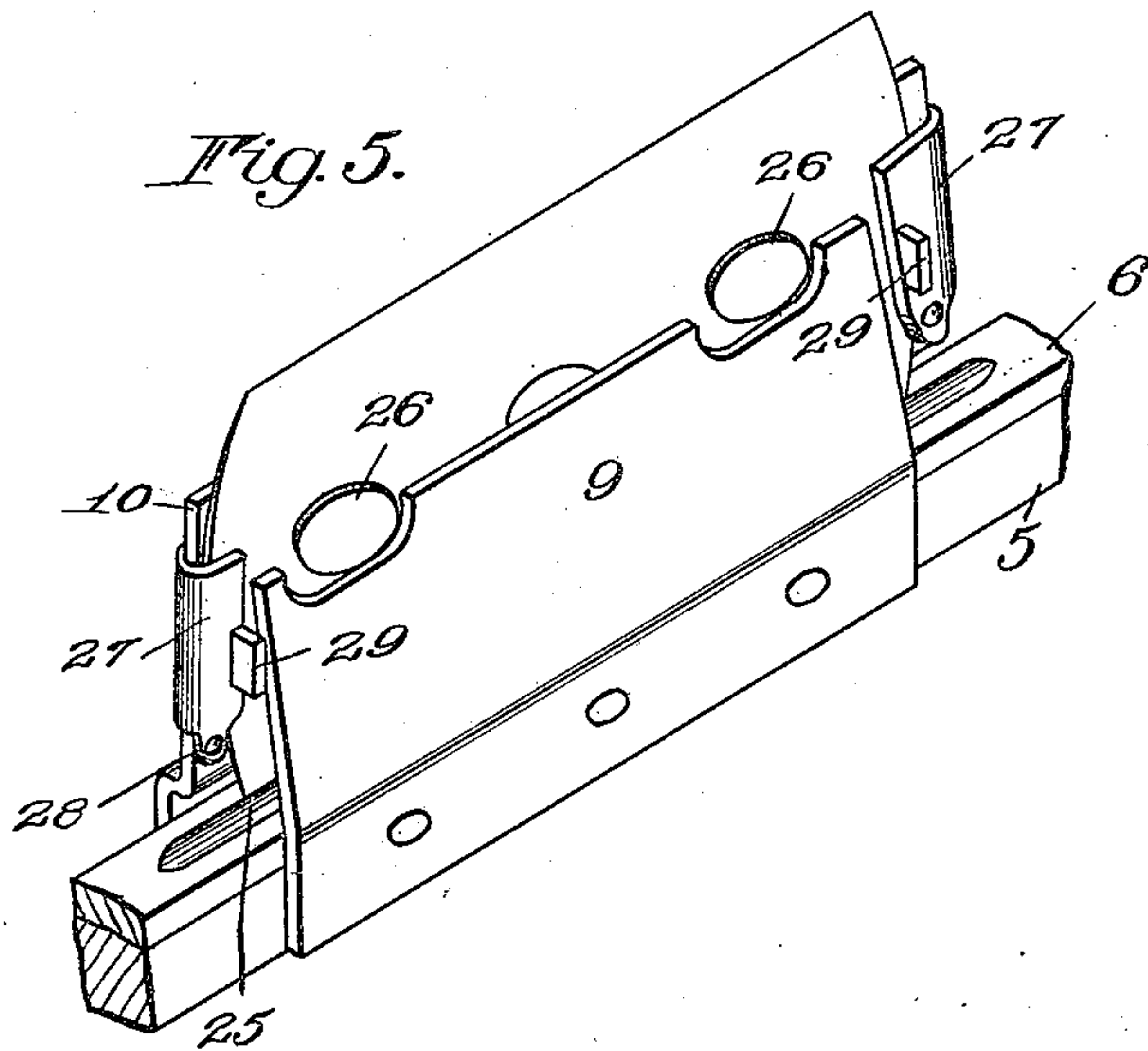
Their Attorneys

M. R. BUCK & M. L. TODD.
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2 SHEETS—SHEET 2.



Witnesses

Nelson Copp
Russell B. Lippitt

Inventors

Miles R. Buck
+ Marvin L. Todd

By

Charles R. Ritt

Their Attorneys

UNITED STATES PATENT OFFICE.

MILES R. BUCK AND MARVIN L. TODD, OF ROCHESTER, NEW YORK, ASSIGNORS OF
ONE-THIRD TO FRED C. ROY, OF ROCHESTER, NEW YORK.

RAZOR-STROPPER.

993,345.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed June 10, 1910. Serial No. 566,179.

To all whom it may concern:

Be it known that we, MILES R. BUCK and MARVIN L. TODD, both of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Razor-Stroppers; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of the specification, and to the reference-numerals marked thereon.

Our present invention relates to razors and it has for its object to provide a light, cheap and convenient stropper for a razor blade whether of the usual or safety type.

A further object of the invention is to provide a holder into which the blades can be inserted or withdrawn with great facility and which will be adapted for blades having different characteristics.

To these and other ends the invention consists in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a top plan view of a stropper constructed in accordance with and illustrating one embodiment of our invention; Fig. 2 is a central longitudinal section therethrough; Fig. 3 is a transverse section; Fig. 4 is an elevation of the handle attaching rail of the frame showing the housing in which the transmission mechanism is preferably arranged; Fig. 5 is a detail perspective and enlarged view of the blade holder; Fig. 6 is an elevation of one of the blade clamps, and Fig. 7 is an elevation of the other clamp and adjacent parts.

In the practice of our invention we provide a frame composed of a front rail 1, a rear rail 2 and intermediate connecting bars 3 forming journals for the driving rollers 4 that travel on the strop substantially as shown in Fig. 3. Between and parallel with the rollers 4 is a rock shaft 5 for the blade holder which is journaled in the rails of the frame and which carries a backing 6 that is preferably extended beyond the rear rail 2, as at 7, and provided with a suit-

able clip 8 for retaining the handle of an ordinary razor when the blade thereof is within the holder hereinafter described.

Preferably rigidly secured at one side of the backing 6 and shaft 5 is a spring jaw 9, while on the other side is provided a preferably detachable spring jaw 10 and it is between these jaws that the razor blade is held. The jaw 10 has an interlocking connection with its supporting part comprising, in the present instance, a plurality of headed studs 11 on the latter that enter L-shaped openings 12 in the lower edge of the jaw, so formed as to provide locking shoulders 13. As the studs enter these openings by a movement of the jaw transversely of the position of the blade and then move sidewise therein with a movement of the jaw longitudinally of the position of the blade the shoulders 13 engage behind them and produce a rigid relation between the parts.

The handle clip 8, before referred to, is so formed as to present a low center of gravity to the end that the weight thereof, together with the weight of the handle itself, will normally maintain the blade while in the holder in an upright position with its cutting edge raised, the position of the parts being as shown in Figs. 1 and 2. During the stropping operation the frame is moved along the strop by means of a handle 14 attached to the rail 1 so that the driving rollers 4 travel thereon. Each of these rollers is provided at its front end with a gear 15 that meshes with a segment 16 on one end of an oscillating member 17 pivoted at 18 intermediate the roller bearing and the rock shaft 5 of the blade holder. The end of the latter is also provided with a pinion 19 that meshes with a segment 20 on the opposite end of the member 17, this segment being produced by the provision of inner teeth on an eye or yoke 21 on the member whereby both segments engage on corresponding sides of the gears with which they mesh to produce the movements of the blade hereinafter described.

The front rail 1 of the frame is preferably formed of a plate having inwardly or rearwardly turned flanges 22 with which coop-

erates a guard plate 23 forming a housing within the rail that accommodates the driving devices 17 as well as the gears 15 and 19. By this arrangement, it will be seen
 5 that the cutting edge of the blade will always be turned in the opposite direction from that in which the frame is moving on the strop, the traction of the rollers bringing about this result by rocking the blade
 10 holder shaft 5. In Fig. 3, for instance, the device is moving to the right and the edge of the blade is being dragged across the strop in the desired manner. The guard plate 23, which may be formed in one or
 15 two parts as desired, coöperates with one edge of the strop for guiding purposes, while upwardly turned extensions 24 on the opposite rail 2 in the region of the rollers performs the same function at the other
 20 edge.

The description so far has involved the stropping of the ordinary folding razor alone, it not being necessary, however, to remove the clamping jaw 10 for the inser-
 25 tion of the blade thereof as it can be readily sprung into place. For other blades, however, such as those of the various safety razors now in common use, special provision is made for accommodating the differently
 30 shaped blades.

A blade of the type corresponding to the ordinary razor blade, the principal difference being that it is shorter, is accommodated in the same manner, viz. by springing
 35 it in between the jaws, as shown in Fig. 3. If the back of the blade is narrower, however, than that of the one referred to so that it does not reach from jaw to jaw at this point, it is steadied by engaging within a
 40 channel or groove 25 provided for the purpose and which extends longitudinally of the backing 6 between the jaws, the latter engaging at their outer edges upon the opposite sides of the blade nearer the edge
 45 thereof as before.

For retaining the double edged perforated blades one of the jaws, preferably the detachable one, is provided with projections
 50 26 that coöperate with the perforations and support that edge of the blade that is not being operated upon out of contact with the backing 6, the sides of the blade being engaged between the clamping portions of the jaws as before. The blade is also held se-
 55 curely and additionally by a pair of substantially U-shaped clips 27 pivoted to one of the jaws, preferably the detachable one, at 28 and movable to the operative position shown in Fig. 5, in which it engages the
 60 outer side of the jaw on which it is mounted and that side of the blade that is opposite to the one in contact with the said jaw. The clip preferably is fitted with a projection 29 forming a finger piece extending be-
 65 yond the opposite jaw 9 and readily acces-

sible for either loosening or tightening the clip. In the case of a flat blade that is not perforated and in other instances the clip may be relied upon alone to hold the blade in proper position.

It will be seen that with a stropper constructed in accordance with our invention a wide range of usefulness is obtained and very little effort or adjustment is required to interchange blades of widely varied na-
 75 ture.

We claim as our invention.

1. In a razor stropper, the combination with a frame having a driving roller adapted to coöperate with the strop and a gear on
 80 the shaft of said roller, of a blade holder journaled in the frame and having a gear thereon and an oscillating member pivoted intermediately to the frame between the roller and blade holder and having toothed
 85 segments at its ends meshing with the respective gears on corresponding sides of the latter.

2. A blade holder for razor stroppers comprising a backing having a recess there-
 90 in for steadying the back of the blade and clamping jaws on opposite sides of the recess for engaging the lateral faces of the blade, said recess being spaced from the jaw to permit the insertion of a wider blade be-
 95 tween the latter with its back spanning the recess.

3. A blade holder for razor stroppers comprising a backing and a pair of clamp-
 100 ing jaws, one of said jaws being detachable and having an interlocking connection with the backing embodying a plurality of locking studs on one member and corresponding openings forming shoulders in the other
 105 against which latter the studs lock by a movement of the jaw transversely of the position of the blade to bring the studs within the openings followed by a move-
 110 ment of the same member longitudinally of the position of the blade.

4. A holder for razor blades embodying in combination a clamping member coöperating with one of the converging faces of the blade and a clip pivoted thereon to move parallel therewith and engaging the
 115 opposite side of the blade near the end of the latter.

5. A holder for razor blades embodying in combination a clamping member having one face coöperating with one of the con-
 120 verging faces of the blade and a substantially U shaped clip pivoted thereon to engage its other face and the opposite side of the blade near the end of the latter.

6. A holder for perforated razor blades
 125 embodying in combination a clamping member coöperating with one side of the blade and provided with projections received within the perforations of the latter and a clip pivoted to the clamping member
 130

and engaging the opposite side of the blade near the end of the latter.

7. A holder for razor blades embodying in combination a pair of clamping members
5 coöperating with opposite sides of the blade and a clip pivoted to one of said members to engage the opposite side of the blade and a

finger piece on the clip projecting beyond the other clamping member.

MILES R. BUCK.
MARVIN L. TODD.

Witnesses:

RUSSELL B. GRIFFITH,
LUCY A. VAN COURT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
