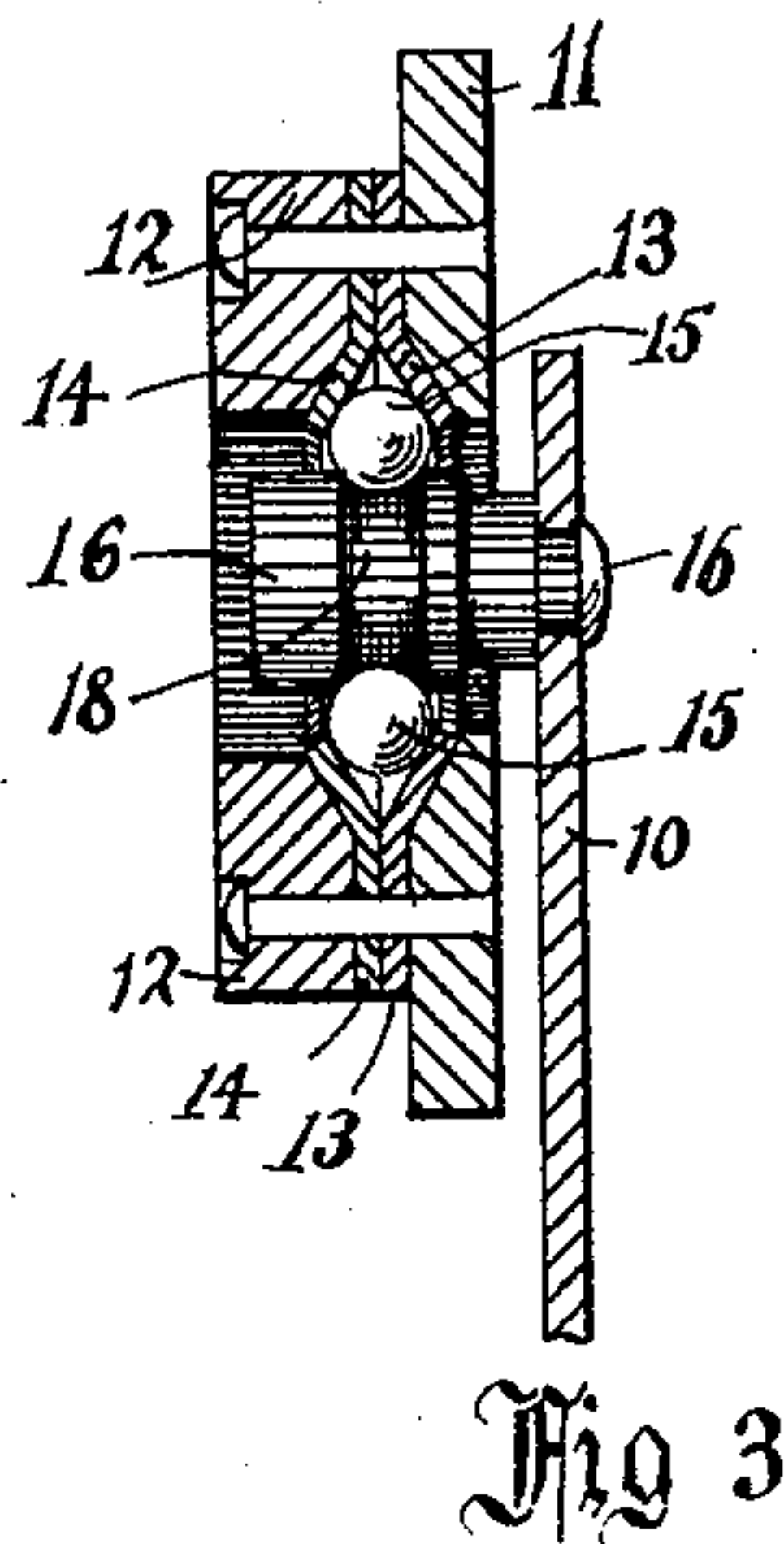
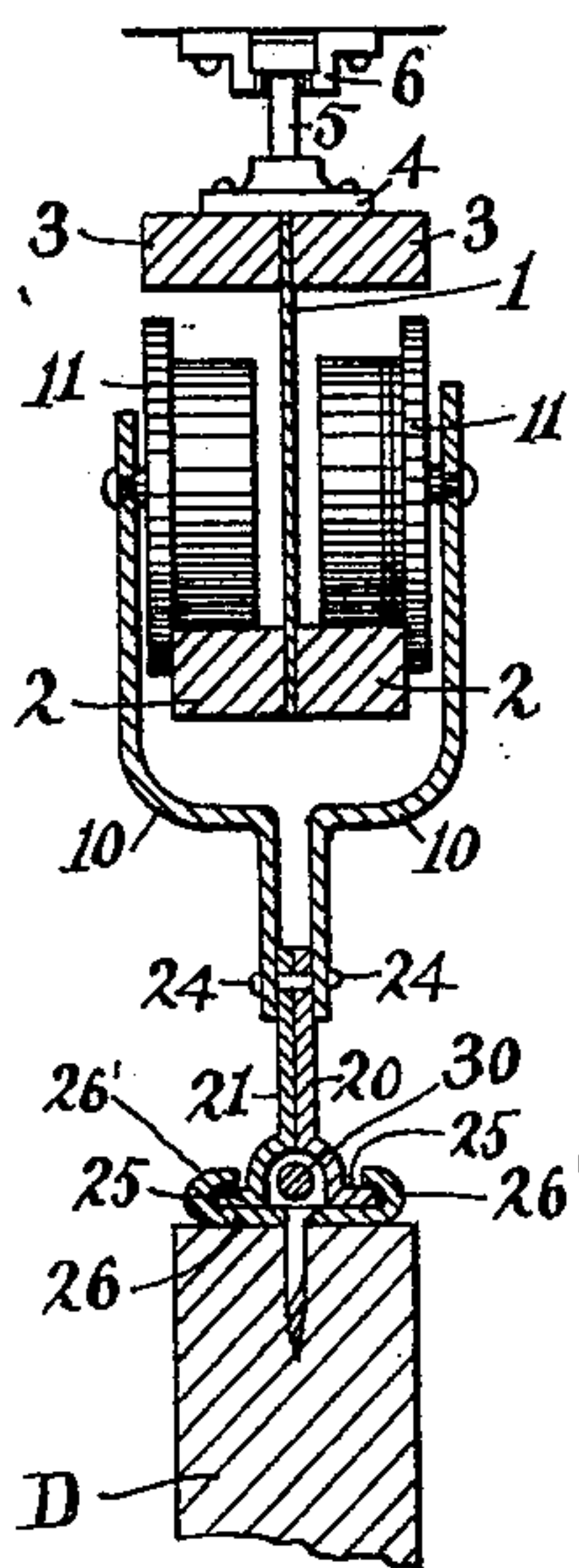
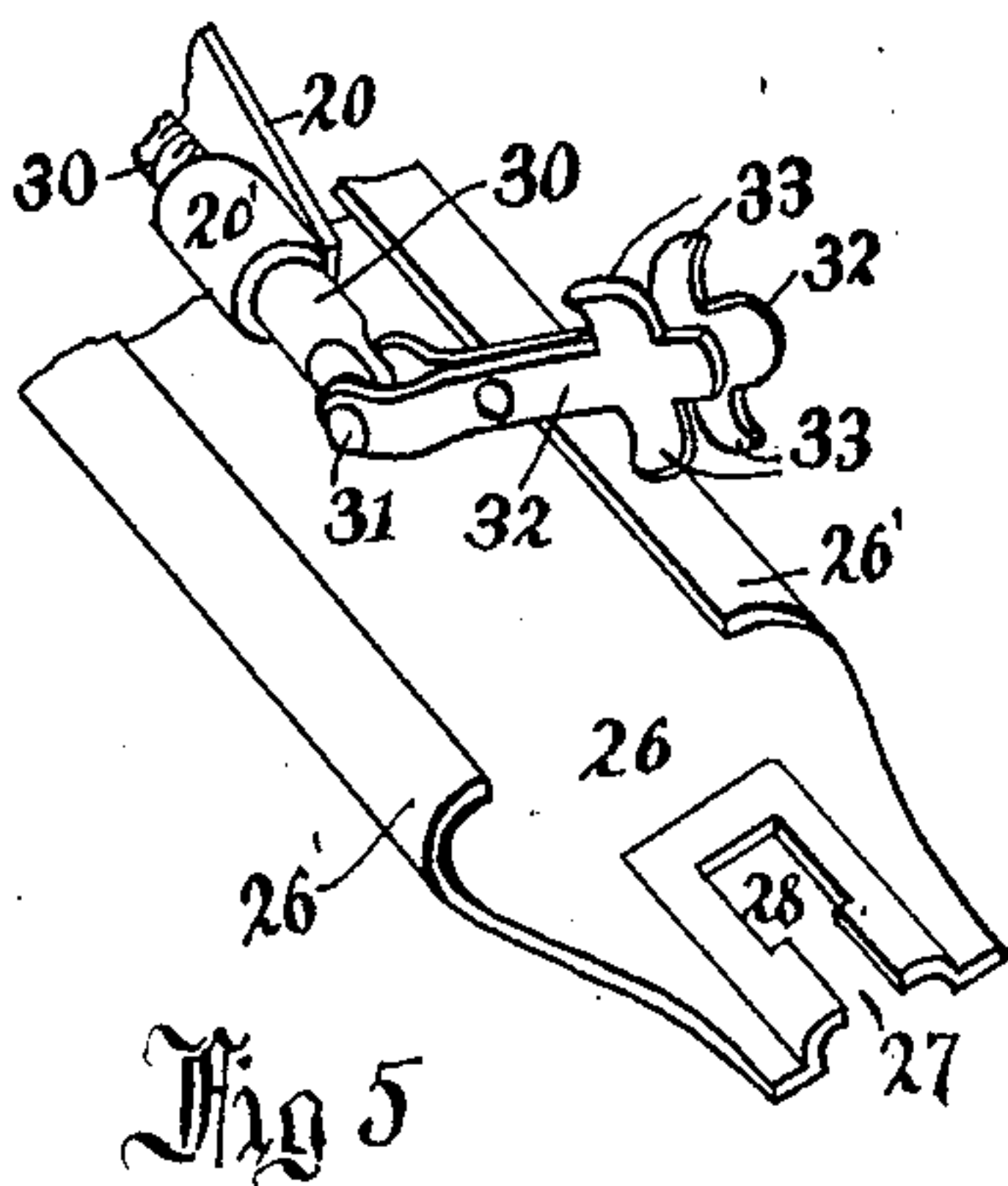
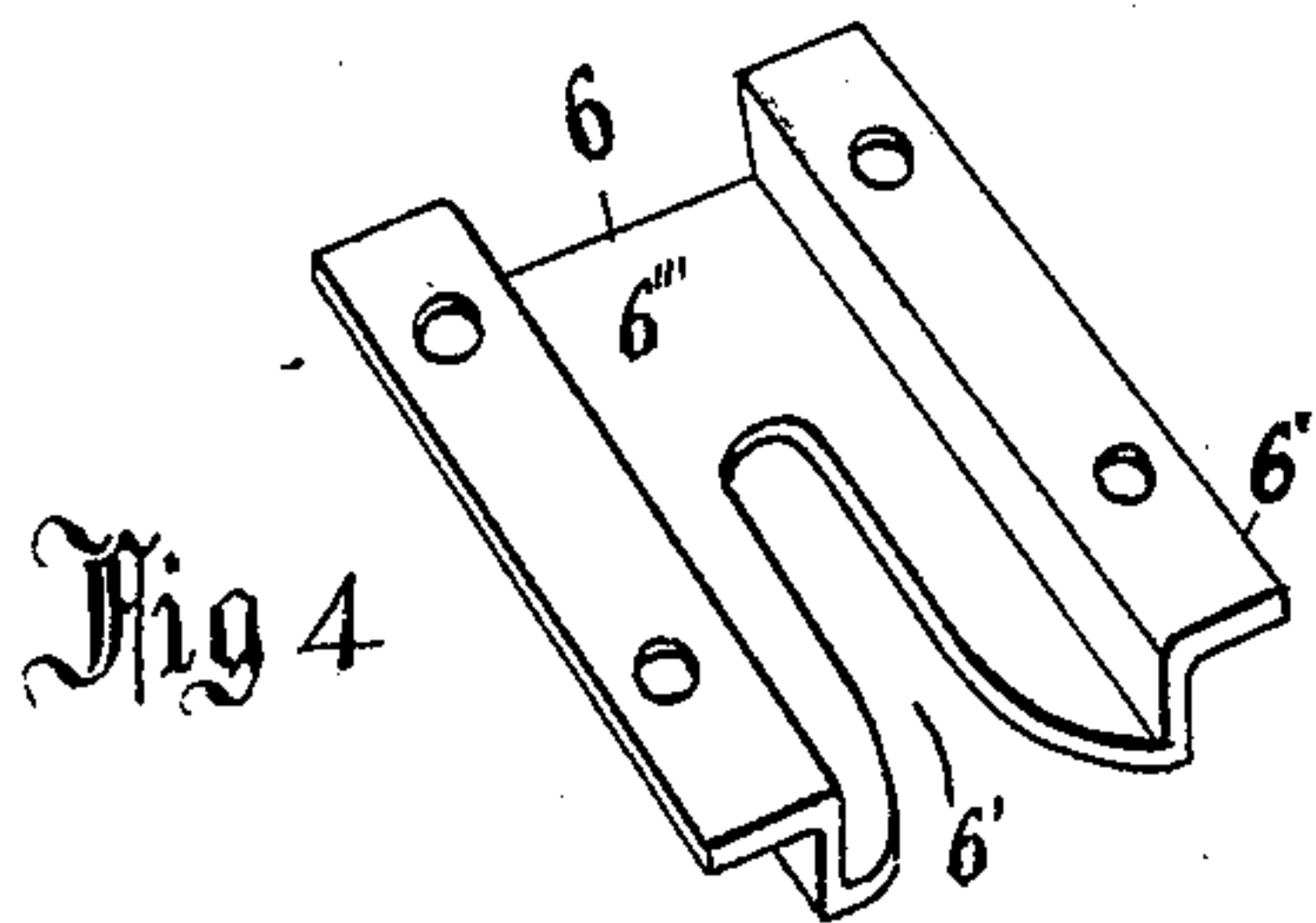
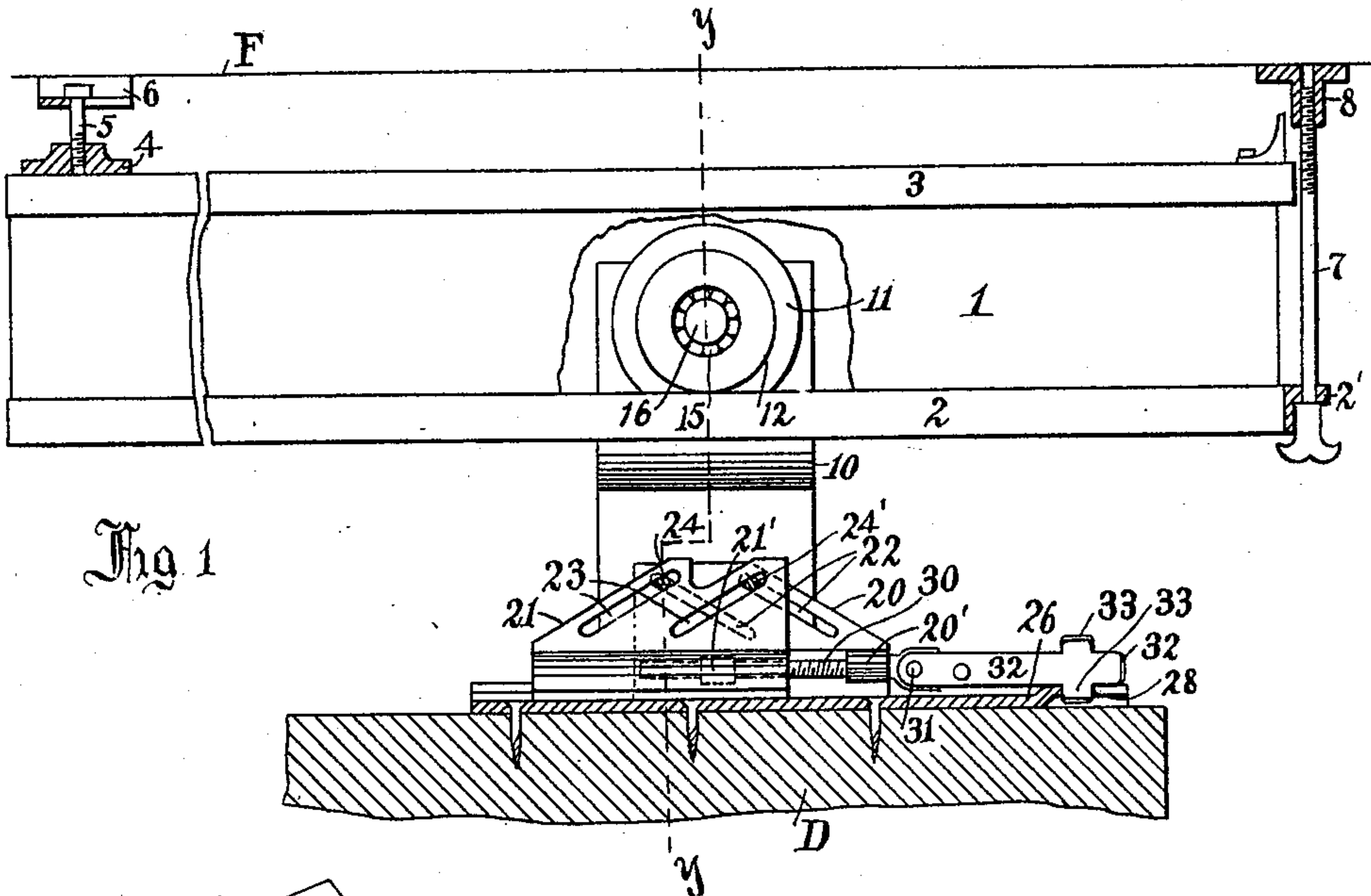


(No Model.)

T. C. PROUTY.
DOOR HANGER.

No. 587,492.

Patented Aug. 3, 1897.



WITNESSES:

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THEODORE C. PROUTY, OF MIDLAND, MICHIGAN, ASSIGNOR TO THE T. C. PROUTY COMPANY, OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 587,492, dated August 3, 1897.

Application filed March 11, 1896. Serial No. 582,707. (No model.)

To all whom it may concern:

Be it known that I, THEODORE C. PROUTY, a citizen of the United States, residing at Midland, in the county of Midland and State of Michigan, have invented certain new and useful Improvements in Door-Hangers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to door-hangers, and is an improvement on the class of hangers and tracks used in connection with sliding doors; and it consists in the track, hanger, method of adjustment, and in the construction, combination, and arrangement of the parts as described and shown.

Figure 1 is a side elevation of my invention. Fig. 2 is a vertical section on line Y Y of Fig. 1. Fig. 3 is a vertical section of the ball-bearing hanger-wheel. Fig. 4 is a perspective of the track supporting the plate 6. Fig. 5 is a perspective of the door attachment and adjusting-key.

In the drawings, 1 is a plate of metal forming the center of the track for the wheels, 2 2 being the track, and consists of two pieces of wood or other material securely fastened to the lower part of the plate 1.

3 3 are corresponding pieces fastened to the upper part of the plate. These pieces 3 3 are wider than the pieces 2 2 and serve in part to form a cover or hood for the hanger-wheel and track and are also for the purpose of giving more rigidity to the track.

At the end of the track is secured a plate 4, having a central screw-threaded hole adapted to receive the threaded bolt 5, having a headed end adapted to slide into the slot 6' in the supporting-plate 6, secured to the framework. This plate 6, as will be seen in Fig. 4, is of peculiar construction, having a central portion 6'', bent downward and provided with a slot 6', heretofore mentioned. This slot receives the head of the bolt 5 after the bolt has been adjusted to the proper length in the plate 4, and thereby supports an end of the track.

The other end of the track is provided with

a laterally-extending lug 2', receiving the threaded bolt 7, extending upward and adapted to engage the threaded hole of the plate 8, secured to the framework. It is obvious that by turning this threaded bolt 7 the track may be adjusted as desired.

The hanger-wheel is constructed as follows: Two disks 13 and 14 cut from the sheet metal and pressed outward at their centers and secured together, forming between them a cone-shaped bearing for the balls 15. To these disks are secured fibrous material 11 and 12, 11 forming the flange of the wheel. This material may be of rubber, canvas, wood, wood-pulp, or other fibrous material, the fibrous material 12 forming the tread of the wheel and is of the diameter of the disks 13 and 14.

16 is a journal of the wheel having a bearing in one arm of the U-shaped plate 10 and having within the wheel the concave cut-away portion 18, forming the track for the balls 15. As shown in Fig. 2, I employ two of these wheels in my device, one upon each side of the plate 1 and traveling on the tracks 2, which, as previously stated, are of wood, thereby forming, in connection with the fibrous material of the wheel, a noiseless track and tread for the hanger. These wheels are journaled, as previously mentioned, in each arm of the U-shaped plate 10, extending downward, the two arms riveted together underneath the track, thereby forming the U-shaped hanger-frame, and are movably secured to the adjusting-plates 20 and 21 by the connecting-bolts 24 and 24'. These plates 20 and 21 are made from sheet metal and have a foot pressed upon each adapted to enter and move along in the grooves 26', formed by turning over the edges of the plate 26, which is secured to the top of the door.

Just above the foot of each plate on the inside thereof is secured an eyelet 20' and 21', through which passes the threaded bolt 30. The eyelet 21' is threaded and adapted to engage the threads on the bolt 30. The upper portions of these plates are provided with two oblique slots 22 and 23, respectively, the slot in each plate extending directly opposite to the slots in the other plate, but are adapted to be connected by the bolts 24 and 24', which connect these adjusting-plates to the hanger 10—viz., the inner slot of the plate 20 is con-

nected by the bolt 24 to the outer slot of the
 plate 21 and the inner slot of the plate 21
 connected by the bolt 24' to the outer slot of
 the plate 20. These bolts 24 and 24' are
 5 smaller than the slots, so that the plates can
 be moved one upon the other, which I do by
 means of the bolt 30. To the end of the bolt
 30 I pivot what I term a "key" 32, and by
 means of this key I turn the bolt. It is ob-
 10 vious that by turning this bolt 30 the hanger
 may be adjusted as desired—viz., turning it
 in one direction raising the end of the door
 and in the other direction lowering the door.
 The key attachment 32 I provide and connect
 15 in order to make it easier and more conven-
 ient to adjust the mechanism instead of hav-
 ing to get a wrench or screw-driver for that
 purpose, but when the mechanism is once
 adjusted satisfactorily I lock the key attach-
 20 ment so that the mechanism cannot of itself
 become loose or out of adjustment. This
 key attachment is made of two pieces of
 metal secured together, one end secured to
 the threaded bolt 30 by the pivot 31, as de-
 25 scribed, the other ends being separate but
 adapted to be pressed together by the fingers
 and are provided with laterally-extending
 curved legs 33.

In the end of the door-plate 26 I provide
 30 means for receiving the ends of the key and
 holding it until removed by the hand. This
 means consists of a slot 27, having its inner
 end enlarged, as at 28, and into the slot 27 I
 insert the end of the key 32 by pressing the
 35 ends together and pushing the key along the
 slot until the enlarged portion 28 is reached.
 Releasing the ends allows the lugs 33 to en-
 gage the plate 26 underneath the slot and
 firmly hold the key therein, from which it
 40 can be extracted only by again pressing the
 ends together and pulling it out through the
 narrow portion 27.

As previously mentioned, the feet 25 of the
 plates 20 and 21 are so constructed as to be
 45 easily moved in the grooves 26' of the plate
 26. It is obvious that other means could be
 provided for locking the adjusting-key and
 therefore I do not desire to confine myself to
 the special means described.

50 The track 1 it will be observed is made
 from one continuous piece from end to end,
 so that one adjustment applies to the whole
 track instead of to parts of the track, as is
 common. The two rails on the track form-
 55 ing the runway for the wheels are provided
 with a short removable section at the end of
 the track over the door-opening, the ends of
 said section being cut diagonally and retained
 in place by two screws in the same manner as
 60 is now common in the application of double
 wood track.

I do not desire to confine myself to any par-
 ticular form of construction of the parts de-
 scribed, and therefore any change may be
 65 made that comes within ordinary mechanical
 skill without departing from the principle of
 my invention.

It may be further observed that all the parts
 hereinbefore described can be made, and I
 do make them, entirely from sheet metal of 70
 the proper thickness in order to be strong
 and durable.

The hanger 10 and adjustable plates 20 and
 21 and bed-piece 26, key 32, plate 6, and the
 disks and wheel I make entirely of sheet metal 75
 pressed and cut in the proper form. The only
 castings used are the plates 4 and 8 and the
 wheel-journal, which is of steel.

It will thus be seen that my entire door-
 hanger is easy of construction, light, strong, 80
 and durable.

Having thus described my invention, what
 I claim as new, and desire to secure by Letters
 Patent, is—

1. In a ball-bearing wheel for a door-hanger, 85
 the combination with two disks of sheet metal
 placed together and having their centers
 pressed outward, forming a cone-shaped bear-
 ing for the balls, and the balls running in the
 cone-shaped bearing and in a concave groove 90
 in the wheel-journal, and the wheel-journal
 held in the hanger-frame, of a broad ring of
 fibrous material secured upon one side of the
 wheel thus formed, and forming with the cir-
 cumference of the disk the tread of the wheel, 95
 of a larger and narrower ring of fibrous ma-
 terial secured to the opposite side of the wheel
 and forming the flange of the wheel, substan-
 tially as and for the purpose set forth.

2. In a door-hanger, the means of adjust- 100
 ment described comprising two adjusting-
 plates secured by bolts to the hanger-frame,
 the plates provided with oblique parallel slots,
 the slots in one plate extending in the oppo-
 site direction to the slots in the other, the bolts 105
 connecting the hanger-frame to the plates
 passing through a slot of each plate whereby
 as the plates are moved in opposite directions
 the said bolts will move up or down through
 the slots and thereby lower or raise the plates 110
 along the hanger-frame, substantially as
 specified.

3. In a door-hanger, the combination with
 two adjusting-plates adapted to engage and
 travel in grooves in a base-plate secured to 115
 the top of a door, and the base-plate, two
 oblique slots in each adjusting-plate, the slots
 in each plate parallel and extending in oppo-
 site directions to the slots in the other plate,
 and a bolt passing through the slots when se- 120
 cured to the hanger-frame, eyelets in the base
 of the adjusting-plates, one in each, one of
 the eyelets threaded, of a horizontal threaded
 bolt adapted to engage the eyelets in the base
 of the adjusting-plates and move them one 125
 upon the other as the bolt is turned, whereby
 the bolts connecting the adjusting-plates to
 the hanger-frame through the slots will move
 up or down the slots and thereby lower or
 raise the door to which the base-plate is se- 130
 cured, substantially as described.

4. In a door-hanger, the combination with
 a base-plate secured to the top of a door, two
 adjustable plates movably secured to a

hanger-frame and engaging and traveling in
the base-plate, of a threaded bolt engaging a
threaded eyelet secured to one of the plates
and passing through and carrying an eyelet
5 secured to another plate, whereby the plates
may be moved one upon the other and in the
base-plate by the turning of the threaded bolt,
a key for turning the bolt secured to the outer
end of the bolt, lugs on the end of the key and

a slot in the base-plate for receiving the lugs 10
when the hanger has been adjusted, thereby
locking the same, substantially as described.

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

THEODORE C. PROUTY.

Witnesses:

THOMAS J. SECOR,
WM. D. GORDON.