

No. 837,404.

PATENTED DEC. 4, 1906.

L. A. HINE.
SHOE HOLDER.
APPLICATION FILED JAN. 17, 1902.

Fig. 1.

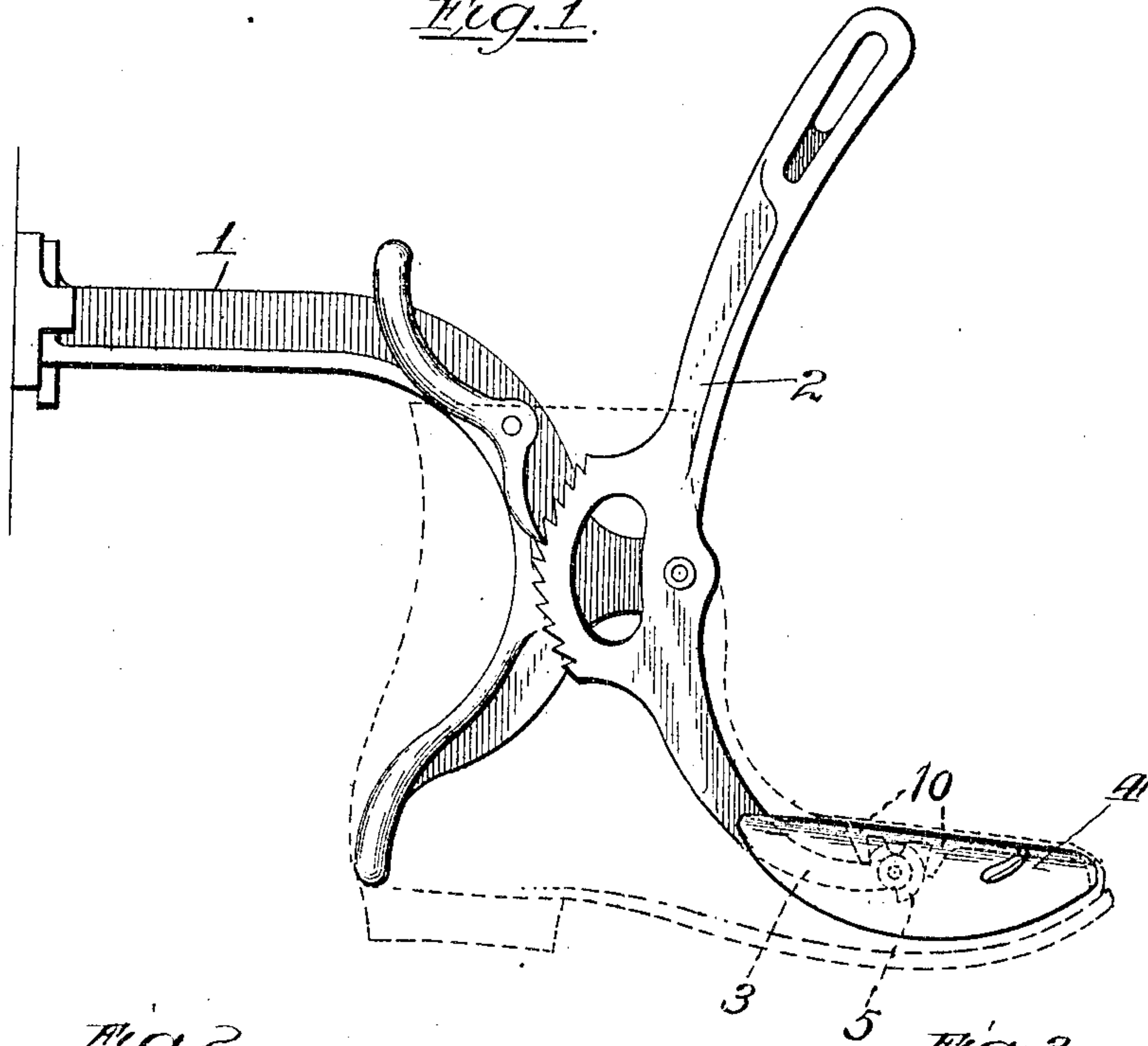


Fig. 2.

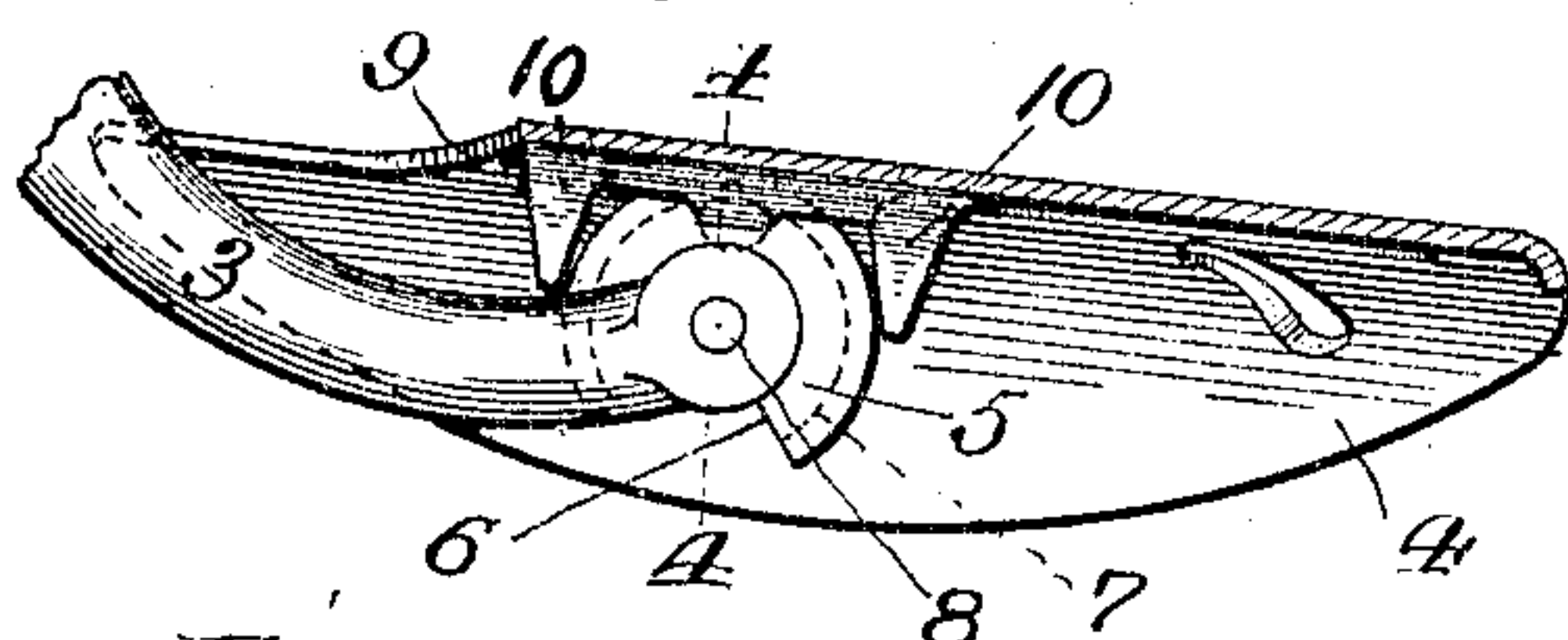


Fig. 3.

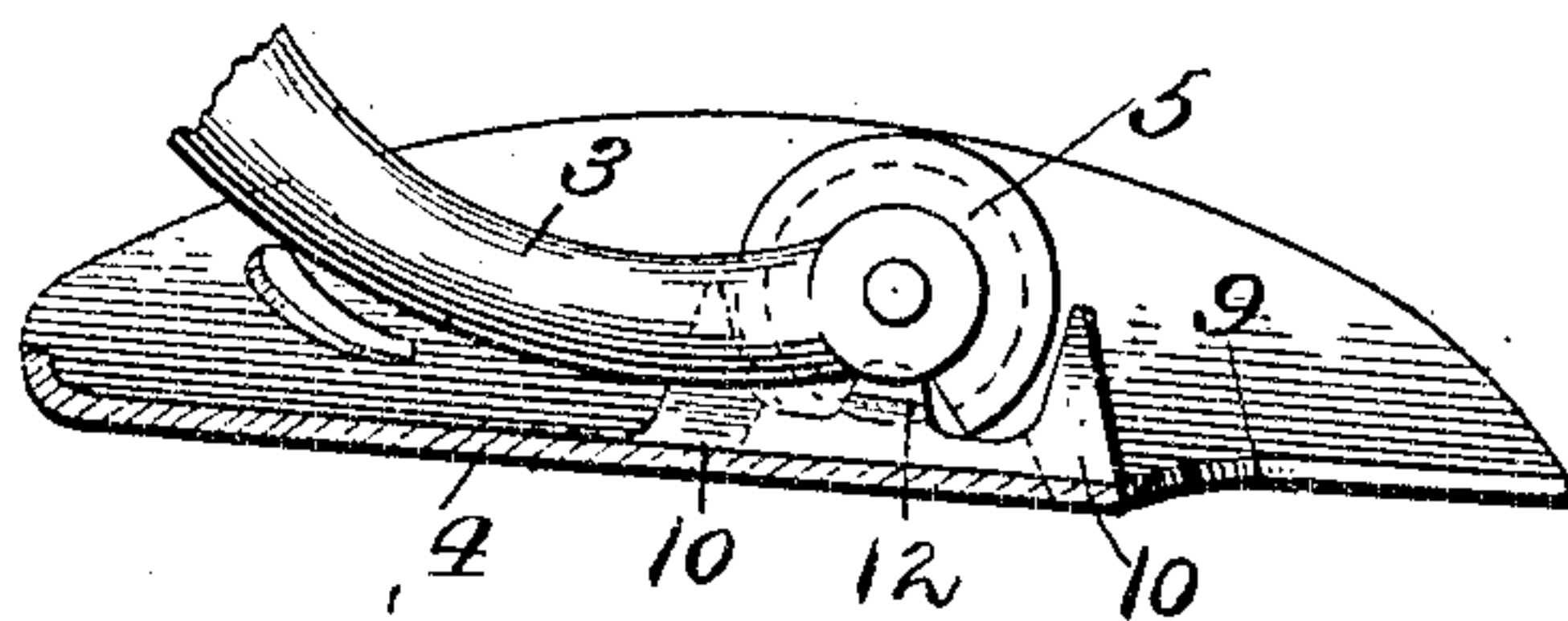


Fig. 4.

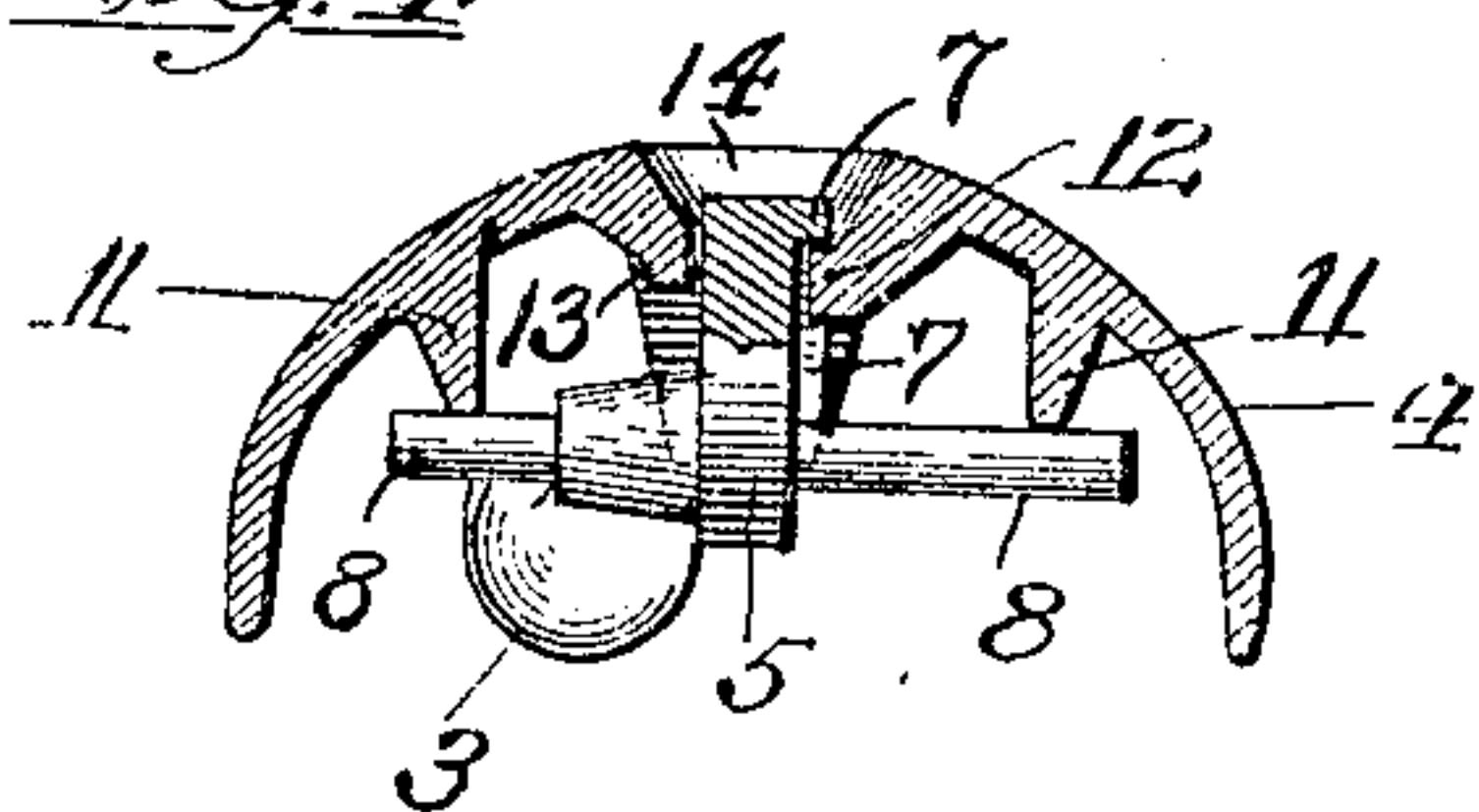


Fig. 5.

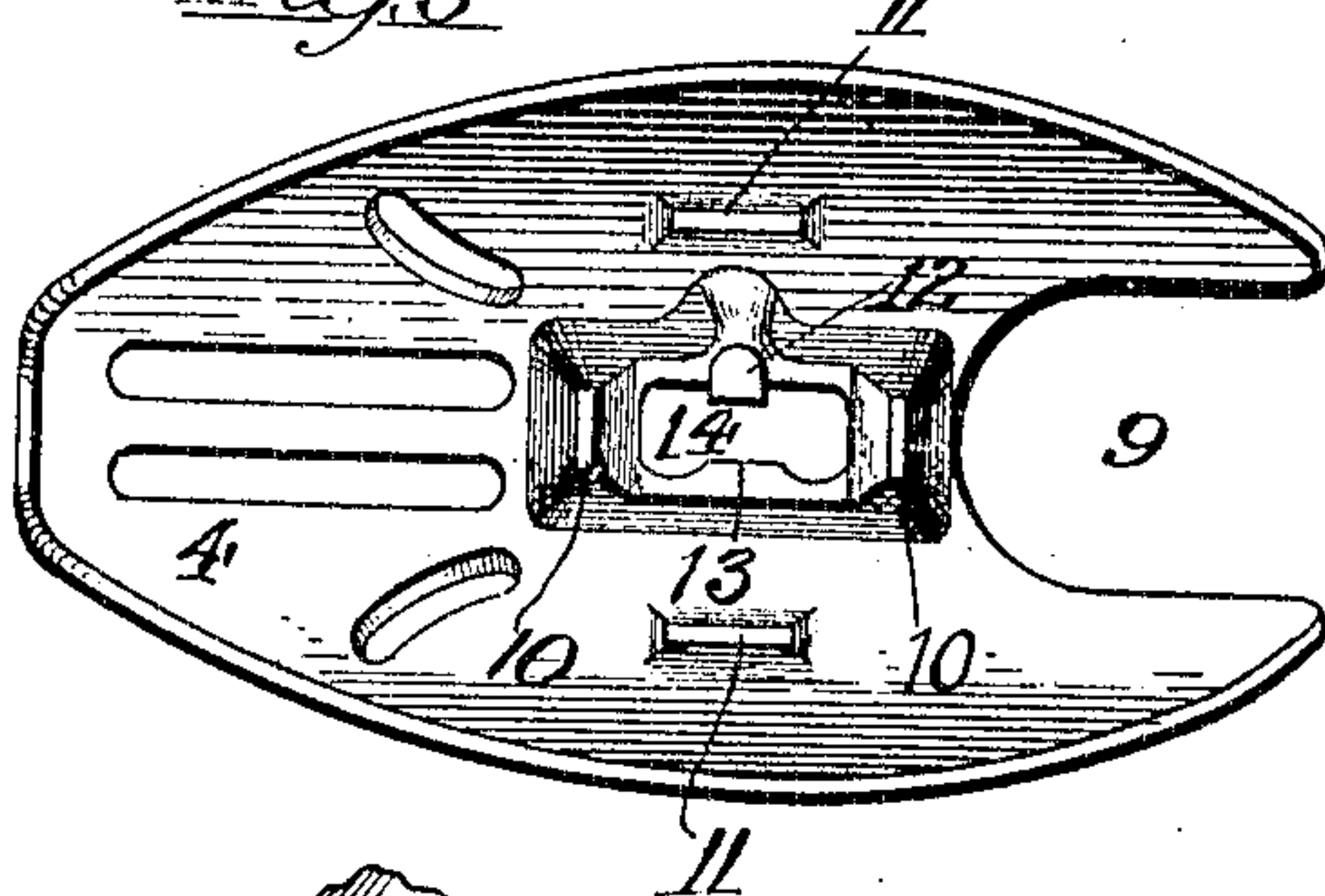
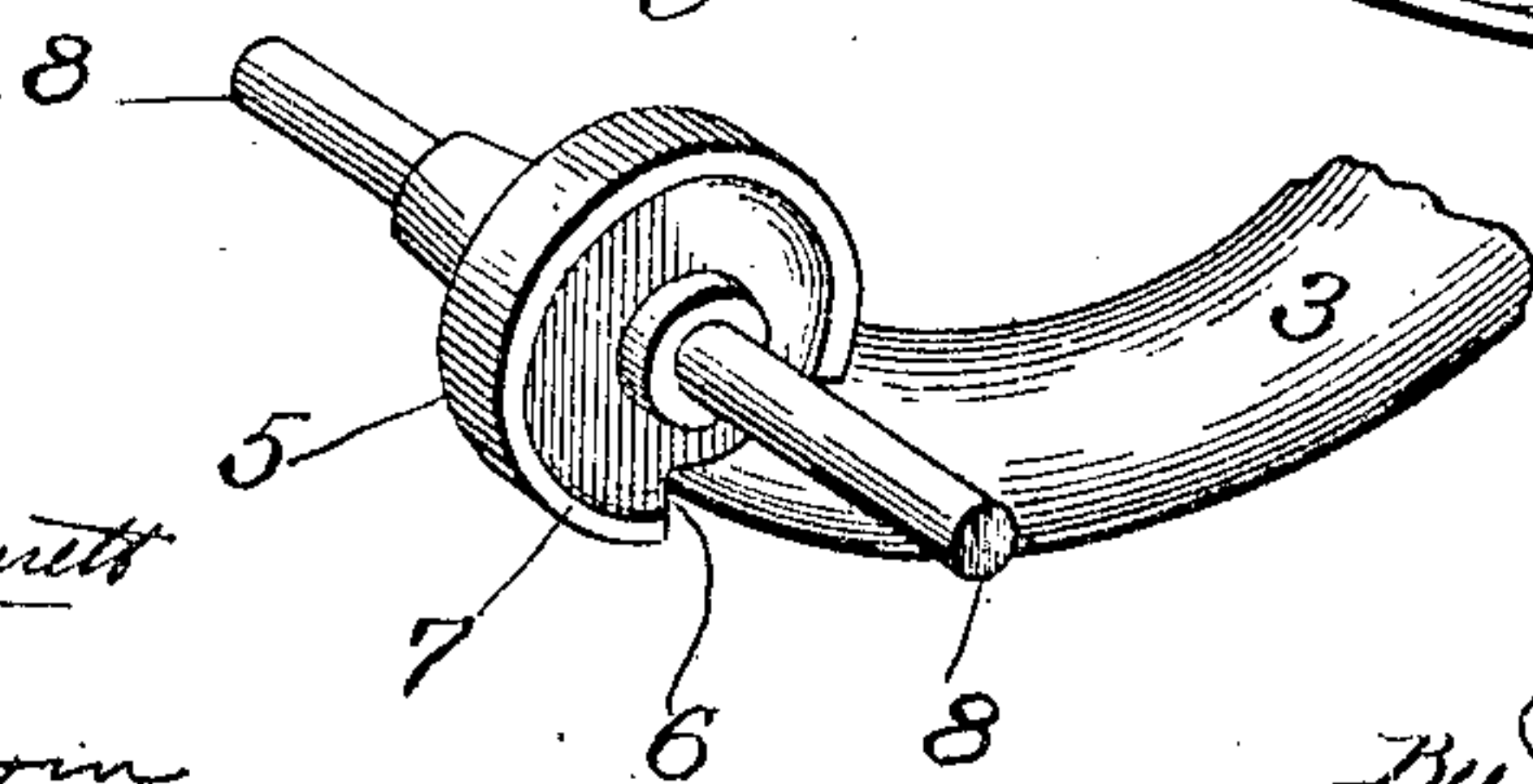


Fig. 6.



Witnesses

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SHOE-HOLDER.

No. 837,404.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LUCIUS A. HINE, resid-
ing at Chicago, Cook county, Illinois, have in-
vented certain new and useful Improvements
5 in Shoe-Holders, of which the following is a
specification.

My invention relates to shoe-holders gen-
erally, but has more particular relation to a
new and advantageous construction of a toe-
10 piece therefor, the object of my invention be-
ing to provide a simple and efficient toe-piece
capable of ready removal and of readily fit-
ting and adapting itself to right and left
shoes and also of imparting a uniform pres-
15 sure upon the entire toe and instep of the
shoe.

In the drawings, Figure 1 is a side eleva-
tion of a shoe-holder having my new toe-
piece thereon; Fig. 2, an elevation of the sup-
20 porting lever-arm and the toe-piece with one
side of the latter cut away; Fig. 3, a view simi-
lar to Fig. 2, but with the toe-piece upside
down and in position for removal; Fig. 4, a
sectional elevation on the line 4 of Fig. 2;
25 Fig. 5, a bottom plan of the toe-piece de-
tached, and Fig. 6 an elevation of the ex-
treme lower end of the supporting lever-arm.

The general construction of the shoe-
holder forms no part of my present inven-
30 tion, and consequently the same need not be
described, except to say that the stationary
frame or arm 1 is attached to a bracket on a
wall or support and that the movable arm
2 is pivoted to the stationary frame. The
35 lower and forwardly-extending end 3 of the
movable arm is adapted to carry or support
the toe-piece, which, of course, is designed to
enter and support and stretch the toe and in-
step of a shoe while being shined or polished.
40 The construction of the toe-piece 4, as well as
the construction of the extreme end of the
lever-arm which supports the toe-piece, is
such as to permit of the removal of the toe-
piece as well as its adjustment both rotarily
45 and in a vertical plane for purposes herein-
after made apparent. In the present in-
stance the end 3 of the lever-arm is extended
upward slightly and provided with a disk 5,
which is mutilated near its under side by hav-
50 ing the cut-away portion 6, Figs. 2 and 6.
This disk has on one side a marginal flange 7,
also broken or mutilated near the under side,
and has projecting from both sides and axi-

ally thereof the two spindles or trunnions 8.
The entire lever-arm 2, as well as its lower end 55
as thus described, can be conveniently cast in
one piece, although this is not essential.

The lower end of the arm 3 as just de-
scribed is adapted to coöperate with the toe-
piece 4, and to this end such toe-piece is of 60
concave form with a substantially elliptical
outline and with an end slot 9, through which
the arm 3 passes in certain positions of such
toe-piece. These toe-pieces may be of differ-
ent sizes to better accommodate men's, la- 65
dies' and children's shoes, and each toe-piece
is curved to correspond substantially to the
outline of the toe portion and instep of a
shoe. The central portion of the interior of
each toe-piece has a bearing comprising the 70
two depending lugs 10, arranged on a longi-
tudinal axis of the toe-piece and receiving
between them the disk 5 and also comprising
the two lugs 11, arranged substantially on
the transverse axis of the toe-piece and bear- 75
ing upon the spindles or trunnions 8, Fig. 4.
On the transverse axis of the toe-piece and
midway between the lugs 10 is arranged an
inwardly-projecting lug or pin 12, which is
adapted to engage behind the flange 7, 80
whereby the toe-piece will be held to the arm
3 against removal except when in a certain
position relative to the arm 3, it being herein
designed that the toe-piece is incapable of
removal except when swung to inoperative 85
position. By reason of the construction
shown the toe-piece is prevented from slip-
ping back and forth longitudinally with re-
spect to its supporting-arm and is also pre-
vented from slipping or rolling laterally, the 90
only movements possible being swinging in a
vertical plane with the trunnions 8 as the axis
and also rotating partially with the central
point of the toe-piece as the axis, as herein-
after more fully explained. 95

When the toe-piece is in operative position
on the shoe-holder device and ready to take
a shoe, its pin 12 engages behind the flange 7
of the disk, and while such toe-piece can be
readily moved or adjusted in a vertical plane 100
to accommodate itself to the shoe when the
lever 2 is being operated to tightly hold such
shoe such toe-piece is held to its supporting-
arm. The toe-piece is, in fact, incapable of
removal until it is swung so as to be upside 105
down, as shown in Fig. 3, in such position

that the pin 12 is brought to a point opposite the broken-away portion 6 of the disk, whereupon the toe-piece is free to be removed and another toe-piece of different size substituted, if desired. It will be understood that the lugs 11 bear on the spindles or trunnions 8, which consequently form pivot-points for the toe-piece. When it is desired to attach a toe-piece, it is first brought to the position shown in Fig. 3, and when turned over it is held attached by the pin 12 engaging the disk, as hereinbefore explained. As illustrated in Fig. 4, the end of the arm 3 is slightly crooked, so as to avoid one of the lugs 10.

The construction and arrangement just described not only provides for the movability of the toe-piece in a vertical plane, as above stated, but also for a partial rotary movement, so as to accommodate itself to right and left shoes. As is evident from the drawings, the lugs 10 do not restrict any rotary movement or adjustment of the toe-piece, and, in fact, the lugs 11 thereof are capable of a sliding movement on the spindles or trunnions 8. The detachability of the toe-piece permits of the substitution of different sizes thereof, so as to fit men's, ladies', or children's shoes, while the adjustment of the toe-piece on its arm or support permits of proper accommodation to right and left shoes and also of proper and uniform pressure over the entire toe and instep of the shoe. Moreover, the construction of toe-piece and its supporting-arm is simple and such that it is held to its arm when in operative position and is capable of removal only when swung to inoperative position.

All side slipping or rolling of the toe-piece, which movement would be objectionable, is prevented by the pin 12 on one side of the disk and by the projection 13 on the other side, Figs. 4 and 5, as well as by the bearing of lugs 11 on spindles 8. In actual practice a hole 14 through the center of the toe-piece is made in casting, into the lower portion of which hole the upper part of the disk projects; but such hole is not essential.

In order that the toe-piece may have freedom of movement to conform to the shape of the front portion or toe of every shoe, the construction and arrangement are such that the toe-piece is capable of a partial rotary motion in a horizontal plane—that is, on a vertical axis. The opening 14 in the toe-piece is sufficiently large with respect to the disk which projects slightly therein to allow proper amount of play so that the toe-piece may have the desired rotary motion above described. When the toe-piece is thus partially rotated in a horizontal plane, the lugs 11, which are flat—that is, unprovided with any bearing-recess—slide upon the pins or trunnions 8 of the disk, on which trunnions they also have a movement in a vertical plane and on a horizontal axis.

I claim—

1. In a shoe-holder, the combination, with a supporting member adapted to enter a shoe and terminating in a disk provided with trunnions, of a toe-piece having overhanging curved sides and arranged above and around the sides of the disk and also having depending lugs which are arranged to slide on the trunnions; substantially as described.

2. In a shoe-holder, the combination, with a supporting member terminating in a disk, of a toe-piece which is free to swing on such disk, and means on the disk and toe-piece cooperating only through a predetermined range of movement to hold the latter to the former and prevent its removal therefrom; substantially as described.

3. In a shoe-holder, the combination of a supporting-arm having stationary bearing members, a toe-piece having projections arranged to slide on said members, and means for normally holding the toe-piece on the arm and preventing side rolling; substantially as described.

4. In a shoe-holder, the combination of a supporting-arm having spindles or trunnions, a toe-piece having depending lugs normally bearing on said trunnions but arranged to slide thereon and means for normally holding the toe-piece on its arm; substantially as described.

5. In a shoe-holder, the combination of a supporting-arm having a flanged disk at its end and also trunnions, a toe-piece having lugs bearing on said trunnions and means of engagement between the disk and the toe-piece, substantially as described.

6. In a shoe-holder, the combination of a supporting-arm having a flanged disk at its end and also trunnions, a toe-piece having lugs bearing on said trunnions and means of engagement between the disk and the toe-piece comprising a pin or projection arranged on the toe-piece and engaging behind the flange of the disk to prevent removal of the toe-piece but permit of its independent movement thereon; substantially as described.

7. In a shoe-holder the combination of a supporting-arm having a flanged disk at its end and also trunnions, a toe-piece having a pair of lugs arranged adjacent the edge of the disk at opposite sides and having a second pair of lugs bearing on the trunnions and a pin or lug engaging behind the flange of the disk; substantially as described.

8. In a shoe-holder, the combination of a supporting-arm having a flanged disk cut away on one side and also having trunnions, a toe-piece movable on said trunnions and having a pin or lug engaging behind the flange to hold the toe-piece to the disk except when the cut-away portion thereof is presented to the pin; substantially as described.

9. In a shoe-holder, the combination of a supporting-arm having a flanged disk and

also having trunnions, a toe-piece movable on said trunnions and having a pair of lugs arranged on its longitudinal axis and adjacent to the edge of said disk on opposite sides thereof and a pin or lug arranged on the axis of said toe-piece and adapted to engage said disk; substantially as described.

10. In a shoe-holder, the combination of a supporting-arm having trunnions, a toe-piece capable of a partial movement on a vertical axis and having depending lugs loosely bearing upon said trunnions and capable of a sliding movement with respect thereto when the toe-piece moves on its vertical axis and means of engagement between the toe-piece and arm; substantially as described.

11. In a shoe-holder, the combination of a supporting-arm having a flanged disk and also having trunnions, a toe-piece having depending lugs loosely bearing upon said trunnions and capable of a sliding movement thereon, said lugs being arranged on the transverse axis of the toe-piece and a pin or lug on the toe-piece and arranged on the same axis to project toward and engage the flange of the disk; substantially as described.

12. The combination of the arm 3 having a disk 5, having a cut-away portion 6 and a flange 7, trunnions 8 on either side of the disk, a toe-piece 4 having the pair of depending lugs 10 on opposite sides of the disk and a second pair of lugs 11 adapted to bear on the trunnions and a pin or lug 12 arranged on the toe-piece and engaging the disk; substantially as described.

13. In a shoe-holder, the combination of a supporting-arm having a disk at its end disposed in a vertical plane, and a toe-piece having a substantially central longitudinal slot or opening which receives said disk and which has lateral play with respect thereto, said toe-piece being arranged to move on said disk in a vertical plane on a horizontal axis and in a horizontal plane on a vertical axis; substantially as described.

14. In a shoe-holder, the combination of a supporting-arm having a flanged disk at its end, a toe-piece arranged to have a revolving movement about the axis of said disk and provided with a pair of retaining-lugs arranged to move in a path concentric to the axis of the disk and coöperating with the flange thereupon to prevent disengagement of the toe-piece and disk, and means for operatively holding the toe-piece to the disk throughout a predetermined range of its movement; substantially as described.

15. In a shoe-holder, the combination of a supporting-arm having a flanged disk at its end, a toe-piece having a pair of retainer-lugs at opposite sides of the disk, and a pin or lug located on the toe-piece and adapted to engage the disk behind the flange, substantially as described.

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Witnesses:

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