No. 612,428. Patented Oct. 18, 1898.

O. J. MASON.

CRUTCH TIP.

(Application filed Dec. 30, 1897.)

(No Model.)

Fig. 1

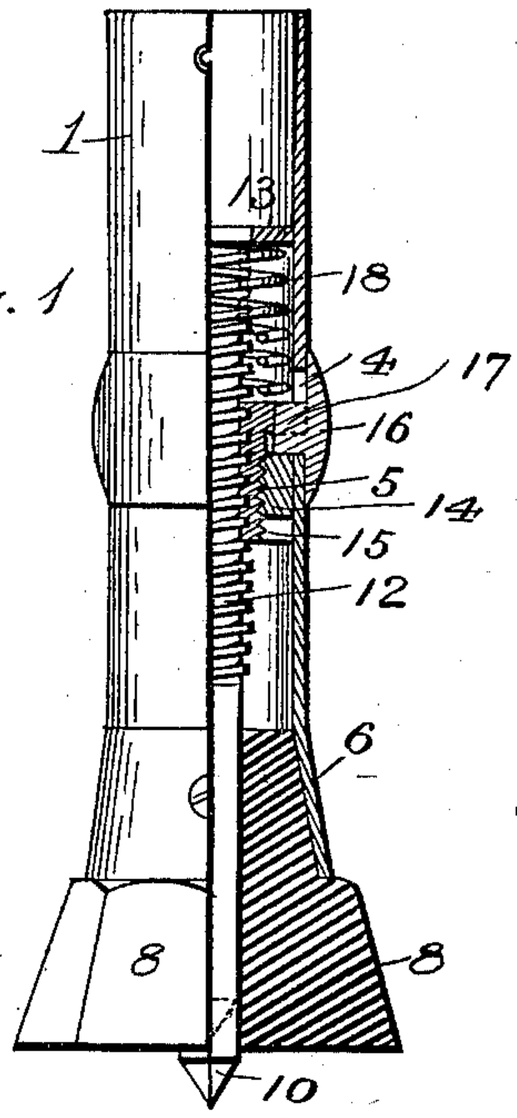
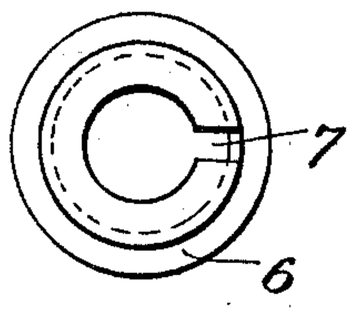


Fig. 5.



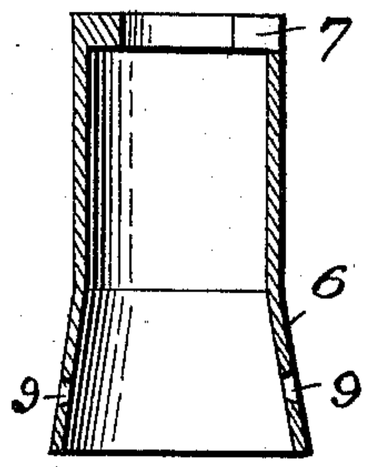


Fig. 3

Fig. 2

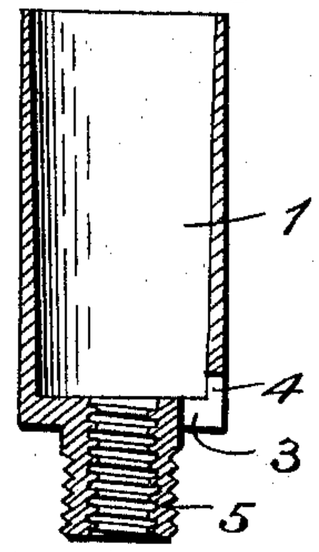


Fig. 4

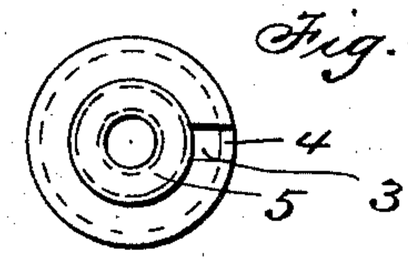


Fig. 9

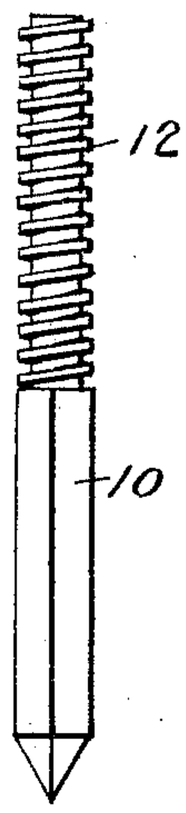
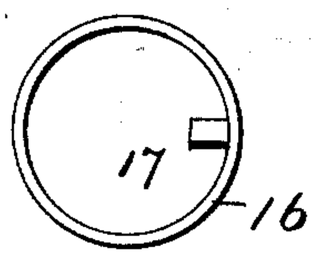


Fig. 7.



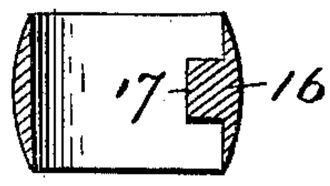


Fig. 8.

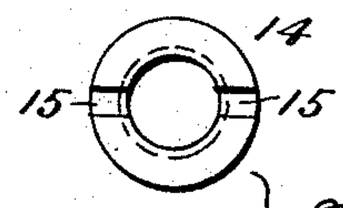
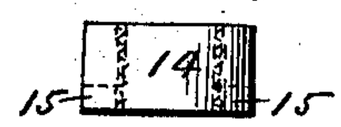


Fig. 6



Witnesses:
Franck L. Durand
Jos. L. Coombs

Inventor,
Otis J. Mason
by Lowe Dagger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

OTIS J. MASON, OF LORAIN, OHIO, ASSIGNOR TO ELLIS A. AULT, OF SAME PLACE.

CRUTCH-TIP.

SPECIFICATION forming part of Letters Patent No. 612,428, dated October 18, 1898.

Application filed December 30, 1897. Serial No. 664,515. (No model.)

To all whom it may concern:

Be it known that I, OTIS J. MASON, a citizen of the United States, and a resident of Lorain, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Tips for Crutches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to that class or description of tips for crutches which are provided with the usual rubber or other elastic block at the lower end for preventing slipping when in use and which are provided with a vertically-movable metal spike or prod adapted to pass centrally through said block and project below the lower side thereof, so that the crutch can be used upon slippery sidewalks or other places without danger or liability of slipping.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of a crutch-tip constructed in accordance with my invention. Fig. 2 is a detail sectional view of the upper or inner socket or section. Fig. 3 is a similar view of the lower or outer socket or section. Fig. 4 is a bottom view of the upper socket. Fig. 5 is a plan view of the lower socket. Fig. 6 is a bottom view of the collar. Fig. 7 is a plan view of the sleeve. Fig. 8 is a longitudinal section of the same. Fig. 9 is an elevation of the spike or prod.

In the said drawings the reference-numeral 1 designates a metallic socket adapted to fit on the lower end of a crutch, the bottom of which is formed with a slot 3 and an intersecting slot 4. Formed integral with said socket is an interiorly and exteriorly threaded boss 5.

The numeral 6 designates the lower socket, the upper end of which is formed with a slot 7. This socket at the lower end is made flaring, and fitting therein is a rubber or other elastic block 8, held in place by screws (not shown) passing through holes 9. Said block is formed with a central angular opening, through which passes a corresponding or angular spike or prod 10, the upper end of which is formed with threads 12. This spike passes through the boss 5 and also through a ring 13 in the interior of the socket 1.

The numeral 14 designates a collar having notches 15 on the under side to receive a tool for turning the same and fits on the boss and holds the socket 6 against the lower end of socket 1, but not so tightly as to prevent rotation of the same.

The numeral 16 designates a rotatable sleeve embracing the meeting ends of said sockets and is provided with an interior rib 17, which engages with the slots in the sockets. This sleeve is also capable of a limited vertical movement and is pressed down into engagement with the slot in the lower socket by a coiled spring 18, interposed between said rib and the ring 13.

The operation is as follows: When it is desired to use the crutch with the rubber block as the bearing, the lower end of the spike is above the lower end of the block, as seen by the dotted lines, Fig. 1, and the rib of the sleeve engaging with the slot in the upper end of the socket 6 the latter is prevented from rotating. When it is desired to use the spike, the sleeve is moved upward, so as to disengage the rib from the slot in the lower socket, when the latter can be turned or rotated, and by means of the angular form of the spike and the angular opening in the block the spike will also be rotated. This rotation of the spike through its threaded engagement with the boss will be forced outward, as seen in full lines, Fig. 1. Owing to the pitch given to the threads of the spike, a single revolution of the socket will generally cause the spike to be projected a sufficient distance from the block, when the coiled spring will force the rib of the sleeve into engagement with the slot in the lower socket and lock the same against rotation.

If the spike does not project far enough,

another or more turns may be given to the sleeve. A reverse operation will cause the spike to be retracted.

Having thus fully described my invention, what I claim is—

1. In a tip for crutches, the combination with the upper socket having a slot at the bottom, and provided with an interiorly and exteriorly threaded boss, of the lower rotatable socket having a slot at the upper end, the elastic block fitting in said lower socket formed with a central angular opening, the angular spike passing therethrough formed with screw-threads at the upper end, the collar engaging with said boss and the vertically-movable and rotatable sleeve having a rib engaging with said slot, substantially as described.

2. In a tip for crutches, the combination with the upper section having a slot in the lower end, the interiorly and exteriorly threaded boss, and the ring located in said socket, of the lower socket having a slot in the upper end, the collar fitting on said boss, the elastic block fitting in said lower socket having a central angular opening, the angular spike, screw-threaded at the upper end, the rotatable and vertically-movable sleeve formed with a rib, and the coiled spring, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

OTIS J. MASON.

Witnesses:
GEORGE E. HALL,
JACOB S. KLEIN.