No. 835,108. PATENTED NOV. 6, 1906.

P. S. HOVIS.

CRUTCH.

APPLICATION FILED JAN. 22, 1906.

Fig. 1.

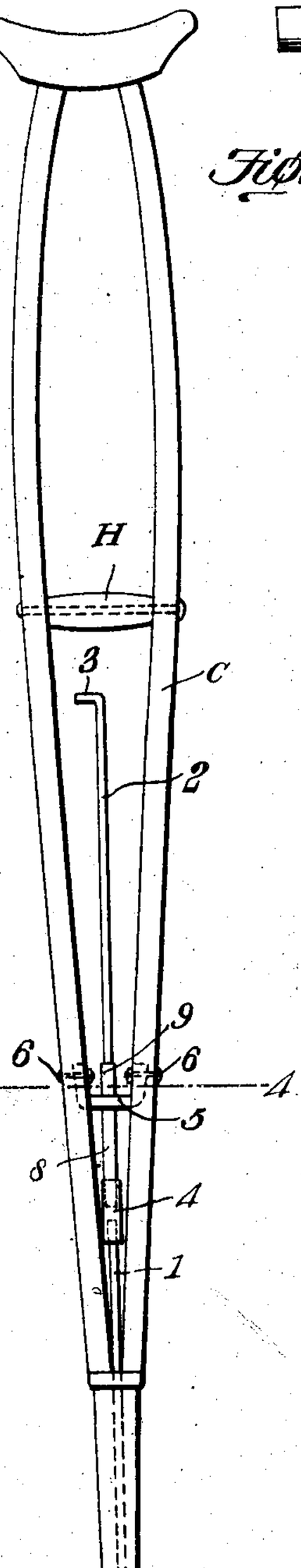


Fig. 2.

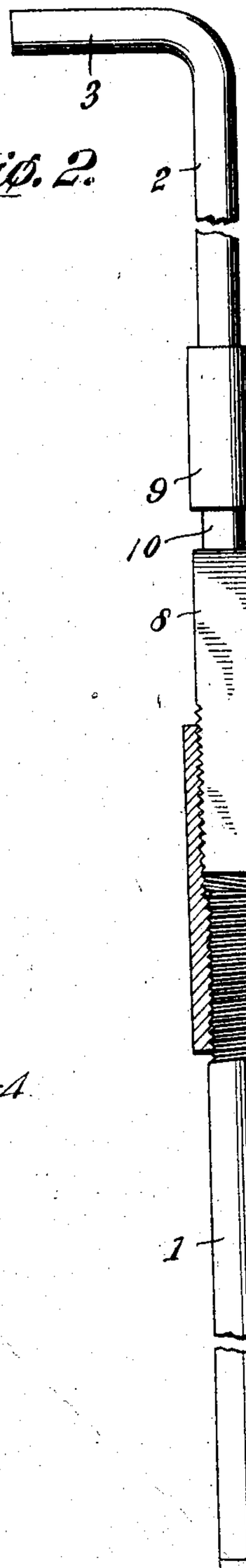


Fig. 3.

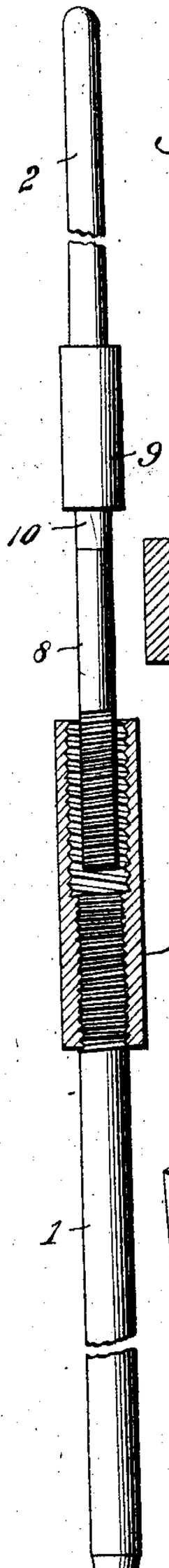


Fig. 4.

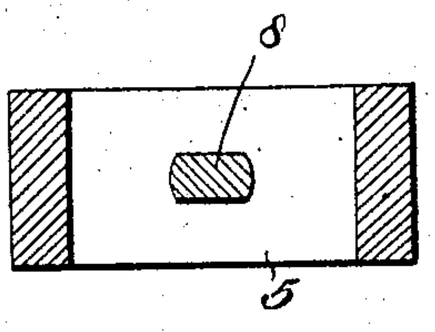
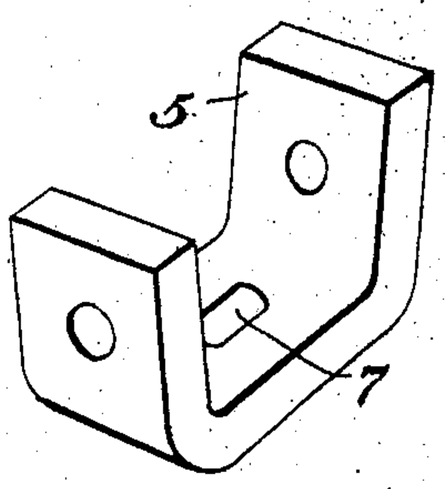


Fig. 5.



WITNESSES:

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PARK S. HOVIS, OF BUTLER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN A. RICHEY, OF BUTLER, PENNSYLVANIA.

CRUTCH.

No. 835,108. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed January 22, 1906. Serial No. 297,342.

To all whom it may concern:

Be it known that I, PARK S. HOVIS, a citizen of the United States, residing at Butler, in the county of Butler and State of Pennsylvania, have invented a new and useful Crutch, of which the following is a specification.

This invention relates generally to crutches, and more particularly to one of that class having combined with it a prod or spur that is adapted to be projected beyond the tip of the crutch to provide a safeguard against slippage.

The object of the present invention is to simplify the construction of the spur attachment, to increase its efficiency, and to obviate the necessity of the employment of springs or other mechanisms for projecting the prod or for retracting it within the confines of the tip.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a non-slipping attachment for crutches, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in elevation of a crutch equipped with the improvements of the present invention. Fig. 2 is a view in side elevation, partly in section, showing the normal position of the parts of the spur attachment. Fig. 3 is a similar view showing the position of the parts when they are shifted either to throw the spur without the tip or to withdraw it within the tip. Fig. 4 is a horizontal sectional view taken on the line 4 4, Fig. 1. Fig. 5 is a perspective detail view of a part of the attachment.

Referring to the drawings, C designates the crutch, H the handhold thereof, and T the usual rubber tip, and as these parts may be of the ordinary construction further description thereof is deemed unnecessary.

The invention resides in the novel form of non-slipping attachment for the crutch, and this consists of a pointed spur member 1, a stem 2, provided with a handle 3, and a coupling 4, uniting the spur member with the stem. The spur member is seated in a bore formed in the lower portion of the crutch, while the handle 3 is disposed adjacent to the handhold H. The handle is normally in the position shown in Fig. 1—that is, it lies within the plane of the sides of the crutch-bars, and thus does not present an obstruction, the same being true whether the spur be projected or retracted.

The coupling 4 is counterbored, the bore in the upper end being the larger and is engaged by the lower end of the stem, which, as shown in Fig. 4, is approximately rectangular in cross-section. The stem projects through a locking member 5, which is approximately yoke-shaped and is secured to the crutch-bars by bolts or screws 6, as shown in Fig. 1. The side members of the lock are seated in depressions in the opposed faces of the crutch-bars; but this is not essential, as they may lie flat against these bars and still be within the scope of the invention.

The locking member 5 is provided with an approximately rectangular orifice 7, that extends longitudinally of the base of the member and is of a length to receive the flattened portion 8 of the stem, thereby to permit the spur member to be projected or retracted, as may be found necessary or desirable.

As will be observed by reference to Figs. 2 and 3, the lower end of the stem carries a head 9, that is circular in cross-section and is of greater diameter than the orifice 7 in the locking member, so that the attachment as a whole will be prevented from dropping or passing through the locking member 5. In order to permit of the stem being turned through one-quarter of a circle, thus to bring the flattened portion 8 in position to move in the orifice 7, the said portion adjacent to its point of juncture with the head 9 is circumferentially reduced at 10 to form a neck that will easily turn in the orifice.

As will be readily understood by reference to Fig. 4, the spur member is first introduced through the lower end of the crutch and engages with the coupling. The lower portion of the stem is then passed through the orifice in the locking member, and the latter is secured in position by the bolts or rivets 6, after which the stem is turned to cause its lower threaded end to engage with the coupling. By the provision of the coupling the spur member may be adjusted to compensate for any wear whereby the life of the article is measurably increased.

When the spur member is not in use, it is drawn up into the bore in the lower portion of the crutch, and when it is to be used the handle is given a quarter-turn to bring the flat portion 8 to register with the orifice in the locking member. The stem is then pushed down to project the spur member and is then again turned to secure the neck in the orifice and to hold the spur against any movement.

The improvements herein defined while simple in character will be found thoroughly effective for the purposes designed and may be applied to an ordinary crutch without any change in its structural arrangement other than the provision of a bore to receive the spur member and of the seats and orifices to receive the locking member and bolts for holding it in position.

It will be noted that there is no mechanical means provided for holding the spur member in its retracted position, and this is not necessary, as the frictional contact between the spur and the walls of the orifice of the tip will operate positively to hold the spur out of engagement with the ground when its use is not desired.

I claim—

A crutch having a locking member attached to the crutch-bars, said member having an elongated orifice, a stem having a flattened section which is adapted to slide through the said orifice but which is held against rotation therein, said stem having at the upper end of said flattened section a cylindrical section which is adapted to enter said orifice and rotate therein, and a spur member attached to said stem.

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

PARK S. HOVIS.

Witnesses:

J. W. HUTCHISON,

CHAS. H. MILLER.