No. 869,682. PATENTED OCT. 29, 1907.

W. AUTENRIETH.

CANE.

APPLICATION FILED JULY 13, 1907.

Fig. 1.

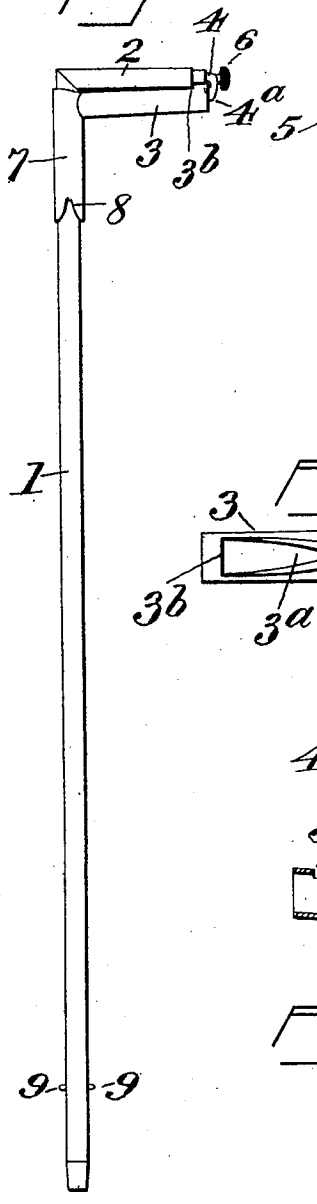


Fig. 3.

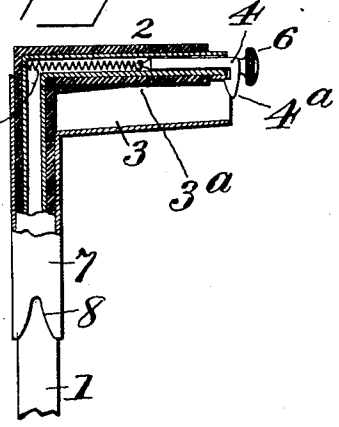


Fig. 2.

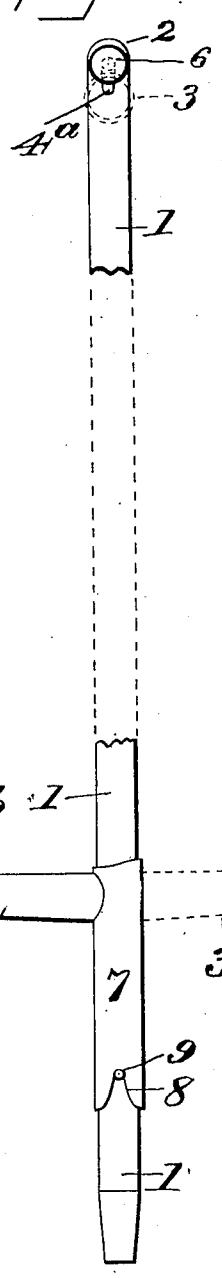
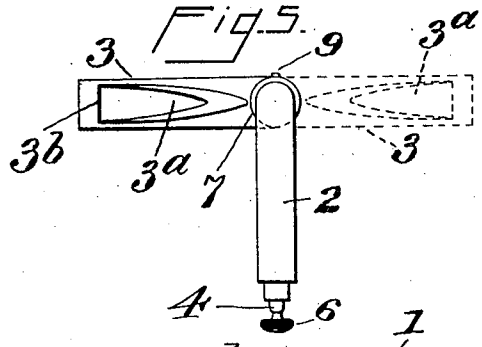


Fig. 5.



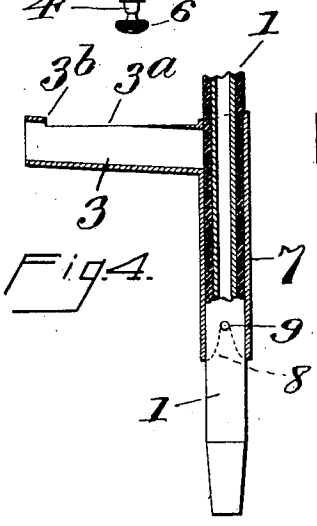


Fig. 4.

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CANE.

No. 869,682. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed July 13, 1907. Serial No. 383,654.

To all whom it may concern:

Be it known that I, WILLIAM AUTENRIETH, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Canes, of which the following is a specification.

This invention relates to improvements in walking-canes and its object is to provide a convertible walking-cane having a suitable handle with a sliding lateral arm or drop-step attachment, means for conveniently securing such latter-named attachment to the handle and adapted for ready release when required, and means at the lower end of the cane for supporting the said drop-step attachment in position for use.

A further object of this invention is to provide the horizontal portion or step proper of said attachment with an elongated opening, the edges of such opening being somewhat beveled or sharpened so that the foot of the user may be prevented from slipping on the step and at the same time providing a scraper for any mud collected on the bottom of the shoe that might in any manner hamper the use of the cane.

Other incidental and minor features of the invention will be fully hereinafter described and, also, duly referred to in the claims.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is an elevation of the cane in its normal state for walking use; Fig. 2, an elevation, on a scale somewhat larger than that of Fig. 1, but with its intermediate portion broken away (for lack of space,) and showing the cane at a right-angle to the position seen in Fig. 1, with the drop-step in place at its lower end in position for use; Fig. 3, a fragmentary sectional elevation of the upper end of the walking-cane seen in Fig. 1, but on the same scale as that of Fig. 2, and showing the latch device for securing the drop-step in normal position contiguous to the handle; Fig. 4, a fragmentary sectional elevation of the lower end of the walking-cane seen in Fig. 2, with the drop-step in using position thereon; and Fig. 5, a plan view of Fig. 2, the drop-step being shown in solid lines in the position it occupies when the right foot and the right hand are to be used on the cane, and the dotted-lines showing the position of the drop-step when the device is to be used by the left hand and foot.

In these views, 1 indicates the barrel or body portion of the cane, commonly called the stick; 2, the handle portion disposed, as customary, at a right-angle to said stick at its upper end; and 3 a lateral arm forming a drop-step detachably secured in its normal position contiguous to the handle by means of a latch 4.

The stick 1 may be made of one solid piece of material, or of a thin metallic rod or tube surrounded by a tube of rubber or other suitable material, strength and symmetry being both duly considered as well as cost, in the construction thereof. The handle 2 is hollow and has a spiral spring 5 inclosed therein, one end of such spring being rigidly caught in such handle and the other end of such spring being connected to the inner end of the latch-bar 4. 6 is a pull-button on the outer end of the latch-bar 4. 4^a is a pendent hook formation at said outer end of the latch-bar adjacent the pull-button 6, the purpose of which will be presently described. The drop-step 3 is made hollow and preferably with an elongated opening 3^a in its upper portion and has a vertical tubular portion 7 extending downward from its inner end and sliding over the stick 1. Notches 8, 8 are made in the lower end of the vertical portion 7 of the drop-step, such notches engaging the stops 9, 9 at the lower end of the stick 1, when the drop-step is in lowered position for use and preventing the turning of the step on the stick when in such use. The walls of the elongated opening 3^a of the step 3 are preferably beveled to an edge, as best seen in Figs. 4 and 5, whereby the foot of the user may secure a better grip thereon and to prevent his slipping thereover, such beveled edge also forming a scraper for removing the mud or dirt from the bottom of the shoe and such dirt being readily emptied through the outer open end of the step.

In the use of the device, the step 3 is normally upheld in contact with the handle 2 by means of the hook portion 4^a of the latch 4, such latch being held in locked position by means of the closing-tension of the spring 5 thereon. The latch is readily released by drawing outward on the pull-button 6 against the tension of the spring 5, at which time the step drops by gravity and its notches 8 engage the stops 9 at the lower end of the stick. If the user employs his right hand on the handle, the step must be in the position shown in solid lines in Figs. 2, 4 and 5 and, if the cane is to be used with the left hand, the step should be drawn slightly upward from contact with the stops 9 and swung half-way round on the stick so as to assume the position seen in dotted-lines in Figs. 2 and 5. When the step is not to be used, it is drawn upward along the stick and brought parallel to the handle 2, its outer end, which is open, engaging the hooked outer end 4^a of the latch-bar, the latter acting automatically by means of the spring 5 to lock the step in its raised or normal position.

In making the elongated opening 3^a along the upper face of the step 3, a file or other suitable tool is used to remove the metal, and, in beveling such metal along the walls of said opening, a shoulder 3^b is left near the outer end of the step and serves the purpose of a stop to prevent lateral movement or slipping of the foot sidewise from the step.

The device is intended for use as a walking-stick, the step 3 under the handle not being uncomfortable to the hand in gripping same and, also, for use in stepping

from the street or elsewhere into cars or other vehicles, or to elevated positions that would otherwise be very inconvenient and a hardship to the user. The step 3 can be instantly dropped to using position and conveniently raised along the stick to normal position under the handle, as desired.

I claim:—

1. A convertible walking-cane comprising a stick or body portion, a hollow lateral handle at the upper end thereof, a spring latch device with an outer hooked end in the hollow of said handle, a lateral arm or drop-step having a vertical, pendent inner end sliding over said stick and engaging said latch device when in normal position, and a stop or detent at the lower end of said stick for supporting said lateral arm or drop-step when dropped downward along said stick into using position as a step.

2. A convertible walking-cane comprising a stick or body portion having a lateral handle at its upper end and a stop or detent at its lower end, a latch device in said handle and a lateral arm or drop-step having a pendent inner portion sliding over said stick, notches in the lower end of said pendent portion of the lateral arm and an elongated opening with a shouldered outer end construction in said lateral arm or drop-step.

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