(No Model.)

O. C. PUGH.

CANE.

No. 490,722. Patented Jan. 31, 1893.

Fig. 1.

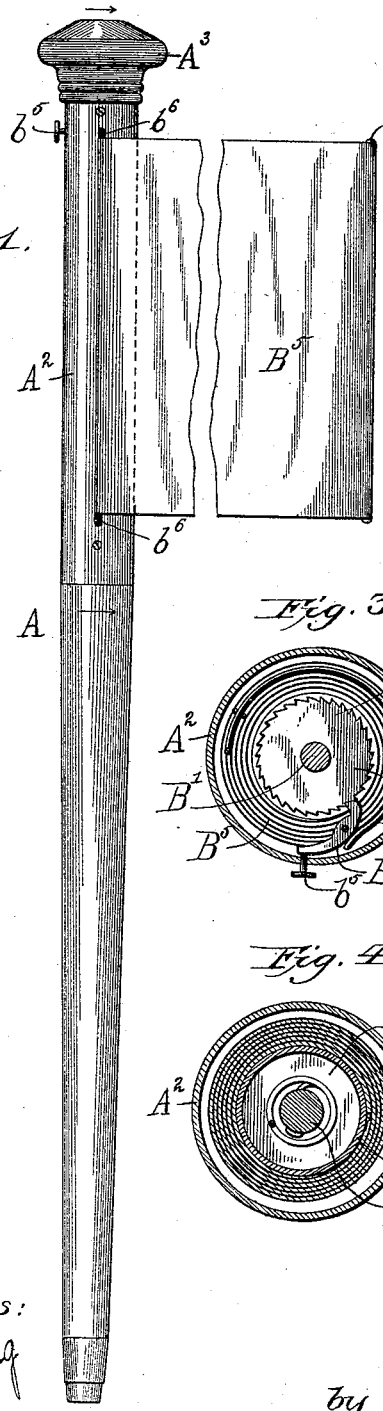


Fig. 2.

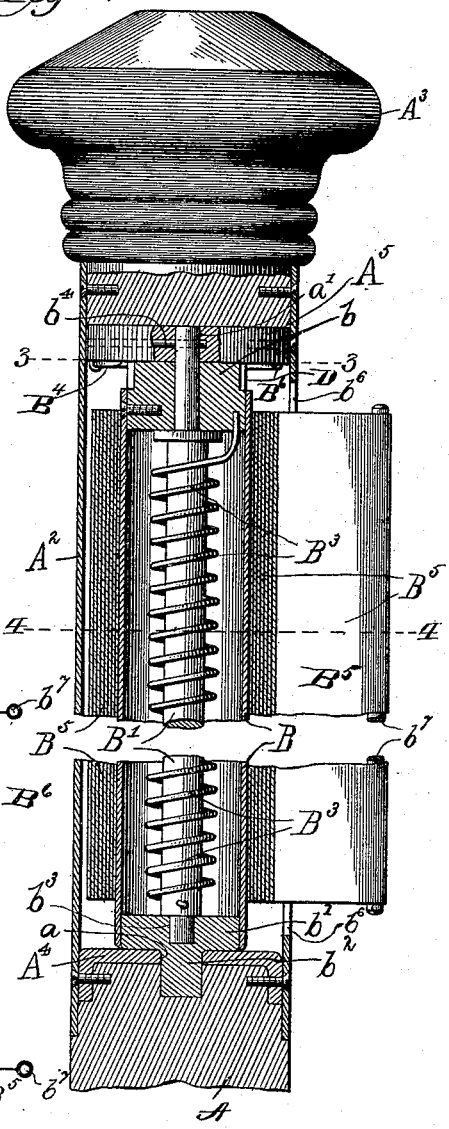


Fig. 3.

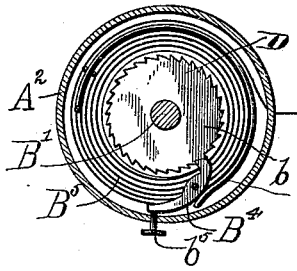
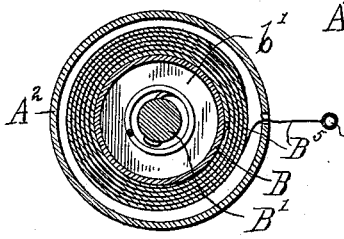


Fig. 4.



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UNITED STATES PATENT OFFICE.

OLIVER C. PUGH, OF CHICAGO, ILLINOIS.

CANE.

SPECIFICATION forming part of Letters Patent No. 490,722, dated January 31, 1893.

Application filed July 28, 1892. Serial No. 441,489. (No model.)

To all whom it may concern:

Be it known that I, OLIVER C. PUGH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Canes and Similar Articles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to canes or walking-sticks, to umbrella-sticks, and also to various other kinds of staffs, and the objects of my invention are to provide attachments for such sticks or staffs which shall adapt them for use as receptacles for flags, guide-maps, and various other articles of display or reference, and which shall be very compact, so as to involve no material alteration in the external appearance of the sticks or staffs. Furthermore, to produce attachments which, in addition to the advantages above enumerated, shall be simple, strong, durable, and inexpensive in construction and capable of easy manipulation by the user.

To the above purposes, my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will describe it with reference to the accompanying drawings, in which:

Figure 1 is a side elevation of a walking-stick or cane embodying my invention. Fig. 2 is an enlarged view, partly in side elevation and partly in axial longitudinal section, of the upper part of said walking-stick or cane. Fig. 3 is a cross-sectional view of the same, taken on the plane indicated by the line 3—3 of Fig. 2. Fig. 4 is also a cross-sectional view, of the cane, taken on the plane indicated by the line 4—4 of Fig. 2.

In the said drawings, A designates the body-portion, or stick or staff of the cane, this body-portion being either of wood or any other suitable material and being also of any desired length; the body-portion being shown as of tapered cylindrical form, but being permissibly of any external contour desired.

A^3 designates the head of the cane, this head being shown as in the form of a knob, but being permissibly of any of the well-known forms of cane-heads.

A^2 designates a tubular section or casing which is interposed between the upper end of the body-portion or staff A and the head A^3 and which serves to connect the head to the staff. This tubular section or casing may be either of wood or metal, or of any other suitable or preferred material, and may also be of any desired length. As shown, the casing A^2 is of cylindrical form to accord with the cylindrical form of the body-portion or staff A, but it is to be understood that this casing A^3 may be varied greatly in its general form without departing from the essential spirit of the inventor; it being preferable that the casing should accord closely, in its general external contour, with the staff or body-portion A, so that there shall be no material difference, in general appearance, of the cane from canes as usually constructed. At one side, the tubular casing A^2 is formed with an elongated longitudinal opening or slot b^6, for a purpose soon to be explained, and the upper end of the body-portion or staff A is shown as slightly reduced in diameter so as to fit closely within the lower end of the casing A^2. A metal cap A^4 is shown as placed upon the reduced upper end of the staff or body-portion A, so as to embrace the same, and suitable rivets or screws are inserted radially through the lower end of the casing A^2, and likewise through the margins of the cap b, and also into the end of the staff A, so as to securely connect the parts together. The lower end of the head A^3 is also inserted tightly into the upper end of the casing A^2; suitable screws or rivets being inserted radially through the upper end of said casing and into the lower end of the head, so as to likewise securely connect the parts together.

Within the tubular casing is placed a hollow revoluble barrel B which extends longitudinally of the casing, centrally of the same. Into the lower end of this barrel is tightly inserted a plug b', preferably of wood, the lower or outer side of which is formed with a central downward extension b^2 which passes loosely through the center of the cap A^4 and also loosely into a socket a formed centrally in the upper end of the staff A; the arrangement being such that the plug may freely

turn axially and thus permit the barrel to likewise freely turn.

Into the upper end of the barrel B is tightly inserted a plug *b*, also preferably of wood; a suitable number of radial screws a^7 being preferably passed through the upper end of the barrel and into the plug *b* so as to prevent turning of the plug within the barrel. At its upper end, the plug *b* is formed or provided with ratchet-teeth D which are engaged by a pawl B^4 pivoted about midway of its length to the lower end of the head A^3, and having its tip pressed inward, into engagement with the ratchet-teeth, by a spring B^6; one end of this spring being secured to the lower end of the head A^3, and the opposite end of said spring pressing upon the tip of the pawl. The opposite end of the pawl B^4 carries a push-pin b^5 which projects outwardly from the pawl and works freely through the upper end of the casing A^2, for a purpose soon to be explained.

Centrally through the barrel B extends a non-revoluble rod B′ the lower end of which is loosely stepped into a socket formed in the center of the plug *b*′, so that said plug can turn freely around this end of the rod. The upper end of the rod passes freely through the center of the plug *b*, so that said plug can turn upon the rod, and enter the lower end of the head A^3, wherein it is held against rotation by a cross-pin *b* which is inserted radially into the lower end of the handle A^3 and transversely through the upper end of the rod. A spiral spring B^3 is coiled around the rod B′ and is located wholly within the barrel B; this spring extending from one end of the rod to the other, and having its lower end attached to the rod. The upper end of this spring is secured eccentrically to the plug *b*. A flexible strip B^5, of the paper, cloth, or any other flexible material is secured at its inner end longitudinally upon the barrel B and extends through the opening or slot b^6 in the casing A^2. A suitable rod b^7 is shown as secured transversely to the outer end of the strip B^5; this rod being of greater thickness or greater length than the opening or slot b^6, and thus preventing the outer extremity of the strip B^5 from being drawn wholly within the casing A^2. The flexible strip B^5 may bear the representation of a flag, banner, or streamer, or it may bear a guide-map, or descriptive matter serving as a guide or to impart advertising or other matter of information, of various kinds. Furthermore, the body-portion A may be an umbrella-stick, or a staff of any kind, without departing from the essential spirit of my invention.

The action of the coiled spring B^3 is to uncoil and thus revolve the barrel B in such manner as to wind the flexible strip B^5 around the barrel, so that said strip shall be practically wholly concealed within the cane or staff. When the flexible strip B^5 is to be exposed, for display or for reference, its outer end is grasped by the user and the strip is drawn outward. This movement of the strip unwinds it from the barrel B and revolves the barrel in such direction as to coil up the spring B^3. During this drawing out of the strip, the pawl B^4 rides freely over the ratchet-teeth D, and finally engages one of said teeth so as to retain the strip in its extended position.

When it is desired to wind the strip within the cane, inward pressure is applied to the push-pin b^5, and the tip of the pawl B^4 is lifted out of engagement with the ratchet-teeth D; the spring B^3 now being free to uncoil, and winding in the strip B^5 radially.

It is to be distinctly understood that by locating the spring B^3 and rod B′ within the barrel B, the device, as a whole, is rendered sufficiently compact to form a part of a cane or an umbrella-stick, or a staff, without material alteration of the general appearance of the cane-stick, or staff, or any clumsiness, or any undesirable increase in the length or size of such article.

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

A stick or staff, comprising a body-portion and a head and also a tubular portion interposed longitudinally between the body-portion and the head, a non-revoluble rod located centrally within the tubular portion and having one end fixed in the head, a hollow revoluble barrel surrounding the rod and located wholly within the tubular portion, a coiled spring surrounding the rod and also located wholly within the tubular portion and connected at one end to the rod, a short plug inserted into one end of the barrel and having an outward extension working freely in the end of the body-portion, a second short plug inserted into the opposite end of the barrel and carrying ratchet-teeth, the opposite end of the coiled spring being connected to said plug, a pivoted spring-pressed pawl carried by the head and engaging the ratchet-teeth, and also located within the tubular portion, a push-pin carried by the pawl and protruding through the tubular portion, and a flexible strip secured at one end to the barrel and extending through a slot in the tubular portion, substantially as set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

OLIVER C. PUGH.

Witnesses:
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