

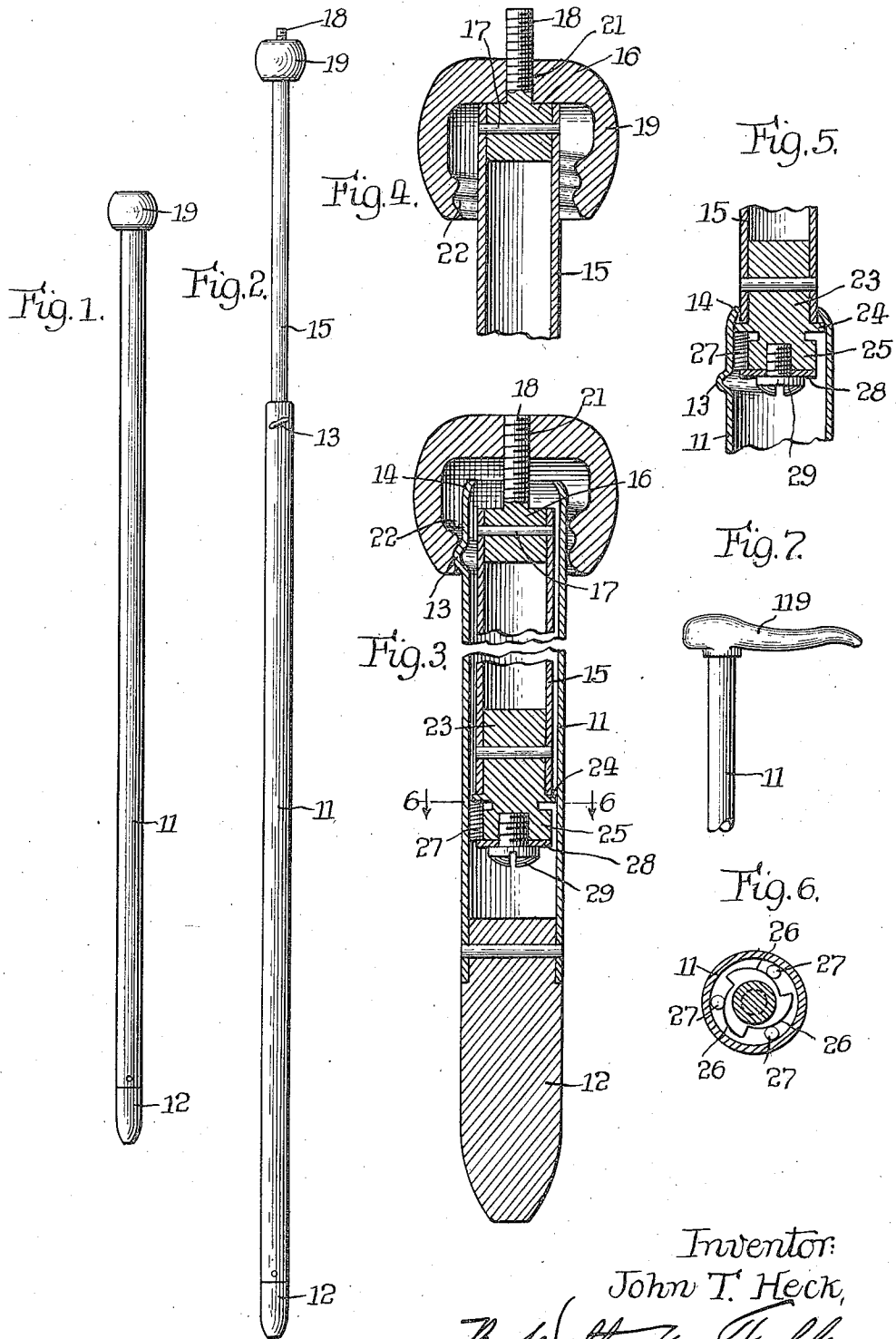
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CAMERA SUPPORT

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CAMERA SUPPORT

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The present invention relates to standards, supports, or rests for cameras or the like during the taking of their pictures, whereby, due to the steadiness and stability which such member af-
fords for the camera, better photographic results are easily attainable.

Tripods, of course, have been known for many years and comprise satisfactory means for supporting cameras during exposure of their light-sensitive plates or films, but such tripods are of more or less complicated structure and are clumsy and unwieldy to carry around during their periods of non-use.

One of the leading objects and prime purposes of the instant invention is to provide a camera-supporting structure of extremely simple construction and which occupies but small space when not in use.

A further aim of the invention is to supply a standard of this type which can be readily used as a cane when not being employed in association with the camera.

Another purpose of the invention is to provide a construction of this character which can be manufactured economically and sold at a comparatively low figure, which can be manipulated with ease and facility, and which is unlikely to become injured or damaged in ordinary service.

In order that those skilled in this art may fully understand the invention, in the accompanying drawing forming a part of this specification two preferred embodiments of the invention have been shown, and, for the sake of clearness, like reference numerals have been employed to designate the same parts throughout the several views.

In this drawing:—

Figure 1 shows one embodiment of the invention in its contracted or collapsed condition in which it may be used as a cane;

Figure 2 shows the same structure extended lengthwise for the application of a camera to its top end;

Figure 3 is an enlarged, fragmentary, central, longitudinal section through the standard when the latter is telescoped to its shortest length;

Figure 4 is a similar view of the upper portion only of the appliance when it is ready for the application of the camera thereto;

Figure 5 is a portion only of the central, longitudinal section through the inner and outer telescopic members of the structure showing the device extended its full length;

Figure 6 is a horizontal section on line 6—6 of Figure 3; and

Figure 7 is a partial view illustrating a different

form of top member or handle for the standard or cane.

Referring to the drawing, it will be readily perceived that the combined camera support and cane comprise an outer, elongated, cylindrical casing or shell 11 closed at its lower end by a suitably-shaped plug or closure 12 fitted and fastened therein in any approved manner as by a pin and extended outwardly or downwardly therefrom to form a supporting base or end for the structure, such element 12 being desirably somewhat tapered or rounded longitudinally both for the sake of appearance and for facilitating its functional properties.

At its upper open end, shell 11 is inturned slightly to form a retaining flange 14 and, at a position a short distance below such upper end, casing 11 is embossed to form a short length of screw-thread 13 which may extend around such shell a quarter or a third or more of the circumference thereof.

Slidable inside of such encasing shell is another cylindrical or tubular member 15 having a plug 16 pinned at 17 or otherwise secured in its top or upper end, such closure 16 having an outwardly-extended, central or axial, screw-threaded stud 18.

A hollow knob or handle 19 has a central screw-threaded aperture 21 therethrough receiving the similarly-threaded stud or projection 18, so that the position of the knob or handle on the stud may be varied or adjusted lengthwise thereof by turning the part 19 relatively to such supporting member 18.

Handle or knob 19 is open at its bottom and the lower portion of its interior is provided with a comparatively-coarse screw-thread 22 arranged and adapted to coact or to cooperate with the relatively-short, single screw-thread 13, whereby such knob or handle may by means of the companion screw-threads 13 and 22 be fastened to the top end of the exterior shell or casing 11 as indicated in Figures 1 and 3, in which position of course it supports the inner tube 15 suspended inside of the outer casing, and, if the knob is first turned to bring it to the upper end of the threaded stud 18 before fastening or connecting it to such outer casing, then the knob or handle will cover, shield, or protect the stud which does not then protrude from or extend beyond the knob, and the structure as a whole may be conveniently used as an ordinary cane.

The lower end of the inner tube 15 is closed by a plug 23 pinned therein or otherwise ap-

properly secured in place, such plug just below the end of such internal tube having a circular flange 24 slightly larger than the outside of the inner tube 15 and adapted, by coaction with the inwardly directed flange 14 on the outer casing or shell, to prevent telescopic withdrawal of such inner member longitudinally from the outer encasing member.

Below such flange 24 member or part 23 has three cam surfaces 26, shown in Figure 6, and a spirally-grooved or screw-threaded roller 27 is located between each such surface and the inner, cylindrical face of the outer shell 11, all of these rollers being retained in place by a confining disc or washer 28 held against the lower end of the part 23 by a suitable screw 29.

Obviously, this cam and roller construction forms a clutch which is slidable with the inner tube 15 inside of and lengthwise of the outer tube 11.

By turning the two parts 11 and 15 relatively to one another in one direction they may be firmly and securely clutched, clamped, or locked together, whereas the turning of such companion parts a small amount in the opposite direction readily and quickly unclutches them or releases them from one another, thereby permitting any required or desired longitudinal adjustment of the internal member in the companion external one, whereupon they may be again clutched together with facility by the mere relative rotary action referred to.

Assuming that the elements of the structure are firmly held together in the relation presented in Figures 1 and 3, in which the knob or handle extends to the upper end of and therefore adequately shields and protects the threaded stud 18, the device is in its most compact or collapsed condition and may be conveniently employed as an ordinary cane.

When the operator wishes to use the device as a support for a camera during the exposure of its one or more films or plates, he turns the knob or ball 19 a small amount to release thread 22 from the correlated or companion thread 13, thus freeing the inner tube and the parts which it carries from the outer tube, and after that he withdraws the inner tube from the outer one the needed amount or extent to attain the desired height adjustment of the standard as a whole and then turns the two tubular elements relatively to one another to clutch or lock them together.

Thereupon he spins the knob or handle on its supporting stud so as to cause it to descend and bear on the outer face of the plug or closure 16, as shown in Figure 4; or, if preferred, he may entirely unscrew the knob or handle from the stud, removing it temporarily therefrom.

The camera may, in the usual way, be mounted on the portion of the stud jutting or protruding upwardly from the handle, assuming that the latter has been left on the stud, or on the corresponding part of the stud if the handle has been taken off, and, during the taking of the pictures, the standard or post, resting at its lower end on the ground or floor and maintained in upright or erect position by the hand of the user, acts to bear or hold the camera and to keep its correct unmoved position during the picture-taking operation.

Upon completion of the one or more film or plate exposures, the camera is unscrewed from and removed from the standard or support, the knob or handle by turning is spun up on the

stud until its top face is slightly above or about on a level with the upper end of the stud to protect the latter, or if the knob or handle has been completely removed from the stud previously it is applied thereto in the position just indicated, then the two tubes are unclutched from one another and the inner one is slid down to its lowermost position in the outer one, whereupon the knob or handle is screwed onto the upper end of the exterior shell, thus holding all of the parts securely fastened together, as will be readily understood from what precedes.

Instead of employing the round or ball-like knob illustrated in Figures 1 to 4, inclusive, a different type of handle 119 may be used as illustrated in Figure 7.

The invention, defined as to its scope in the appended claims, is capable of a number of satisfactory embodiments in physical form and is therefore not limited and restricted to the precise and exact structural features shown, and, accordingly, various changes may be incorporated therein without departure from the heart and essence of the invention and without the loss or sacrifice of any of its material benefits and advantages.

I claim:

1. In an extensible and contractible single-leg standard adapted to support a camera, the combination of an elongated external casing having a cylindrical interior and an open end, an inner member telescopically fitted in said casing and adapted to be extended therefrom through said open end varying amounts to adjust the length of the standard, a cam-and-roller clutch on said member inside of said casing adapted to clamp said member to said casing at any desired point of adjustment by turning said member and casing relatively to one another in one direction and to unclamp said member from said casing upon their relative turning in the opposite direction, said clutch when freed from clamping engagement with said casing being slidable lengthwise in said casing with said member, a stud on the outer end of said member constructed for detachable connection with a camera, a handle adjustably mounted on said stud and adapted to expose or shield said stud, and a detachable connection between said handle and the adjacent end of said casing.

2. In an extensible and contractible standard adapted to detachably support a camera, the combination of an elongated external casing having a cylindrical interior and an open end, an inner member telescopically fitted in said casing and adapted to be extended out of the open end thereof varying amounts to alter the adjustment of the length of the standard, a cam-and-roller clutch on said member inside of said casing adapted to clamp said member to said casing by a relative rotary movement between said member and casing in one direction and to unclamp said member and casing upon a reverse relative rotary movement, said clutch being slidable in said casing with said member when said member and casing are unclamped from one another, a screw-threaded stud on the outer end of said member, a handle having a screw-threaded aperture receiving said stud whereby said handle is adjustable on said stud to expose the stud for the application of a camera thereto or to shield said camera receiving part thereof, and a detachable screw-threaded connection between said handle and the corresponding end of said casing, whereby the appliance may be used as a cane when said

handle is applied to said casing and is in a position to shield said stud and may be employed as a camera support of adjustable height when the handle is freed from said casing and is in a position to expose a portion of the stud for the application of the camera thereto and said member is held in adjusted position in said casing by means of said clutch.

3. In a longitudinally extensible and contractible single-leg standard designed to detachably support a camera, the combination of an elongated external casing open at its upper end, an inner member telescopically fitted in said casing and adapted to be extended therefrom through said open end for length adjustment of the stand-

ard, means at the upper end of said inner member for the demountable attachment of a camera thereto, a clutch inside of said casing adapted to clamp said member and casing together upon relative rotation of said member and casing in one direction and to unclamp said member and casing upon such rotation in the opposite direction to permit longitudinal adjustment of said member in said casing, and a shield having movement lengthwise of said member and adapted in the contracted condition of the standard to shield said camera attachment means and in an extended condition of the standard to expose said attachment means for use.

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