

No. 664,976.

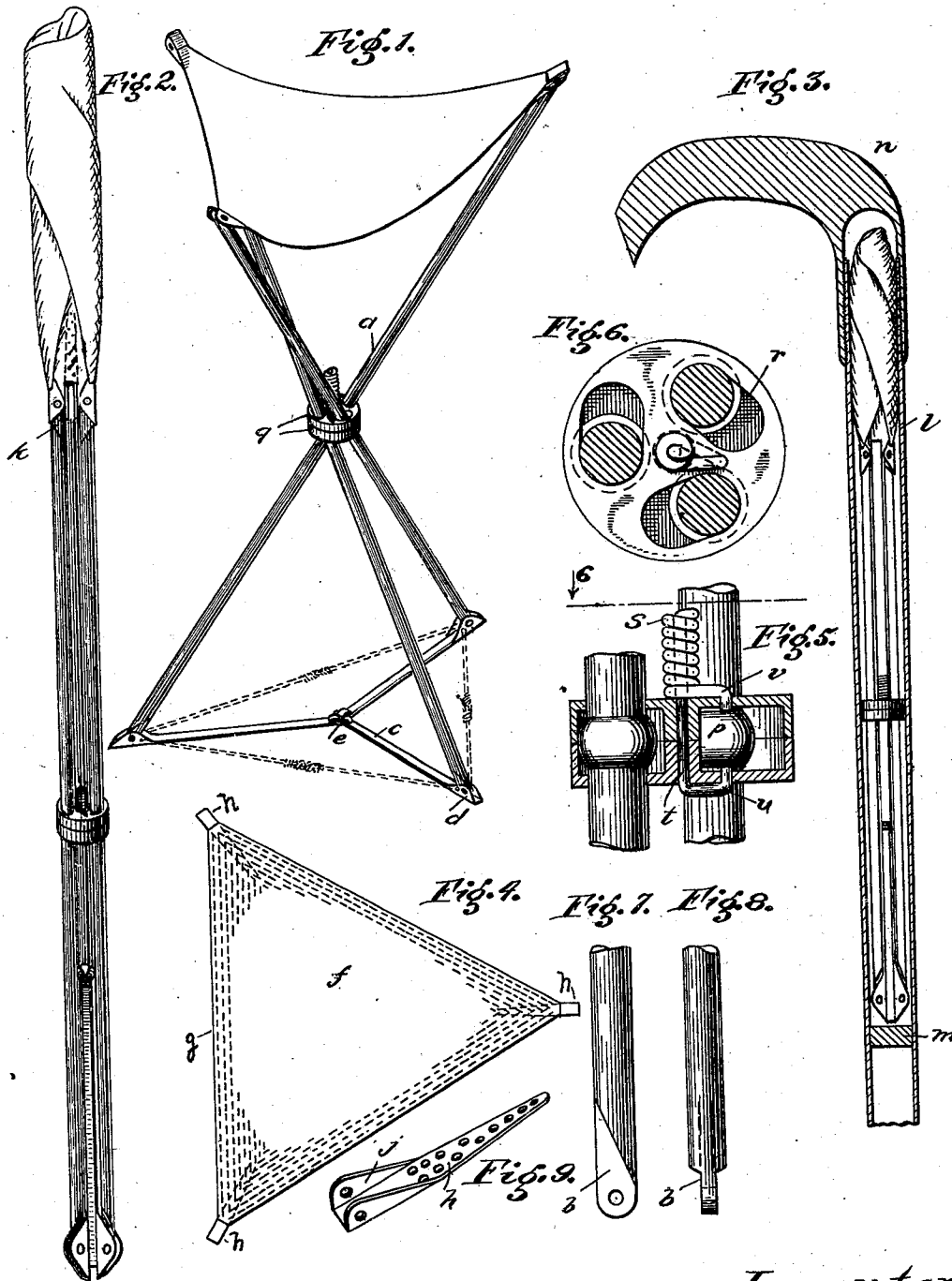
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J. K. SHEFFY & C. E. BURNAP.

CAMP STOOL.

(Application filed Aug. 1, 1899. Renewed Apr. 30, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## CAMP-STOOL.

SPECIFICATION forming part of Letters Patent No. 664,976, dated January 1, 1901.

Application filed August 1, 1899. Renewed April 30, 1900. Serial No. 14,939. (No model.)

*To all whom it may concern:*

Be it known that we, JAY K. SHEFFY and CHARLES E. BURNAP, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Camp-Stools, of which the following is a specification.

Our invention relates to certain improvements in the construction of what are known as "camp-stools," which consist of three rods or legs suitably connected at the center and provided at their upper ends with a flexible seat of some material, such as canvas, the parts being so arranged and combined that the legs can be spread apart while crossing at the center, thus furnishing a base for the support of the stool and holding the seat extended and ready for occupancy.

Our invention relates, primarily, to a construction of this class which is so arranged that the legs shall be expanded automatically from their closed or parallel position when released therefrom. This tendency to expand automatically also serves to hold the stool in its open position.

Finally, our invention relates to a device of the class described so constructed that it can be readily folded into a very small and compact space, so that it can be placed in a convenient receptacle provided for it, such as a hollow cane or walking-stick, in which it is carried when not in use and by which it can be thus made available when needed.

To further illustrate our invention, reference is had to the accompanying sheet of drawings, in which the same letters of reference are used to designate identical parts in all the figures, of which—

Figure 1 is a perspective view, showing the stool when it is in a position ready for occupancy. Fig. 2 is a perspective view of the stool when it is folded up. Fig. 3 is a sectional view, on a smaller scale, through a cane constructed to carry a camp-stool, which is shown in position inside of the cane. Fig. 4 is a plan view of the seat. Fig. 5 is a central section, on an enlarged scale, through the annulus and one of the legs when the parts are folded, as shown in Fig. 2. Fig. 6 is a sectional view on the line 6 6 of Fig. 5. Figs. 7 and 8 are views in different positions of one

of the legs, and Fig. 9 is a detached view of one of the straps connecting the seat and the legs.

The legs *a* are preferably constructed of small steel rods, which have their lower ends cut away, as at *b*, and connected by the small tension-straps *c*, which are pivotally secured to the legs by the ears *d*, between which the ends *b* of the legs take, the tension or tie straps *c* having their inner hook-shaped ends taking about the small ring *e*. By the employment of these tension-straps *c* we are enabled to prevent any bending strain upon the rods, no matter how great a weight is placed upon the stool, as any thrust of that character is transmitted to the tie-straps *c*, in which it becomes a tension, exerted longitudinally thereof.

A modification is indicated by the dotted-line construction of Fig. 1, in which the tension-straps extend between the adjacent legs, being jointed at their centers to permit of the folding, thus forming a triangular base. The seat *f* is made of a triangular strip of any desired flexible material, but preferably canvas, which has its edges turned over and stitched down, as shown at *g*. At the corners the metallic straps *h* are secured thereto in any desired manner, as by sewing with strong thread through the small holes with which the strap is provided. These straps are provided with the ears *j*, by which the seat is pivoted to the upper ends of the rods *a*, which are cut away, as at *k*, to accommodate the ears of the straps *h* the same as the ears of the tension-straps *c*. It will be readily seen that when the seat is occupied by any considerable weight the tension on the straps *h* will be transmitted to the upper ends of the rods *a*, practically longitudinally thereof, so that the strain of compression is exerted longitudinally thereof. Consequently a rod of very small cross-section is sufficient to make legs that are strong enough for any desired purpose. As a consequence of this construction we are enabled to make the legs so light and the parts generally so compact that when the stool is folded up, as is shown in Fig. 2, it can be readily inserted in the hollow body portion of the cane *l*, which may be constructed of wood or metal, as desired, and which if it is a hollow me-

tallic cane will be provided with a plug *m* to prevent the stool's being inserted therein for more than the required distance. The handle *n* may be conveniently screwed onto the hollow shaft or body portion of the cane, as shown at *o*.

To automatically open the stool when it is withdrawn from the cane or otherwise released from any confinement, we provide the following novel mechanism for holding the legs together substantially at their center: Each leg or rod *a* is provided with the enlargement *p*, which is preferably of the spherical form and serves to prevent the longitudinal movement of the legs in the annulus *q*, which, as will be seen from Figs. 5 and 6, preferably consists of two flanged disks having their flanges toward each other and provided with the substantially elliptical apertures *r*, cut through the disks, as shown in Figs. 1 and 6, so as to permit of the rods *a* assuming the inclined position therein. A strong coiled spring *s* is interposed between the two members of the annulus, so as to cause them to tend to rotate, so that the apertures *r* in the upper disk will be out of alinement with the apertures *r* in the lower disk. It will be readily seen that this tendency of the disks to rotate relative to each other will cause the rods *a* to spread out and assume an intersecting position, such as is shown in Fig. 1, as soon as they are released from the cane or any other holding member that may be employed. The tension-straps *c* serve to limit the amount of the separation, which might, however, be controlled by the angles at which the apertures *r* pass through the disks, as it will be seen that the greater this angle the greater the amount of displacement that will be permitted. We preferably construct these apertures and the length of the tie-straps *c* so that they will cooperate with each other and both serve at the same time to limit the opening movement. This spring *s*, as shown in Fig. 5, we preferably construct of the principal coil above the annulus, having the vertical portion *t* extending through apertures in the two disks, which apertures may have the tubular formation shown, if desired. The vertical portion has the horizontal arm *u*, the turned-up end of which takes through an aperture in the lower disk, while the horizontal arm *v*, terminating the other end of the coil, has its turned-down inner end taking through an aperture in the upper disk. By this construction and formation of the spring it will be seen that we secure not only the rotary action of these disks, but also the principal coil of the spring will cause the two members of the annulus to be held together.

The uses and operation of our improved construction will be readily apparent. The cane *l*, with the camp-stool therein, may be carried like any other ordinary cane, and upon occasion arising to use the camp-stool all that is necessary is to unscrew the handle *n* from the cane, after which the camp-stool

may be pulled out by taking hold of the seat. As soon as it is released from the cane it automatically assumes its open position, whereupon it is placed in any desired location and occupied in the usual manner.

While we have shown our invention as embodied in the form which we at present consider best adapted to carry it out, it will be understood that it is capable of modifications and that we do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the prior art.

What we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a device of the class described, the combination of the legs, consisting of separate rods extending from the seat to the ground, with the annulus for holding them together, and means for automatically throwing said legs from the parallel to a diverging position.

2. In a device of the class described, the combination of the legs, consisting of separate rods extending from the seat to the ground, with the annulus for holding them together so as to permit of an angular movement of said legs relative thereto but to prevent any longitudinal movement thereof, and means for automatically throwing said legs from a parallel to a diverging position.

3. In a device of the class described, the combination of the legs, consisting of separate rods extending from the seat to the ground, with means for holding them substantially at their centers, and connections between said legs for automatically throwing said legs from a parallel to a diverging position.

4. In a device of the class described, the combination of the legs, with the annulus for holding them together, said annulus consisting of two members provided with apertures through which the legs pass, and spring connections between said members tending to rotate them from a position in which said apertures directly register and the legs are held parallel to one in which said apertures do not register and the legs are in a diverging position.

5. In a device of the class described, the combination of the legs having the enlargements thereon, with the annulus for holding them together, said annulus consisting of two members placed on the opposite sides of said enlargements and provided with apertures through which the legs pass, means for preventing the separation of said members, and spring connections between them tending to rotate them from a position in which the legs are held parallel to one in which they are divergent.

6. In a device of the class described, the combination of the legs, with the annulus for holding them together, said annulus consisting of two flanged disks having their flanges directed toward each other and embracing enlargements upon the legs, and having elliptical apertures therein at an angle to the face

thereof, and spring connections for holding said disks together and tending to rotate them so as to carry the legs from a parallel to a diverging position.

5 7. In a device of the class described, the combination of the legs, with the annulus for holding them together, said annulus consisting of two members provided with apertures through which the legs pass, and spring connections between said members tending to rotate them so as to throw the legs from a parallel to a diverging position, said spring connections consisting of a coiled spring placed on the outside of said members and having one end passing through said members secured to one of them, and the other end secured to the other member.

8. In a device of the class described, the combination of the legs, with the annulus for

holding them together, connections for automatically throwing said legs from a parallel to a diverging position, and flexible but inelastic connections between the lower ends of said legs to limit their opening movement.

9. In a device of the class described, the combination of the legs, the flexible seat connecting the upper ends thereof, the flexible but inelastic connections between the lower ends of said legs to limit their opening movement, with the annulus loosely connecting said legs at their centers, and connections for automatically throwing said legs from their parallel to a diverging position.

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