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PORTABLE SAFETY SIGNAL

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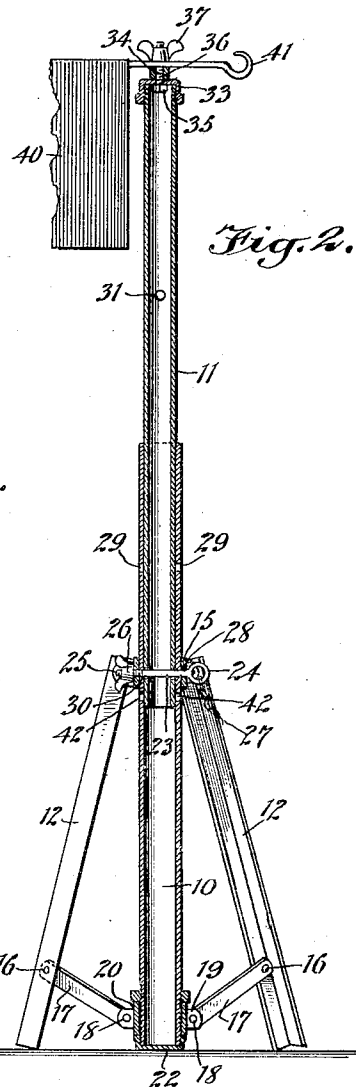
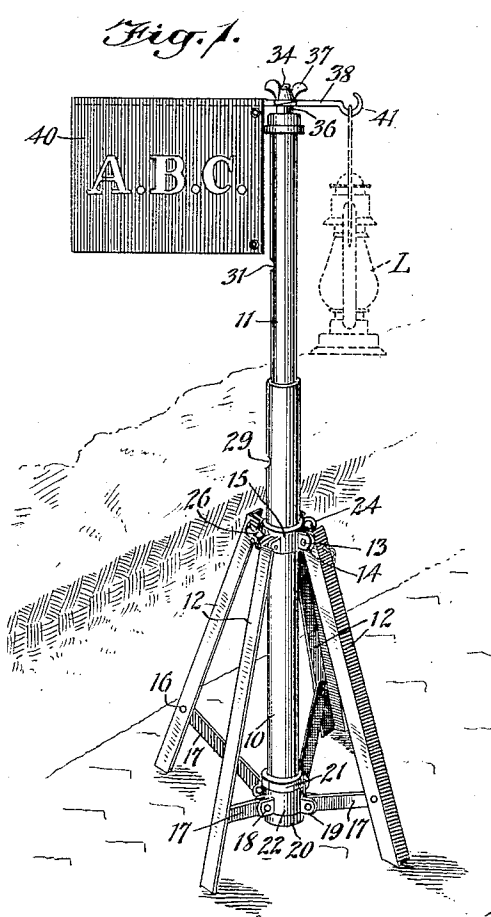


Fig. 5.

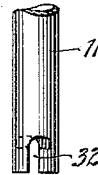


Fig. 4.

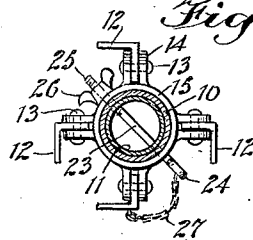
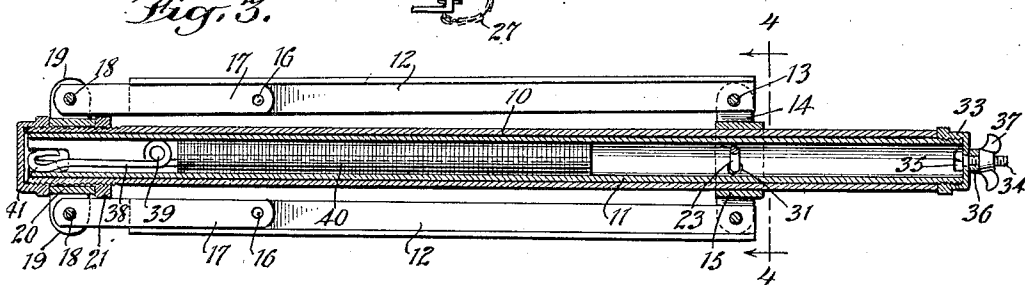


Fig. 3.



WITNESSES
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PORTABLE SAFETY SIGNAL

Application filed December 12, 1928. Serial No. 325,465.

This invention relates to safety signaling devices, and has particular reference to a portable safety signal adapted for use in safeguarding the public from injury where excavations on public highways are in progress.

The invention primarily comprehends a safety signaling device of this character which includes a stand capable of folding or collapsing to occupy a minimum amount of space for storage or transportation and which when set up affords a strong and rugged support for warning flags, lanterns or other signaling elements of this nature.

The invention further aims to provide a portable signaling outfit in which the stand is composed of tubular telescopically associated standard sections which may serve as a housing for enclosing the furred signal flag.

More specifically, the invention comprehends a signaling stand which includes a longitudinally extensible and contractible standard having a radially expansible and collapsible base, together with a common means for retaining the standard extended and the base expanded or for retaining the standard contracted and the base collapsed.

Other features of the invention reside in the simplicity of construction and mode of use of the device, the economy with which it may be produced and the general efficiency derived therefrom.

With the above recited and other objects in view, reference is had to the following description and accompanying drawing, in which there is exhibited one example or embodiment of the invention, while the claims define the actual scope of the same.

In the drawing:

Figure 1 is a perspective view of the device in its active set up position.

Figure 2 is a vertical sectional view thereof.

Figure 3 is a longitudinal sectional view of the device collapsed or folded, the same being on a slightly enlarged scale.

Figure 4 is a transverse sectional view taken approximately on the line indicated at 4-4 in Figure 3.

Figure 5 is a detail fragmentary side view

of the lower end of the upper standard section.

Referring to the drawing by characters of reference, the stand includes a longitudinally extensible and contractible standard, preferably consisting of a lower tubular section 10 and an upper tubular section 11, the latter being adapted to be moved from a telescoped inactive position within the lower section 10 to an extended active position projecting upwardly therefrom or vice versa. In order to support the standard in an upright position, a collapsible and expansible base is associated with the lower section 10 and the same consists of a plurality of legs 12, preferably of angle iron construction which are fulcrumed at their upper ends as at 13 to radially projecting ears 14 on a collar 15 adapted for longitudinal sliding movement on the lower section 10. The lower ends of the legs are pivotally connected as at 16 to links 17 which are in turn pivotally attached at 18 to the radial ears 19 on a fixed collar 20. The fixed collar 20 is held against movement between an abutment nut 21 threadedly engaged over the lower end of the section 10 and a cap 22 which is threadedly engaged over and closes the lower end of said lower section 10. Under this construction, it is obvious that upward movement of the sliding collar 15 on the standard section 10 will cause the legs 12 to be swung radially inward to a substantially parallel position with respect to the standard 10, while conversely sliding movement of the sliding collar 15 downwardly will effect radial outward movement of the lower ends of the legs 12 to a position for supporting the standard in an upright position. In order to provide a common means for locking the standard in an extended or contracted position and the base in its radially expanded or collapsed position, a bolt is provided which includes a shank 23 having a head 24 at one end, preferably in the form of an eye, and a threaded opposite end 25 receiving a wing nut 26. By providing the head 24 in the form of an eye, a chain or other flexible connection 27 may be used to anchor the bolt to the stand for reducing the possibility of its loss. The sliding collar 15 is provided with

diametrically disposed openings 28, the standard 10 with openings 29, 30 and the upper standard section 11 with a pair of diametrically disposed openings 31 and a pair of diametrically disposed bayonet slots 32 which open through the lower end of said upper standard section 11.

The upper end of the upper standard section 11 has threadedly engaged thereover a closure cap 33 through which extends the upwardly projecting threaded shank 34 of a bolt having a head 35 at its lower end. Exterio-
riorly of the cap, a retaining nut 36 is threaded on the shank 34 and the remaining portion of the shank is designed to receive a wing nut 37.

A signal member including a staff 38 is provided which is formed intermediate its ends with an eye 39 by coiling the same or otherwise. One end of the staff has secured thereto a flexible warning flag 40 while the opposite end is formed with a terminal hook 41. In practice, the eye 39 is adapted to be placed over the shank 34 of the bolt, after which the wing nut is screwed in place to hold the staff 38 in its horizontal position.

In use, with the standard contracted and the base collapsed or folded as illustrated in Figure 3, the setting up of the signaling device is accomplished in the following manner:

The wing nut 25 is removed from the shank 23 of the bolt and the bolt is withdrawn from the registering openings 28 in the sliding collar 15 and the openings 29 and 31 in the lower and upper sections 10 and 11. By disposing the device vertically and resting the cap 22 of the lower standard section 10 on the ground and the removal of the bolt from the openings thus described, the weight of the legs 12 and sliding collar 15 will automatically effect the radial expansion or spreading of the same to their active supporting position for holding the standard in its upright position. The next operation consists in removing the upper standard section 11 from the lower standard section to permit of the withdrawal of the flag staff 38 and the furled flag from the lower open end of the upper standard section in which the flag and staff may be conveniently housed, as illustrated in Figure 3. It will be observed that the coiled eye portion 39 of the staff and the hooked terminal 41 are so arranged and adjusted that they set up a frictional binding engagement with the bore of the standard section 11 which prevents gravitational displacement of the flag and staff from said section. After the flag and staff have been withdrawn from the upper section, the bolt 23 is inserted through the aligned openings 28 and 30 in the slidable collar 15 and lower standard section 10 and the wing nut 26 is again replaced on the protruding threaded end 25 of the bolt shank 23. The next operation consists in re-inserting the open end of the upper standard section

and engaging the bayonet slots 32 over the bolt shank 23 to lock and maintain the upper standard section in its extended upwardly projecting relation to the lower standard section. The eye 39 of the staff 38 is engaged over the bolt shank 34 after removal of the wing nut 37 and the wing nut 37 is replaced on the upwardly projecting portion of the bolt shank to secure the staff 38 in its horizontal position with the warning flag 40 depending from one side of the standard. The opposite hooked terminal 41 may receive a lantern L, as illustrated in Figure 1. Normally, the lower ends of the legs and the capped lower end 22 of the lower standard section 10 are designed to rest on the ground for supporting the standard in its upright position; but in some instances, where the supporting surface is uneven, it may be found desirable to elevate the capped end 22 of the lower standard section so as to insure the rigidity of the stand. In such instances, the elevation of the capped end 22 may be accomplished by providing the lower standard section 10 with a diametrically disposed set or pair of openings 42 disposed slightly below the openings 30, and it is obvious that in such cases the bolt 23 is engaged through the openings 42 in lieu of the openings 30.

When it is desired to fold or collapse and transport or store the device, the wing nut 37 is removed and the flag staff 38 displaced. The flag 40 is furled about the staff 38 and after the withdrawal of the upper standard section 11 from the lower standard section, the furled flag is inserted in the lower open end of the upper standard section, as illustrated in Figure 3. The wing nut 26 is removed from the bolt shank 23 and the bolt is withdrawn from the openings to permit of the collapsing of the legs 12 to their folded position, as illustrated in Figure 3. The section 11 is then telescopically inserted in the section 10 until the openings 31 align with the openings 29, it being understood that the folded condition of the legs 12 disposes the openings 28 in alignment with the openings 29. There only remains then to re-insert the bolt shank 23 through the openings and apply the wing nut 25, thereby locking the standard sections in contracted relation and the legs in collapsed condition. When folded, it is obvious that the complete device is compact and will occupy a minimum amount of space for storage and transportation.

What is claimed is:

1. A stand comprising pivotally connected links and legs, telescopic sections to the outer one of which the legs and links are connected for opening and closing, a cap to close an end of one of the sections to contain a furled flag and staff within the inner section, a cap to close an end of the other section and limit the contraction of the sections within each other, and means carried by the second cap

by which the flag staff is securable to said cap when abstracted from the inner section.

2. A stand comprising a main tubular section, legs to support the section, a collar to which the legs are attached, said collar being slidable on the section when it is desired to collapse the legs thereagainst, means extending through the collar and said section to fix the collar in an adjusted position when the legs are extended, and a second section insertible in one end of the main tubular section to produce a comparatively long standard, the second section having a bayonet slot to make a temporary connection with said means.

3. A stand comprising telescopic sections and legs and links which are pivoted to each other; a fixed collar on the outer section to which the links are pivoted, a slidable collar on the outer section to which the links are pivoted, and a bolt to secure the slidable collar both when the sections are telescoped and extended, the inner section having a bayonet slot to fit on the bolt and support said section in the extended position, both sections having matching holes to receive the bolt in common with the slidable collar when the sections are contracted.

Signed at Brooklyn, N. Y., in the county of Kings and State of New York, this 10th day of December, A. D. 1928.

PATRICK GOODMAN.

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