May 18, 1948. C. F. FABER 2,441,875

SAFETY SIGNAL FLAG

Filed Feb. 19, 1948

Fig. 4

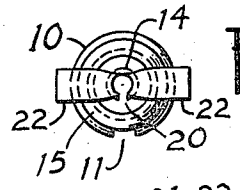


Fig. 5

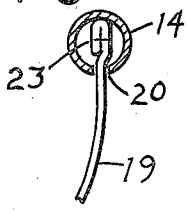


Fig. 3

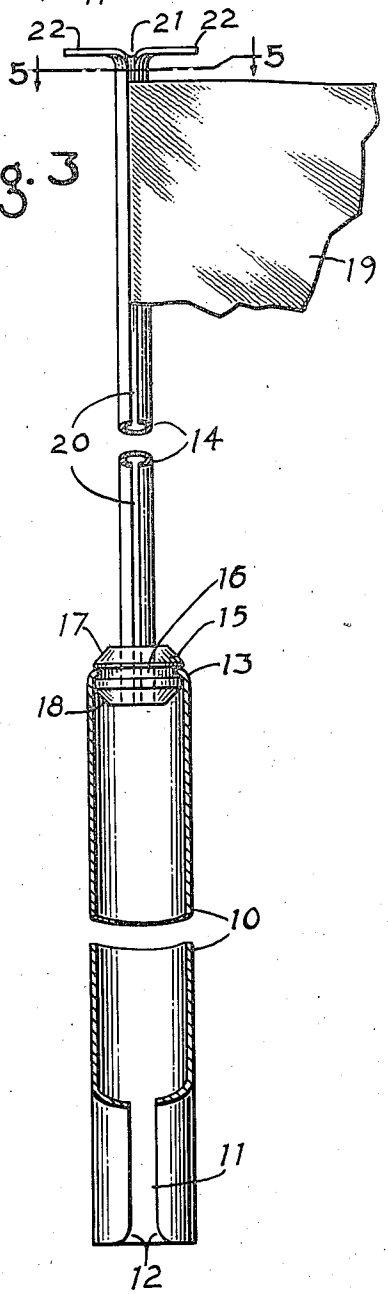


Fig. 2

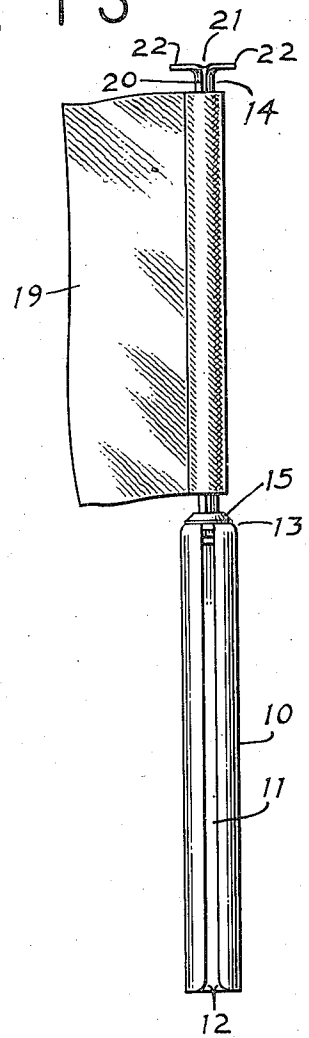
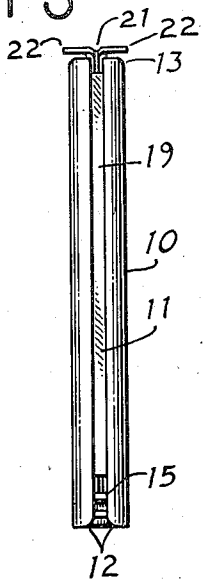


Fig. 1



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SAFETY SIGNAL FLAG

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5 Claims. (Cl. 246—488)

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This invention relates to flags and more particularly to a trainman's safety signal flag of an extensible and retractable character whereby the same can be collapsed telescopically and compactly into relatively short length so as to be placed in a kit box or container and kept conveniently at hand in the event of need for its use and which can be quickly extended and made ready for use.

The principal object is to improve generally upon such articles, particularly in simplifying and making more practical the construction and arrangement of parts, not only to facilitate the work and minimize the time and cost of manufacture but to also attain ease of operation in extending and collapsing the article and at the same time assure a reliable holding of the extended part in position for use.

Other objects and advantages to be attained will hereinafter more fully appear in the following description.

In the accompanying drawings, illustrative of a practical but non-limiting adaptation of the invention:

Figure 1 is a side elevation of the complete article in telescopically contracted condition;

Figure 2 is a side elevation with the extensible portion of the article extended;

Figure 3 is a view on an enlarged scale, with parts broken away and removed to foreshorten the view, and with the showing partly in elevation and partly in section;

Figure 4 is an upper end view of the article; and

Figure 5 is a section taken on or about the line 5—5 of Fig. 3.

Referring now to the drawings in detail, the numeral 10 designates an open-ended, longitudinally split, tubular body member or casing made of metal or other suitable material possessing the requisite strength and form retentive character and having certain inherent resiliency. Its longitudinal slot 11 extends entirely from end to end thereof, the lower corners of the slot being preferably rounded off, as at 12, and the edge portion of said tubular member 10 being turned inwardly, as at 13, to form an annular internal shoulder at its upper end.

Placed rotatably and longitudinally movable in the tubular body member or casing 10, is a stem or flag stick 14 having at its inner end a collar or headed enlargement 15 which is of an overall diameter to fit rotatably and longitudinally slidable in said tubular member 10. The part 15 has an annular peripheral groove 16 to receive

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snap-fittedly therein said inturned annular shoulder 13 of the member 10 when the flag stem or stick 14 is moved to its extended position (see Figure 3).

The collar or headed enlargement 15 of the stem or stick 14 is beveled at its top and bottom corners, as at 17, 18. The lower beveling or tapering 18 of the collar or headed enlargement 15 is provided so as to have a wedging effect in engagement with the inturned annular shoulder 13 and thus cause a spreading of the upper end portion of said tubular member 10 when the stem or stick 14 is grasped and moved forcibly into the member 10. In this connection, it is noted that if the stem or stick 14 is moved straight or substantially truly longitudinally into the tubular member 10 the shoulder 13 will snap into the annular groove 16 of the collar or headed enlargement 15, as shown in Figure 3, the same as when the collar or headed enlargement 15 is moved outwardly in said member 10 upon extension of the stem or stick 14.

To disengage the annularly grooved portion 16 of the collar or headed enlargement 15 it is only necessary to forcibly tilt the stem or stick 14 so that the collar or headed enlargement 15 becomes canted sufficiently to cause a spreading of the upper end portion of the split tubular member 10, whereupon the stem or stick 14 with its collar or headed portion 15 can be forced inwardly in the member 10.

It is here noted that the fitting dimensions of the parts are such that while the sliding movement of the stem or stick 14 and its collar or headed enlargement 15 is rather easy and freely in the tubular member 10, the stem or stick 14 is supported quite steadily in its extended relation to the tubular body member or casing 10 when the parts 13 and 15 are engaged as shown in Figure 3.

In the broad sense of the flag stem or stick 14, the same may be of any suitable structural form, except that it must, of course, be somewhat smaller in diameter than the interior of the tubular body member or casing 10, because it has to vary and have wound thereon a flag 19, and the member 10 must be of an interior diameter to receive and house the stem or stick with the flag wound thereabout. Preferably, however, the stem or stick 14 is tubular as shown, and slitted throughout its length, as at 20, the lower end of the slit being closed by the collar or headed enlargement 15. The slit 20 is open at its upper end, as at 21, and the adjacent end portion of the stem or stick 14 is again split diametrically

opposite the slit 20, and, as thus bifurcated, the stem or stick is formed with two opposed radial tongues 22 which constitute a cross-head or T-member to serve as a handle or grasping portion for pulling the stem or stick outwardly or pushing it inwardly in the tubular body member or casing 10 and for rotating it to wind the flag 19 thereon.

The winding of the flag 19 on the stick or stem 15 may be done while the stick or stem is extended or after the stick or stem is moved back into the tubular body member or casing 10, that is to say, while the collar or headed enlargement 15 is still engaged rotatably with the inturned shoulder or flange 13 of said body member or casing 10, or, if desired, the stem or stick 14 with the flag 19 still unrolled thereon, can be moved back into the body member or casing, in which case the flag is moved edgewise into and through the slot 11, and afterwards the stem or stick 14 can be turned by the cross-head or T-member 22, thereby winding the flag 19 on the stem or stick and drawing the flag in through the slot 11. In any case, the flag 19 is wound between the collar or headed enlargement 15 and the cross-head or T-member 22 of the stem or stick 14.

The flag 19 may be secured to the stem or stick 14 in any desired or approved manner. However, for ready replacement and renewal, the flag is preferably removably mounted. In cases of the split tubular stem or stick 14 as shown, the flag is slid edgewise into the slit 20, which latter is only wide enough to permit the material of the flag to slide rather tightly therein and the edge portion of the flag is hemmed, as at 23, (see Figure 5), or otherwise formed with a thickened or bulbous portion within the bore of the stem or stick to prevent withdrawal of the flag entirely from the stick laterally through the slit 20.

While the collapsible and extensible stem or stick 14 can be used for any kind and size of flag, it is primarily designed and intended for use with a trainman's signal flag which, when not in use, is collapsed and placed in a kit box or container.

Not only can the article be collapsed and extended, at will, but in its extended condition it can be conveniently handled and manipulated as a signal in the hand of the trainman or flagman holding it by the body member or casing 10, or, if need be, the open lower end portion of the member or casing 10 can be slipped or forced over some supporting projection which may be nearby, or else said end portion of the member or casing may be stuck into the ground in or alongside of the roadway.

Obviously, while the illustrated construction and arrangement is that of a practical adaptation of the invention, the same is not a limitation, as modification and change may be made within the spirit of the invention as defined in the appended claims.

What is claimed is:

1. An extensible and collapsible flag holder comprising a tubular open-ended and longitudinally slotted body member of resilient form-retentive material, an open end portion of said

member having an internal shoulder, and a flag stick movable rotatably and longitudinally in said body member and extensibly and retractably through said shouldered open end of said member, said stick having an annularly and peripherally grooved collar on its inner end portion fitted rotatably and longitudinally slidable in said body member and in the extended working position of said stick having a snap-fitted releasable holding engagement with the internal shoulder of the body member.

2. A flag holder as set forth in claim 1, wherein the collar of the flag stick has its upper and lower annular corners beveled.

3. A flag holder as set forth in claim 1, wherein the flag stick is tubular and slitted throughout its length, with the inner end of the slit closed by the collar on the stick but the outer end of the slit being open, and the stick is again slitted at its outer end and diametrically opposite the adjacent open end portion of the lengthwise slit, the thus bifurcated outer end portion of the stick being formed with a pair of oppositely extended radial members constituting a cross-head for the stick, and a flag secured marginally in the stick and extended through the lengthwise slit of the stick.

4. A flag holder comprising a tubular open-ended body member of form-retentive and inherently resilient material, said member being slotted longitudinally from end to end and one open end portion thereof being formed with an internal annular shoulder, and a flag stick carrying a flag to be rolled upon and unrolled from the same, said stick having a head element at its outer end and a collar at its inner end, said collar being beveled annularly at its inner and outer corners and being of an overall diameter to fit rotatably and longitudinally slidable in said tubular body member and having an annular peripheral groove to receive snap-fittedly the internal annular shoulder of the body member.

5. A flag holder comprising a cylindrical, open-ended, tubular body and casing member of resilient, normally form-retentive material, the same being slotted longitudinally at and adjacent to at least one open end thereof, and an extensible and retractable flag stick rotatable and movable longitudinally in said body member and being extended and retracted through said open end of the member, said flag stick having a head element at its outer end for rotating the stick and for moving it longitudinally inward and outward and a collar at its inner end fitted rotatably and longitudinally slidable in said body member, said collar and the interior of the body member adjacent its open end having cooperative provision for releasable snap-engagement between said parts in the extended position of the stick, the movement of the stick into such engagement causing a momentary expansion of the adjacent portion of the body member and the release of such engagement between the parts being effected by a forcible preliminary tilting movement of the stick with respect to the body member.

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