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Precourt

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[54] **COLLAPSIBLE AND PORTABLE SIGNALLING DEVICE**

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[52] **U.S. Cl.** ..... **40/125 G,** 40/129 A, 116/63 P

[51] **Int. Cl.** **G09f 17/00,** G09f 21/02

[58] **Field of Search** ..... 40/129 A, 129 R, 40/129 C, 125 R, 125 G, 125 H, 125 F; 116/63 P

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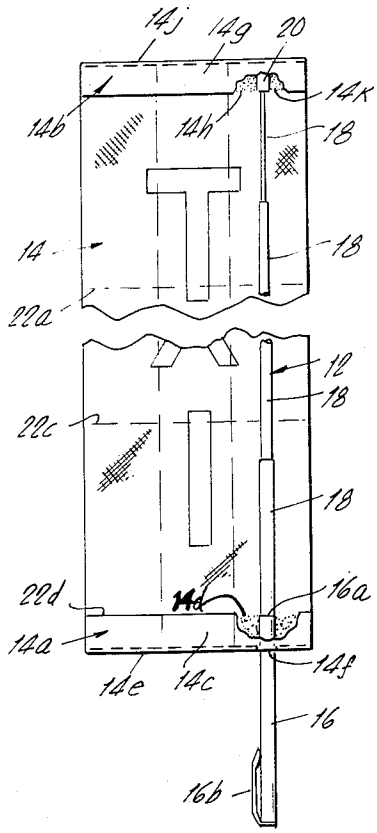
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Assistant Examiner—John F. Pitrelli
Attorney—Morton Amster et al.

[57] **ABSTRACT**

A collapsible and portable signalling device including a collapsible support member and a foldable sign attached thereto. The collapsible support member includes a base member, intermediate telescoping members received within the base member and a supporting end member. One end of the foldable sign is attached to the base member and the other end is attached to the supporting end member so that in a collapsed position the sign ends are adjacent to and abut each other. Transverse and longitudinal fold lines are formed within the foldable sign so that it may be folded into a small portable package.

7 Claims, 5 Drawing Figures



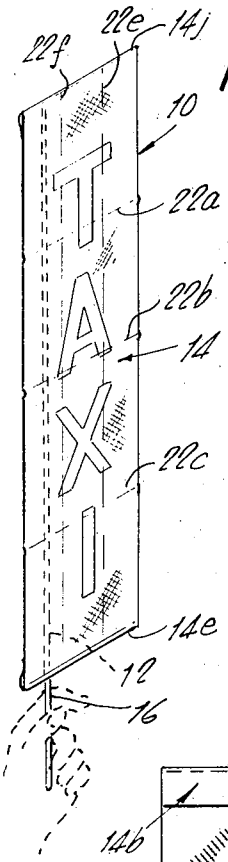


FIG. 1

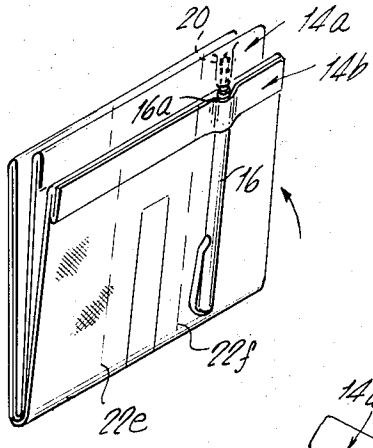


FIG. 4

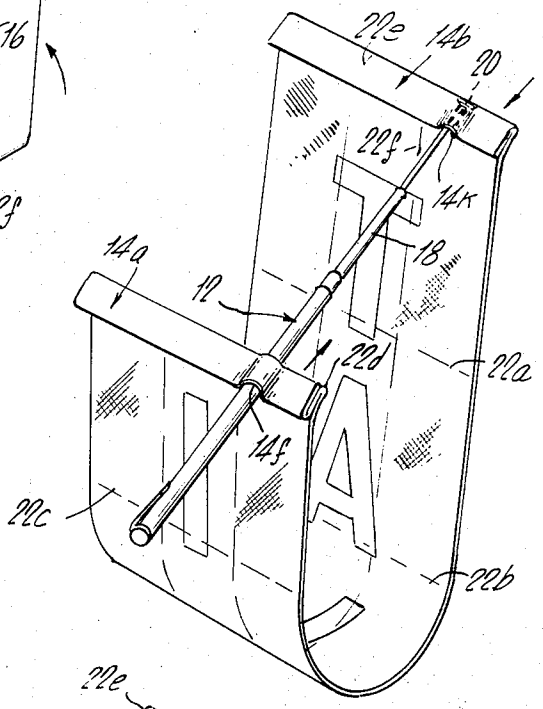


FIG. 3

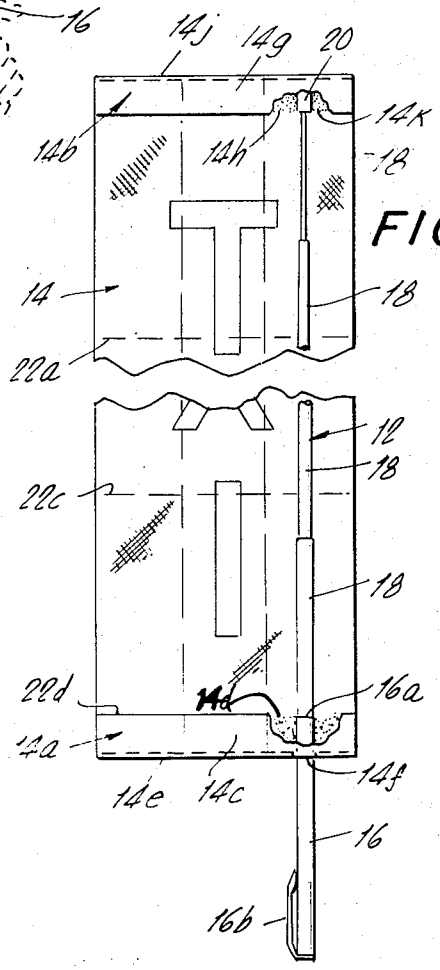


FIG. 2

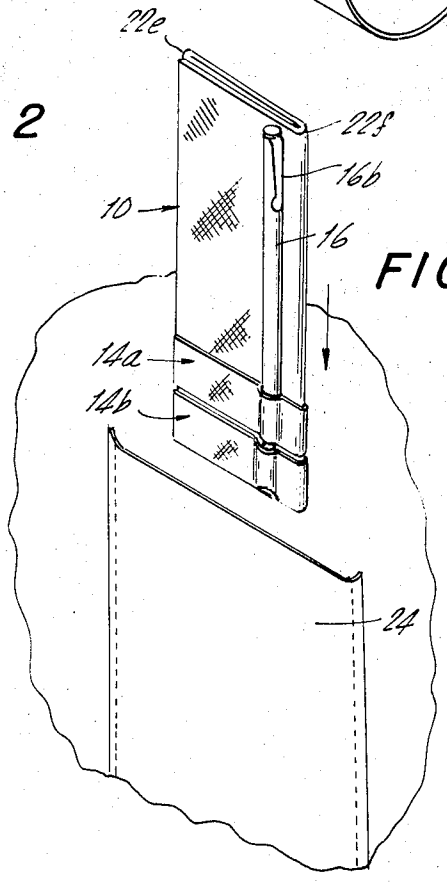


FIG. 5

COLLAPSIBLE AND PORTABLE SIGNALLING DEVICE

The present invention relates generally to improvements in signalling devices and, more particularly, it pertains to a new and improved signalling device which is collapsible and portable.

The general concept of collapsible signs and signalling devices is well known in the art. However, it has long been desirable to provide a collapsible signalling device which may be easily opened, used, and then collapsed or folded into a small portable package. Further, it would be desirable if such a collapsible signalling device be small enough to be conveniently stored in the user's pocket or purse so that it may be carried with the user and employed wherever and whenever needed, yet large enough to provide a clearly noticeable sign. In addition, it has long been desirable to construct such a collapsible signalling device so that it may be economically manufactured and inexpensive enough to provide a practical and viable alternative to other types of signalling arrangements.

For example, in highly populated cities it has been difficult and, at times, dangerous for an individual to attract the notice of a taxi driver. More particularly, the individual is usually among a crowd of people and in order to be noticeable he must enter the street and wave his or her hand to signal approaching taxi drivers. However, the taxi driver frequently does not notice the waving individual until it is too late or, sometimes he is not noticed at all due to the surrounding crowd of people. Accordingly, it would be highly advantageous and desirable for such an individual to acquire an inexpensive signalling device which is both large enough to be noticeable and outstanding, and yet small enough to be conveniently carried and stored on the person of the user.

Accordingly, it is an overall object of this invention to provide a signalling device which fills these needs. More particularly, it is an object of this invention to provide an inexpensive signalling device which is large enough to be clearly noticeable at a distance. Further, it is also an object of this invention to provide a signalling device which may be easily collapsed and folded into a small package and conveniently stored and carried on the user.

Briefly, in accordance with the principles of the invention, a collapsible and portable signalling device is provided which includes a collapsible support member and a foldable sign fixedly attached thereto. The collapsible support member includes a base member, intermediate telescoping members received within the base member and a supporting end member. One end of the foldable sign is attached to the base member and the other end is attached to the supporting end member so that in a collapsed position the sign ends are adjacent to and abut each other. The sign ends are formed by two or more layers of foldable material laminated to each other. At a point along the laminated ends of the sign, an opening is formed between the layers so that the base member may extend through the opening formed in one end of the sign and so that the supporting end member may extend into the opening formed at the other end of the sign. In this manner, the collapsible support member is fixedly secured between the laminated layers at each end of the sign.

When the collapsible support member is collapsed by telescoping the intermediate members into the base member, the foldable sign attached thereto must also be arranged or constructed so that it may be easily folded into a compact package which may be conveniently carried on the person of the user. To this end, the foldable sign has transverse and longitudinal preformed fold lines formed therein. In this manner, as the collapsible support member is contracted into its fully collapsed position, the user also folds the foldable sign along the transverse fold lines about an axis perpendicular to the collapsible support member to fold the sign on itself at least twice. After the collapsible support member has been completely collapsed and the foldable sign transversely folded, the foldable sign is then folded along the longitudinal fold lines about an axis parallel to the collapsible support member. The collapsible and portable signalling device may then be conveniently stored in any pocket or purse. To use the portable signalling device, the user merely unfolds the sign about the longitudinal and transverse fold lines and extends the collapsible support member to its fully extended position.

Accordingly, it can be seen that the present invention provides an inexpensive portable signalling device which may be easily actuated between a collapsed position and an extended position. Further, in its extended position the signalling device is clearly noticeable and outstanding while in its collapsed position it may be conveniently stored on the person of the user.

Further objects, features and advantages of the present invention will become apparent upon the consideration of the following detailed description of a presently preferred embodiment when taken in conjunction with the accompanying drawing, wherein:

FIG. **1** is a front elevational view of the collapsible and portable signalling device of the present invention in its fully extended position;

FIG. **2** is a rear elevational view, with parts cut away, of the present invention;

FIG. **3** is a perspective view of the signalling device of the present invention in an intermediate collapsed and folded position;

FIG. **4** is a perspective view of the signalling device of the present invention in a completely collapsed, but partially folded configuration; and

FIG. **5** illustrates the signalling device of the present invention in its completely collapsed and folded position and ready for insertion into the pocket of the user.

Referring now to FIG. **1**, the collapsible and portable signalling device of the present invention, which is generally designated by the reference numeral **10**, comprises a collapsible support member **12** and a foldable sign portion **14** fixedly attached thereto. In FIG. **1**, the signalling device **10** is illustrated in its completely extended and unfolded configuration and is ready for use. It should be understood that the foldable sign portion **14** may have any desired message printed thereon but, for the purposes of illustration, the signalling device of the present invention is illustrated as a taxi signalling device.

Referring now to FIG. **2**, there is shown a rear elevational view of the signalling device **10** of the present invention. As may be seen most clearly therein, the collapsible support member **12** includes a base member **16** and a series of intermediate telescoping members attached to the base member **16** and adapted to be tele-

scopically received therein. The collapsible support member **12** also includes a supporting end member **20** having a diameter approximating that of the base member **16**, so that when the collapsible support member **12** is collapsed, the supporting end member **20** will not be telescopically received within the base member **16**, but will abut against the upper end **16***a* of base member **16**.

The foldable sign portion **14** includes an indicia-carrying surface or face on each side thereof so that any desired message may be placed on either or both of the faces. The foldable sign portion **14** also includes a lower end **14***a* and an upper end **14***b* which are fixedly attached to the upper end **16***a* of base member **16** and supporting end member **20**, respectively. The lower end **14***a* of foldable sign portion **14** is constructed in such a manner so that it may be easily attached to upper end **16***a* of base member **16**. More particularly, the lower end **14***a* includes two layers **14***c*, **14***d* laminated to each other by any suitable sealing means, such as an adhesive. In one particular form of the invention, the lower end **14***a* is formed by simply folding a portion **14***c* of the foldable sign **14** about an axis **14***e* onto portion **14***d* and applying a suitable adhesive between the layers to form the desired lamination. An opening **14***f* is then formed in the fold axis **14***e* in order to form an opening wide enough through which base member **16** may be extended between layers **14***c*, **14***d*. A suitable sealing means is then applied to the upper end **16***a* of base member **16** so that it is fixedly attached and adheres to layers **14***c*, **14***d*.

A similar arrangement is employed to fixedly attach the upper end **14***b* of foldable sign portion **14** to the supporting end member **20**. More particularly, an end portion **14***g* of foldable sign portion **14** is folded over onto portion **14***h* about a folding axis **14***j* in order to form two layers which may be suitably laminated to each other. In order that the supporting end member **20** may be placed between the two layers **14***g*, **14***h* and fixedly attached thereto, an area **14***k* between the two layers **14***g*, **14***h* are not laminated to each other. In this manner, a suitable adhesive is applied to supporting end member **20** so that it may be placed between layers **14***g*, **14***h* and fixedly attached at **14***k*.

In order that the signalling device **10** may be folded into a small package, preformed fold lines or crease lines are formed in the foldable sign **14**. In a preferred form of the invention, transverse fold lines **22***a*, **22***b*, **22***c* and **22***d* are preformed in the foldable sign portion **14**. In addition, longitudinal fold lines **22***e* and **22***f* are also preformed in the foldable sign portion **14**.

Accordingly, as may be seen in FIG. **3**, the signalling device **10** of the present invention is easily collapsed and folded into a small portable package. More particularly, as shown in FIG. **3**, collapsible support member **12** may be fully collapsed by pushing base member **16** and supporting end member **20** together so that the intermediate telescoping members **18** may be received within the base member **16**. In its fully collapsed position, supporting end member **20** of collapsible support member **12** is adjacent to and abuts against the upper end **16***a* of base member **16**. As collapsible support member **12** is collapsed, foldable sign portion **14** will fold over on itself about transverse fold line **22***b*. In addition, lower end **14***a* will be folded over onto foldable sign portion **14** about transverse fold line **22***d*. Accordingly, it should be clear, that when collapsible support member **12** is in its fully collapsed position, lower end **14***a* of foldable sign portion **14** will be adjacent to and abut against upper end **14***b* of foldable sign portion **14**, as may be seen most clearly in FIG. **4**.

As may be seen in FIG. **4**, the next step in the folding operation is completed by folding sign portion **14** over onto itself again about transverse fold lines **22***a*, **22***c*. Although FIG. **4** illustrates that signalling device **10** has been folded and collapsed into a relatively small package approximately 4 × 4 inches square, it may be still further compacted so that it may be easily and conveniently stored within a standard size pocket **24**, as shown most clearly in FIG. **5**. To complete the final folding operation, sign portion **14**, as shown in FIG. **4**, is folded behind itself about longitudinal fold line **22***e*. Sign portion **14** is then folded about longitudinal fold line **22***f* to form the compact package illustrated in FIG. **5**. In order that the collapsed and folded signalling device **10** may be conveniently inserted into a pocket, such as a shirt pocket **24**, and avoid movement or loss thereof, a suitable clip **16**b is provided on base member **16** so that signalling device **10** may be attached to pocket **24**.

When it is desired to use signalling device **10**, it is merely unfolded about its longitudinal fold lines **22***e*, **22***f* and then unfolded about transverse fold lines **22***a* and **22***c*. Then, in order to completely unfold sign **14** about transverse fold lines **22***b* and **22***d*, collapsible support member **12** is opened to its fully extended position by gripping supporting end member **20** and forcing it away from base member **16**. The user may then grip base member **16** and hold signalling device **10** in the manner illustrated in FIG. **1** so that sign **14** may be clearly observed.

From the foregoing, it will be appreciated that there has been provided in accordance with the present invention, an inexpensive signalling device which is large enough in its unfolded position to be clearly noticed and outstanding, yet is compact enough in its collapsed and folded position to be conveniently stored or carried on the person of the user.

A latitude of modification, change and substitution is intended in the foregoing disclosure and in some instances, some features of the invention will be employed without a corresponding use of other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the spirit and scope of the invention herein.

What is claimed is:

1. A collapsible and portable signalling device comprising a collapsible supporting member which may be actuated between a collapsed position and an extended position, said collapsible member having a base member, a plurality of intermediate telescoping members which may be collapsed and substantially received within said base member and a supporting end member which in the extended position is remote from said base member, a sign formed of foldable material and having a length substantially greater than its width, said sign having first and second indicia carrying-faces and having indicia thereon, said sign having a first end which is fixedly attached to the upper end of said base member and a second end which is fixedly attached to said supporting end member, said sign being of a length substantially equal to the distance between the upper end of said base member and said supporting end member when said collapsible member is in its extended position, said collapsible member being constructed so that

in its collapsed position the upper end of said base member and the first end of said sign are adjacent said supporting end member and the second end of said sign, said foldable sign being foldable to a length substantially equal to the length of said collapsible member in its collapsed position and being further foldable to a reduced width to form a small package in combination with said collapsible member.

2. A collapsible and portable signalling device in accordance with claim **1** wherein the first end of said sign is formed from layers of said foldable material laminated to each other, the upper end of said base member extending between said layers and being fixedly attached thereto.

3. A collapsible and portable signalling device in accordance with claim **2** wherein the second end of said sign is formed from layers of said foldable material laminated to each other, said supporting end member extending between said layers and being fixedly attached thereto.

4. A collapsible and portable signalling device in accordance with claim **3** wherein said foldable sign has preformed fold lines formed therein.

5. A collapsible and portable signalling device in accordance with claim **4** wherein said preformed fold lines extend transversely of said sign and are substantially perpendicular to said collapsible member so that said sign may be folded over on itself at least twice about said transverse fold lines.

6. A collapsible and portable signalling device in accordance with claim **5** wherein said preformed fold lines extend longitudinally of said sign and are substantially parallel to said collapsible member so that said sign may be folded about said longitudinal fold lines.

7. A collapsible and portable signalling device in accordance with claim **1** wherein the first end of said sign which is fixedly attached to the upper end of said base member includes an opening formed therein through which said base member extends.

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