Feb. 7, 1956 M. J. THRELFALL ET AL 2,733,881

COLLAPSIBLE STAND

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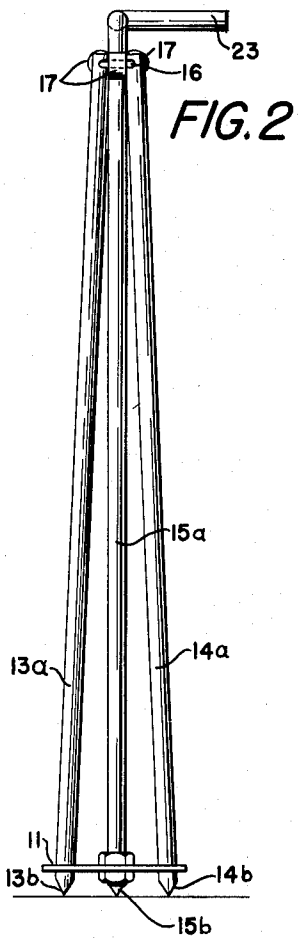

FIG. 2

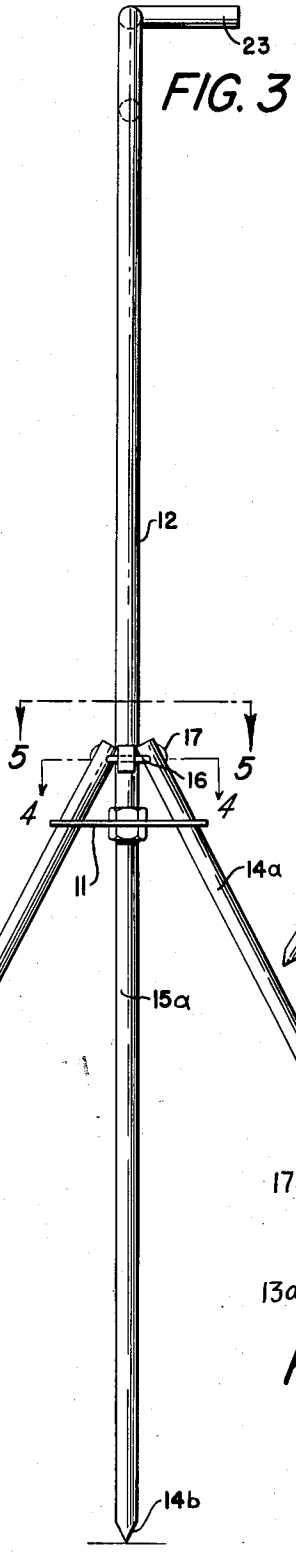

FIG. 3

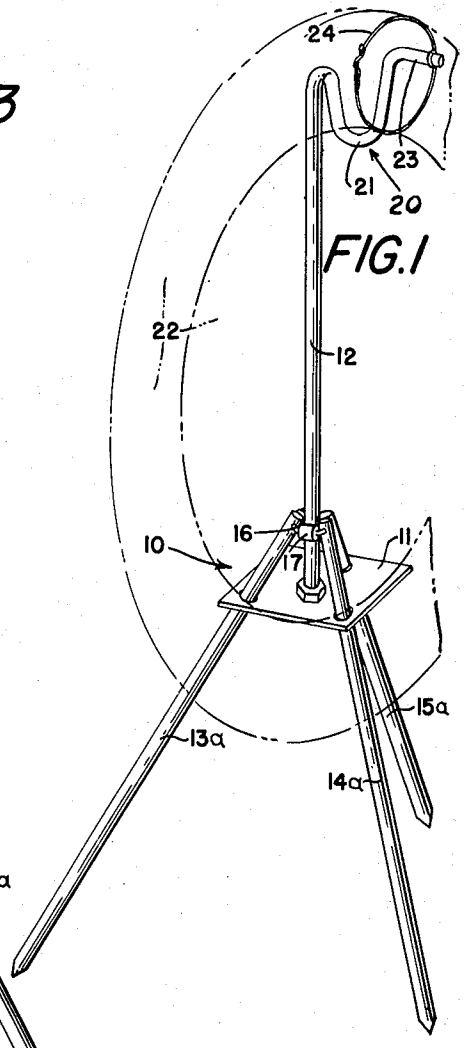

FIG. 1

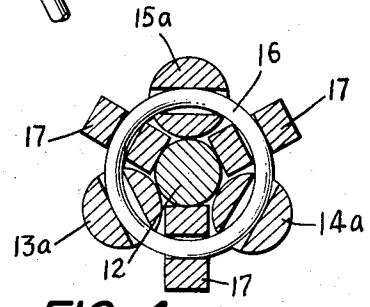

FIG. 4

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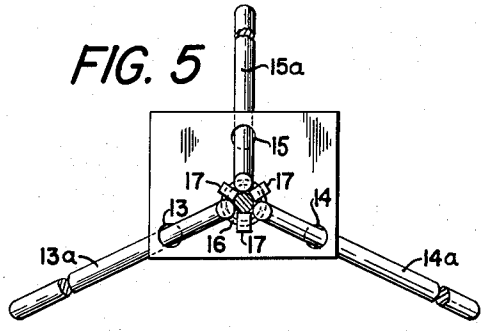
FIG. 5



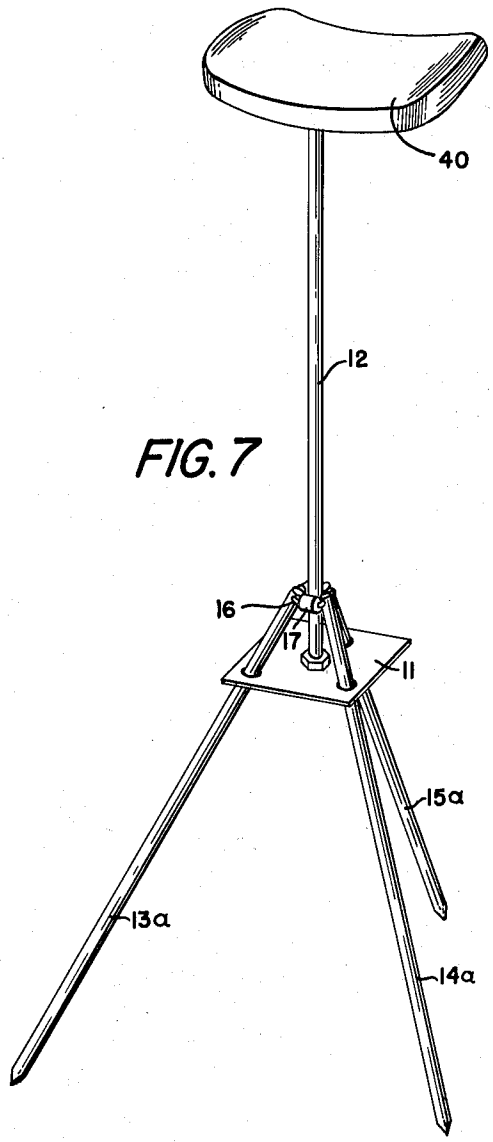


FIG. 7

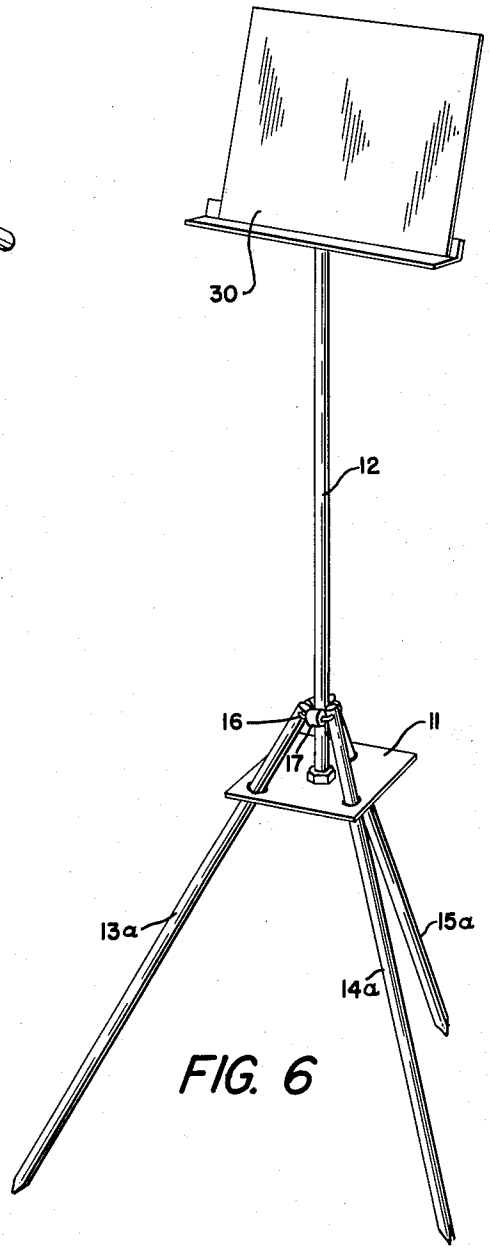


FIG. 6

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COLLAPSIBLE STAND

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Application July 7, 1951, Serial No. 235,622

4 Claims. (Cl. 248—27.8)

This invention relates to collapsible supporting stands and in particular relates to a collapsing mechanism for use in conjunction with various types of supporting stands, such as floral wreath stands, music stands, etc.

In the past supporting stands of the type described, have for the most part, employed a pivot joint in the leg portions thereof, thereby allowing the legs to fold upon themselves to provide the requisite collapsibility necessary to permit packaging in the same box as the object to be supported. Stands of this type, however, have been found unsatisfactory, in that the same were susceptible to collapsing upon being subjected to the slightest additional pressure over that of the object being supported.

The remaining prior art on collapsible stands has been directed towards stands which do not in actuality collapse, but rather feature legs which merely swing into the plane of the other legs without undergoing a reduction in their over-all length. The obvious disadvantage of such a structure lies in the fact that the over-all length of the stand cannot be reduced, and, accordingly, in many cases, such as the floral wreath business, the stand cannot be shipped in the same box as the object to be supported.

It is one object of this invention to provide a collapsing mechanism for supporting stands wherein the reduction in the over-all length of the stand is accomplished without the use of pivotal joints.

It is a further object of this invention to provide a collapsing mechanism for supporting stands wherein the addition of weight will tend to increase the over-all stability of the supporting stand.

It is a still further object of this invention to provide a collapsible wreath stand capable of being packaged with the floral wreath to be supported.

These and other objects of the invention will become more apparent upon consideration of the following brief specification and the accompanying drawings.

Of the drawings:

Figure 1 is a perspective view showing a floral wreath (chain-dotted lines) being supported on a stand having incorporated therein the new and novel collapsing mechanism.

Figure 2 is a front view of the stand illustrated in Figure 1, the same being shown in collapsed or retracted position.

Figure 3 is a view, similar to Figure 2, but illustrating the stand in extended position.

Figure 4 is an enlarged sectional view of the collapsing mechanism.

Figure 5 is a view taken on the lines 5—5 of Figure 3.

Figure 6 is a perspective view of a modified form of the invention wherein the collapsing mechanism is incorporated in a collapsible music stand.

Figure 7 is a perspective view of another modified form of the invention wherein the collapsing mechanism is incorporated in a collapsible portable seat.

Referring to the drawings, and in particular to Figures 1–5 thereof, the improved collapsing mechanism, generally indicated as **10**, is shown incorporated in a collapsible wreath stand having wreath supporting means **20** thereon for fixedly fastening a wreath **22** (shown in chain-dotted lines) thereon.

As best shown in Figure 1, the improved collapsing mechanism **10** includes a rectangular plate **11**, having affixed to the central portion thereof a perpendicularly extending shaft **12**, the opposite end of which terminates in wreath supporting means **20** to be described later. Slidingly receivable through oversized spaced apertures **13**, **14** and **15** in the plate **11** are legs **13***a*, **14***a* and **15***a*, respectively, each of said leg members having one free end thereof provided with ground or surface engaging means **13***b*, **14***b* and **15***b*, respectively, and having the opposite free ends thereof apertured so as to receive therethrough a joining ring **16**, whereby these free ends of the legs **13***a*, **14***a* and **15***a*, respectively, may be joined together so as to encircle the perpendicularly extending shaft **12** (see Figures 1 and 4.)

For the purpose of permitting a smooth collapsing movement under all circumstances, cylindrical shaped rotatable spacer members **17**, **17**, are shown mounted on the ring member **16** between the legs **13***a*, **14***a* and **15***a*, respectively, the diameter of said cylindrical spacer members being approximately equal to one-half the difference in diameter between the shaft **12** and the ring **16**. In this manner, all peripheral portions of both the shaft **12** and the ring **16** are maintained in equidistant relationship at all times, while an equidistant relationship between the legs **13***a*, **14***a*, **15***a* is also assured by virtue of the uniform length of the spacer members **17**, **17**. (See Figure 4.)

As previously stated, the freely extending end of the shaft **12** terminates in a wreath supporting means **20** defined by an integral, upwardly presented, semi-circular cradle **21**, in which a wreath **22** or other floral display may be rested as shown in Figure 1.

To the end of minimizing lateral movement of the wreath **22** while the same is being supported in the cradle **21**, as just described, an integral extension **23** may be provided at right angles to the plane of said cradle, while further fastening means may be supplied in the form of a wire **24**, engageable over the wreath **22** as shown in Figure 1.

In use or operation of the improved device the user merely grasps the same by the cradle **21**, and, with legs pointing toward the ground, gives the device a sharp motion, thereby initiating movement of the legs from the position shown in Figure 2 to the position shown in Figure 3, whereupon the legs may be forced firmly into the ground and the wreath securely fastened to the stand as previously described. When it is desired to collapse the device to the position of Figure 2, the wreath is removed therefrom and the legs extracted from the ground, at which time inverting of the entire device will cause the same to retract to the collapsed position of Figure 2.

It will be seen from the foregoing that a relatively sturdy device has been provided for supporting floral wreaths wherein the principal support is provided by the bearing action of the legs on the shaft **12** and the respective apertures through which the various legs are slidingly receivable. It has also been shown how various fastening improvements may be incorporated into the device to present an overall floral wreath stand possessing utility, compactness, rigidity and resistance to the elements.

The adaptability of the device to use in allied fields is illustrated in Figure 6, wherein a music stand **30** is mounted on the free end of the shaft **12** in lieu of the wreath supporting means **20** that was shown in Figures 1–5. With the exception of the aforementioned change, all structural features of the two devices may be considered similar.

In Figure 7, a seat member **40** is substituted on the free end of the shaft **12** by a pivotal connection (not shown)

thereby forming a portable seat which employs the same collapsing mechanism as previously described in connection with Figures 1 to 5 inclusive.

It follows that other modifications of equally distinct nature, may be resorted to without deviating from the spirit of this invention or the scope of the appended claims.

What is claimed is:

1. A collapsing mechanism of the character described, comprising: a plate member having a plurality of apertures therethrough; a shaft having one end thereof affixed to said plate; a plurality of leg members slidingly receivable through said apertures and having ground engaging means on one end thereof, the opposite free ends of said leg members being provided with apertures therethrough; a ring member receivable through said apertures in said legs and being positioned in encircling relationship to said shaft, whereby the ringed ends of said legs may be uniformly moved with respect to said shaft; and rotatable spacer members mounted on said ring member between said leg members whereby said ring is spaced from said shaft.

2. A collapsible wreath stand of the character described, comprising: a plate member having a plurality of aperutres therethrough; a shaft having one end thereof affixed to said plate; a plurality of leg members slidingly receivable through said apertures and having ground engaging means on one end thereof, the opposite free ends of said leg members being provided with apertures therethrough; a ring member receivable through said apertures in said legs and being positioned in spaced encircling relationship to said shaft, whereby the ringed ends of said legs may be uniformly moved with respect to said shaft; rotatable spacer members mounted on said ring member bewteen said leg members; and wreath supporting means attached to the free end of said shaft.

3. A collapsible music stand of the character described, comprising: a plate member having a plurality of apertures therethrough; a shaft having one end thereof affixed to said plate; a plurality of leg members slidingly receivable through said apertures and having ground engaging means on one end thereof, the opposite free ends of said leg members being provided with apertures therethrough; a ring member receivable through said apertures in said legs and being positioned in spaced encircling relationship to said shaft, whereby the ringed ends of said legs may be uniformly moved with respect to said shaft; rotatable spacer members mounted on said ring member between said leg members; and music supporting means attached to the free end of said shaft.

4. A collapsible portable seat of the character described, comprising: a plate member having a plurality of apertures therethrough; a shaft having one end thereof affixed to said plate; a plurality of leg members slidingly receivable through said apertures and having ground engaging means on one end thereof, the opposite free ends of said leg members being provided with apertures therethrough; a ring member receivable through said apertures in said legs and being positioned in spaced encircling relationship to said shaft, whereby the ringed ends of said legs may be uniformly moved with respect to said shaft; rotatable spacer members mounted on said ring member between said leg members; and seat means attached to the free end of said shaft.

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