Nov. 24, 1953 E. W. MARSHALL ET AL 2,660,186

SHADE-PRODUCING APPARATUS

Filed May 2, 1950

FIG. 1

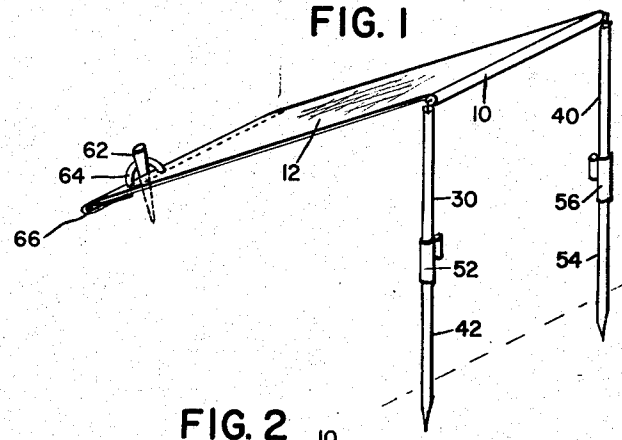


FIG. 4

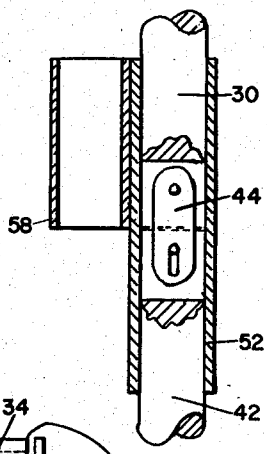


FIG. 2

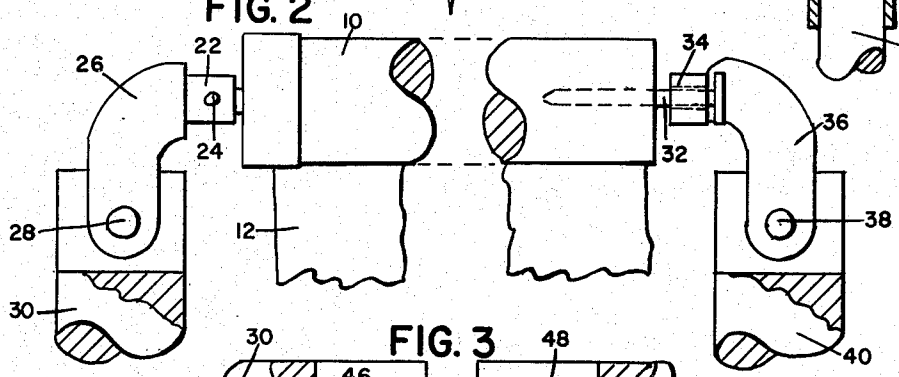


FIG. 3

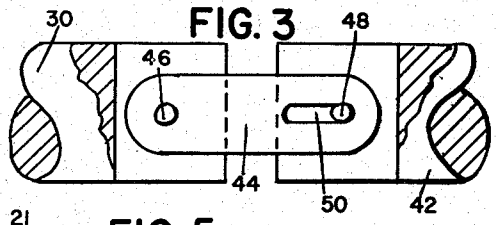
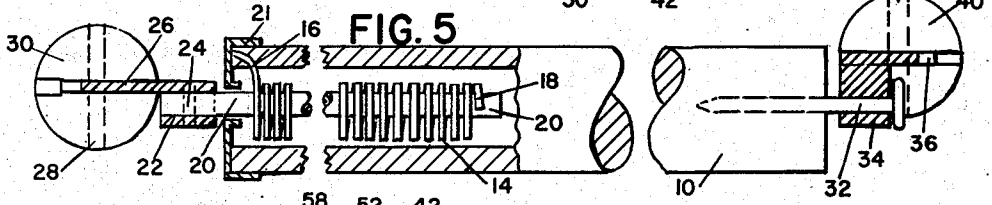


FIG. 5



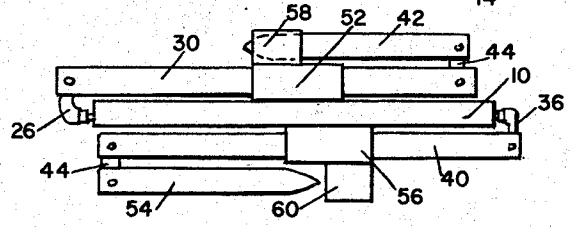


FIG. 6

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SHADE-PRODUCING APPARATUS

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2 Claims. (Cl. 135—5)

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This invention relates to apparatus for producing shade. In some locations, as on a beach, natural shade is not available and readily transportable means which can be easily and quickly set up to protect persons such as bathers, for example, from the sun is desirable.

Accordingly, an object of the invention is to provide inexpensive, light apparatus which can be readily carried and quickly erected to protect one from direct impact of the sun's actinic rays.

The illustrated apparatus comprises two poles which may be sectional and can be supported by driving their ends into the ground or sand. Between the upper ends of the poles is supported a roll on which is wound a piece of fabric which may be a piece of cotton sheeting, canvas, or, if greater opacity is desired, Holland cloth. This fabric is herein referred to as a shade. The roll contains a torsion spring which is attached at one end to the roll and at the other to a rod extending axially of the roll and serving as an axis about which it turns. The rod is held from rotation by being attached to a link member at one end, the link member being in length about half the diameter of the roll. The link member is pivoted at its opposite end in the upper end portion of one of the poles. The opposite end of the roll is supported by a headed stud rotatably mounted in a link member which is pivoted near the upper end of the second pole. With the roll thus supported at each end, the shade may be drawn out against the tension of the torsion spring and anchored to the ground either adjacent to the poles or at a distance therefrom. For example, the shade may have a tunnel in its free end in which is a stick carrying a loop of cord through which a stake may be driven to hold the shade extended.

In transportation, the poles are to be folded parallel to the roll and hence should not be substantially longer than the roll. Hence it is desirable to provide an extension for each pole so that when set up more "head room" will be provided. Accordingly, a pole extension about half the length of the roll is connected by a link to the lower end of each pole, the link enabling the extension to be arranged parallel to the pole or in axial alignment therewith. When the pole and its extension are abutted end to end, a sleeve sliding on the pole or the extension is slipped over the joint between them to form in effect a single rigid pole. Each sleeve may have secured to it a second shorter sleeve which, after the extension is folded parallel to its pole, may be slipped over the end of the extension to hold it in place during transportation.

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The invention will be better understood from the following description when read in connection with the accompanying drawing and will be pointed out in the appended claims.

In the drawings—

Fig. 1 is a perspective view of the apparatus set up for use;

Fig. 2 is a front elevation, partly in section and partly broken away, of the roll and the means for connecting it to the poles;

Fig. 3 is a detail, partly in section, of the joint between one of the poles and its extension;

Fig. 4 is a detail view, partly in section, of one of the poles and its extension in set-up position;

Fig. 5 is a plan view, partly in section and partly broken away, of the roll showing the connections of the torsion spring, the shade being omitted; and

Fig. 6 is a view showing the various members folded together and ready to be strapped up for carrying.

In the drawing, 10 is a roll carrying a shade 12. The roll may be similar to that of a window shade having the usual torsion spring 14 (Fig. 5) tending to wind the shade up. A centrifugal pawl (not shown) may be provided to hold the roll from rotation when unwinding ceases, but that is unnecessary. One end 16 of the spring 14 is connected to the roll 10 and the other end is connected to a rod 20 located centrally of the spring. The rod passes through a cap 21 on the end of the roll and forms the axis of the roll at that end. The projecting end of the rod 20 is inserted in a sleeve 22 where it is held from rotation or withdrawal by a pin 24.

The sleeve 22 is secured to or formed on a link member 26 pivoted at 28 in a kerf sawed in the upper end of a pole 30. At the other end the roll carries a headed stud rotatably mounted in a sleeve 34 on a link member 36, similar to 26 and similarly pivoted at 38 near the upper end of a pole 40. The poles 30 and 40 are preferably about the length of the roll 10 so that when folded parallel to the roll about their pivots 28 and 38 (Fig. 6) they will not extend beyond the end of the roll. About three feet is a convenient length for the roll.

It is desirable, however, to have the poles longer to provide more head room and to allow for the part driven into the ground. Accordingly, a shorter pole extension 42 is connected by a link 44 (Fig. 3) to the pole 30, the link being pivoted at one end by a pin 46 in a kerf in the pole 30 and at the other end by a pin 48 in a kerf in the extension 42. A slot 50 in the link 44 for the pin 48 or for the pin 46 enables the end of

the extension **42** to be butted against the end of the pole **30**, whereupon a sleeve **52** (Fig. 4) may be slipped over the joint between the pole **30** and the extension **42** to hold them rigidly in axial alignment so as to form in effect a single pole. The pole **40** has a similar extension **54** connected to it by a link **44** and carries a sleeve **56** similar to **52**. The sleeves **52**, **56** may be held frictionally in operative position.

The slots **50** in the links **44** allow enough endwise separation of the extensions from the poles to allow the extensions to be folded alongside of the poles, as shown in Fig. 6. The sleeve **52** has secured to it a short sleeve **58** which may be slipped over the extension **42** to hold it in place when folded and the sleeve **56** has a shorter sleeve **60** to be slipped over the extension **54**. The whole apparatus may then be rolled up and secured with a strap or the like for transportation.

In setting up the apparatus, it may be laid on the ground, the poles **30**, **40** placed at right angles to the roll **10**, and the extensions **42**, **54** released by sliding the sleeves **58**, **60** off them. The extensions **42**, **54** may then be brought into alignment and abutting relation respectively to the poles **30**, **40**, and the sleeve **52**, **56** slid over the joints to hold them rigid. The poles with their extensions are then raised to vertical position and forced into the ground. The shade **12** is then unwound against the tension of the spring **14** and secured to the ground by driving a stake **62** through a loop **64** attached to a stick **66** located in a tunnel formed in the end of the shade.

Having described the invention, what is claimed is:

1. Apparatus for producing shade comprising a pair of pointed poles adapted to be thrust into the ground, a roll, a sheet of fabric wound upon the roll, a link member pivoted to the top portion of each pole, said link members supporting journals for the roll and permitting the poles to be disposed parallel to the roll, each pole comprising a pointed extension linked thereto to permit disposal of the extension parallel to the pole, and a sleeve sliding on the pole and movable over the joint between the pole and the extension to produce a single rigid pole.

2. Apparatus for producing shade comprising a pair of poles adapted to be thrust into the ground, a roll, a sheet of fabric wound upon the roll, a link member pivoted to the top portion of each pole, said links supporting journals for the roll and permitting the poles to be disposed parallel to the roll, each pole having an extension linked thereto to permit disposal of the extension parallel to the pole, and a sleeve sliding on the pole and movable over the joint between the pole and the extension to produce a single rigid pole, each of said sleeves carrying another sleeve which, when the extension by reason of its linkage is turned parallel to the pole, can be slid over the extension to retain it in folded position.

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