Nov. 20, 1956 L. E. SIMONSON 2,771,087

PORTABLE SCREEN

Filed Sept. 28, 1953

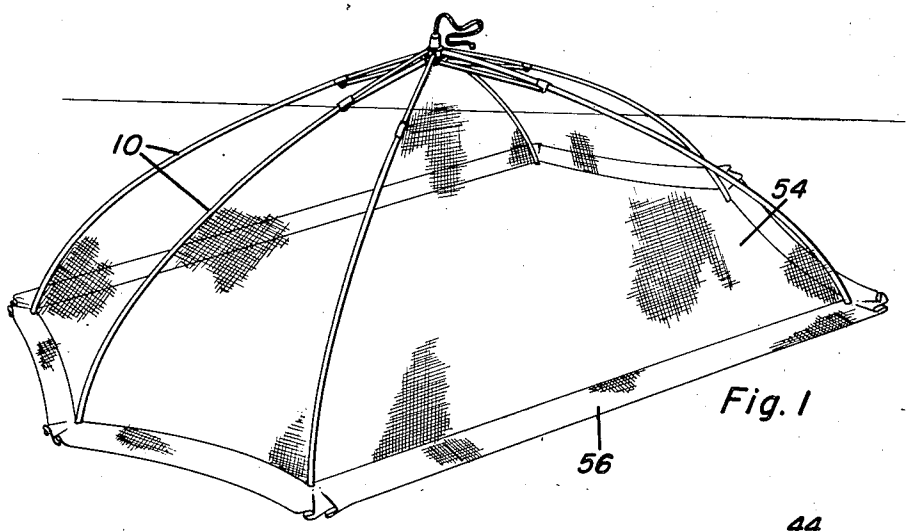


Fig. 1

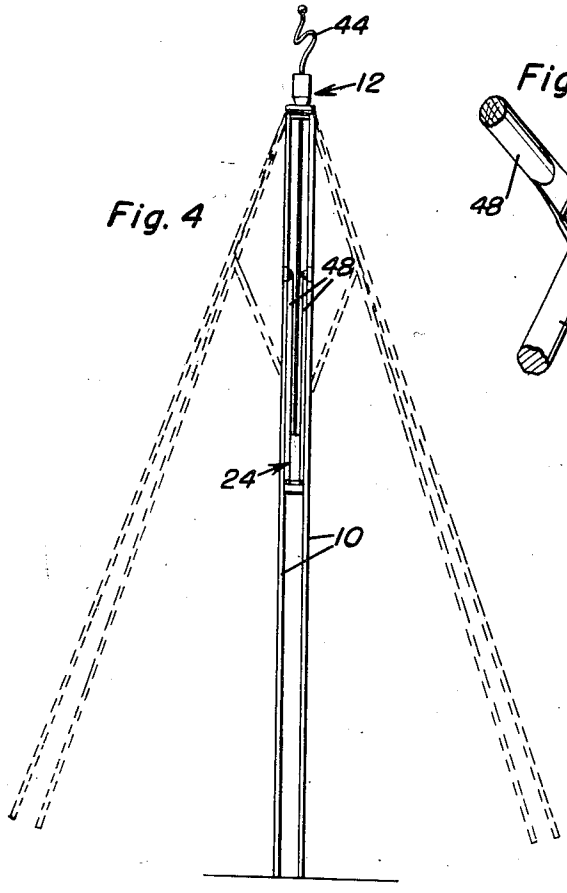


Fig. 4

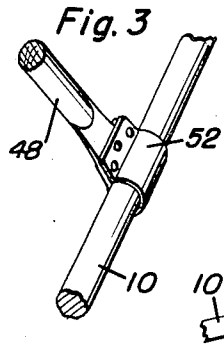


Fig. 3

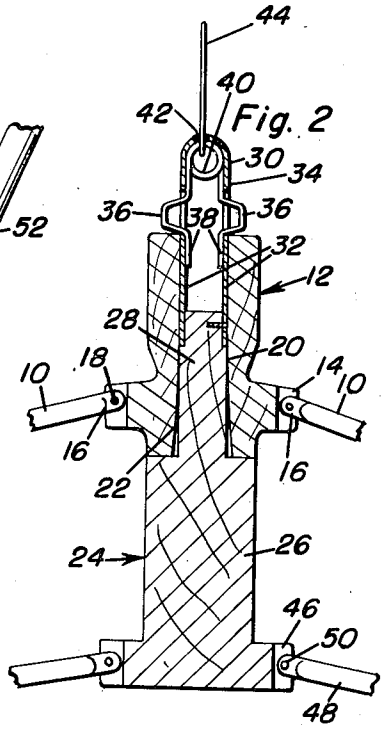


Fig. 2

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United States Patent Office 2,771,087
Patented Nov. 20, 1956

2,771,087

PORTABLE SCREEN

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Application September 28, 1953, Serial No. 382,592

2 Claims. (Cl. 135—4)

This invention relates generally to portable shelters and pertains more particularly to a new form of covering small infants during rest periods both in and outside of houses, and pertains likewise to an improved form of portable screen particularly adapted for use by adults in outdoor camping and the like.

A primary object of this invention is to provide an improved form of portable screen which is simple yet sturdy and efficient in construction and which presents a unitary structure capable of being erected in a minimum of time with a minimum of effort while at the same time being easily transportable.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the invention in erected position;

Figure 2 is a vertical section taken through the central portion of the assembly shown in Figure 1 showing details of the locking and securing mechanism on enlarged scale;

Figure 3 is a perspective view on enlarged scale showing the connection between the main pole members and their brace members; and

Figure 4 is an elevational view showing the assembly in collapsed position and showing the assembly in partially erected position in dotted lines.

Referring now more particularly to the drawings, reference numeral **10** indicates the bow members or ribs which, as will be noted from a study of Figure 4, are initially straight and are pivotally secured at their upper ends to a ridge piece indicated generally by the reference character **12**.

As seen most clearly in Figure 2, the ridge piece **12** is of generally cylindrical configuration having pairs of circumferentially spaced ears **14** between which the free ends **16** of the members **10** are received and are secured thereto as by the pin member **18**. The member **12** is provided with a longitudinal bore **20** which is outwardly flared at its lower end as indicated by the reference character **22** for a purpose presently apparent.

A latching block indicated generally by the reference character **24** comprises a main body portion **26** and an upper cylindrical end portion **28** receivable within the bore **20** of the member **12** and which carries a generally cylindrical cap member **30** which is attached at its open end **32** to the upper end of the portion **28**. An intermediate portion of cap member **30** is slotted as indicated by the reference character **34** and loop portions **36** of a spring member are selectively projectible therethrough, these loop portions being disposed at intermediate points along the leg portion **38** of the spring which is provided in its bight portion with a coil **40** for imparting the proper resiliency thereto. The top of the cap **30** is apertured

as at **42** and a flexible element **44** projects therethrough and is secured to the bight coil **40** in the spring, in the manner shown.

The block **26** is provided at its lower end with a plurality of spaced ears **46** which pivotally receive the inner ends of brace members **48** as by the pins **50**, the opposite ends of the brace members being secured to the clamp brackets **52** which are secured to the bow members **10** in the manner shown most clearly in Figure 3.

As seen most clearly in Figure 1, the entire assembly is provided with a covering of foraminous screening **54**, the screening being securely fastened throughout the lengths of the bow members **10** and being provided at its lower end coterminous with the lower ends of the bows **10** with a reenforced marginal portion **56** which also acts as a flap for loosely engaging the ground surface in the manner shown.

In operation, it will be appreciated the assembly is normally carried in a position shown in full lines in Figure 4 and when it is desired to erect the structure it is merely necessary to pull on the flexible element **44** such that the spring loop portions **36** are projected through the slot **34** in the cap **30** above the upper end of the member **12** in the manner shown in Figure 2 wherein the assembly is latched in the erected position such as that shown in Figure 1 wherein the bow members will be arched to stretch the screening **54** tightly in a protective fashion such that the area beneath the shelter may be maintained free of mosquitos or other similar insects. Of course, the marginal edge **56** of the screening material is also tightly stretched by the arching of the bows **10** and it is to be noted that the flared portion **22** of the bore **20** of the member **12** assists in urging the spring portions **36** together when the block **24** is first entered into the bore **20**.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A portable shelter comprising a plurality of resilient bows, a ridge piece, said bows being pivotally secured at one end to said ridge piece, a latching block, a plurality of brace members pivotally secured at opposite ends to said latching block and said bows respectively whereby the latching block is movable toward and away from the ridge piece to effect spreading and collapsing the bows respectively, said ridge piece having a bore therethrough, said latching block having a main body portion and an end portion of reduced diameter, said reduced end portion of the latching block being received in said bore with the main body thereof in engagement with said ridge piece, a cylindrical cap secured to said reduced end portion and projecting therefrom through said bore when the shelter is open, said cap having a closed free end and diametrically opposed slots in the longitudinal central portion thereof, a spring received in said cap, said spring having a coiled bight portion nested within the closed end of said cap and a pair of substantially parallel leg members, each provided with an offset projecting through one of said slots to overlie and engage upon the upper end of said ridge piece.

2. A portable shelter comprising a plurality of elongated resilient bows, a ridge piece, said bows being pivotally secured at one end to said ridge piece, a latching block, a plurality of brace members pivotally secured at opposite ends to said latching block and said bows respectively whereby the latching block is movable toward

and away from the ridge piece to effect spreading and collapsing of the bows respectively, means for securing said latching block at will to said ridge piece, and a covering of foraminous material secured to said bows, said ridge piece being provided with a longitudinal bore, said means including a reduced end portion on said latching block receivable within said bore, said means further including a cylindrical cap having its open end secured to said reduced end portion, said cap having opposed slots, and a spring carried within said cap and including portions projectible through said slots to engage the upper face of said ridge piece.

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