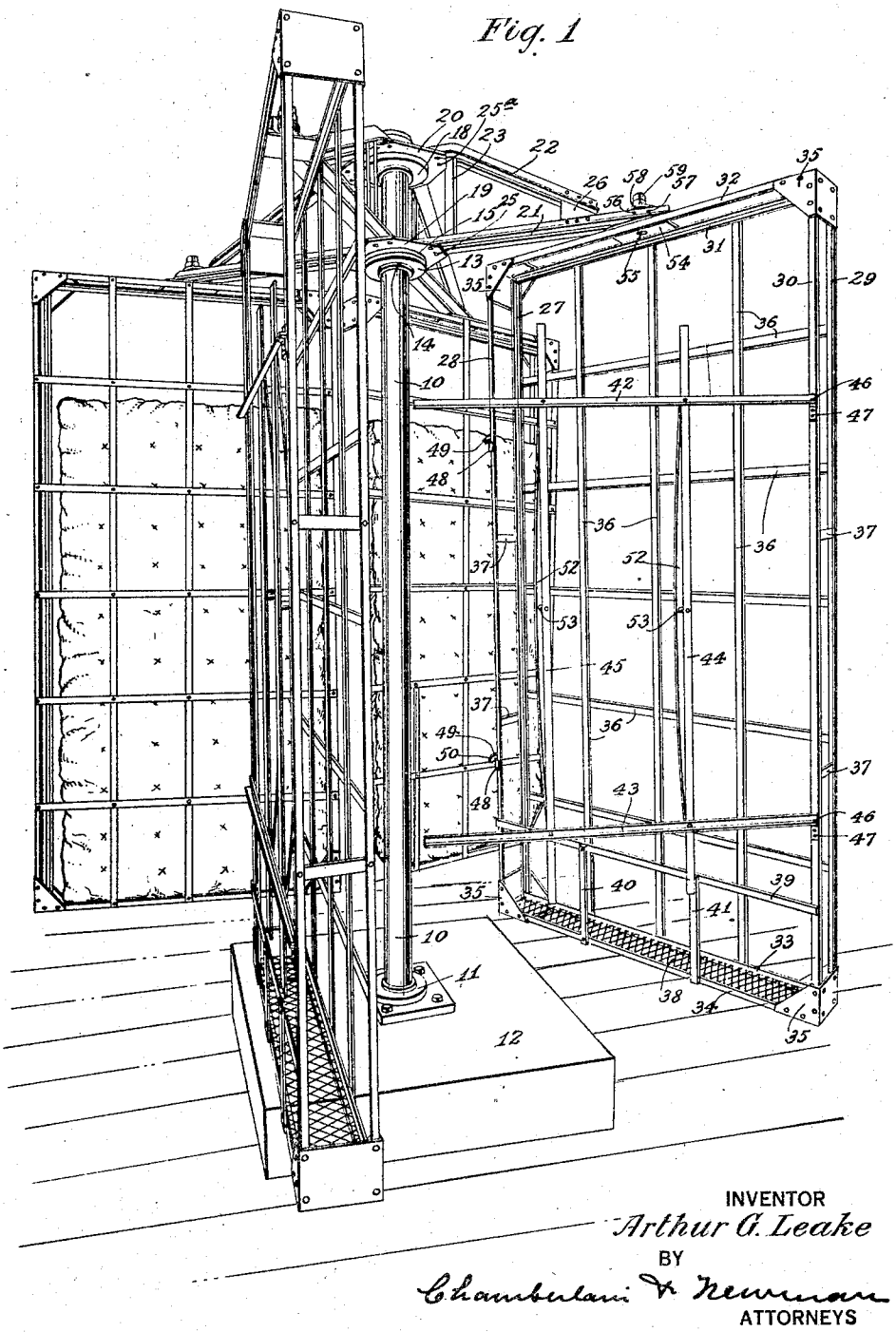
Nov. 24, 1925. 1,562,975

A. G. LEAKE

MATTRESS AIRING DEVICE

Filed Oct. 27, 1922 2 Sheets-Sheet 1

Fig. 1



INVENTOR

Arthur G. Leake

BY

Chamberlain & Newman

ATTORNEYS

Nov. 24, 1925. 1,562,975

A. G. LEAKE

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Filed Oct. 27, 1922 2 Sheets-Sheet 2

Fig. 2

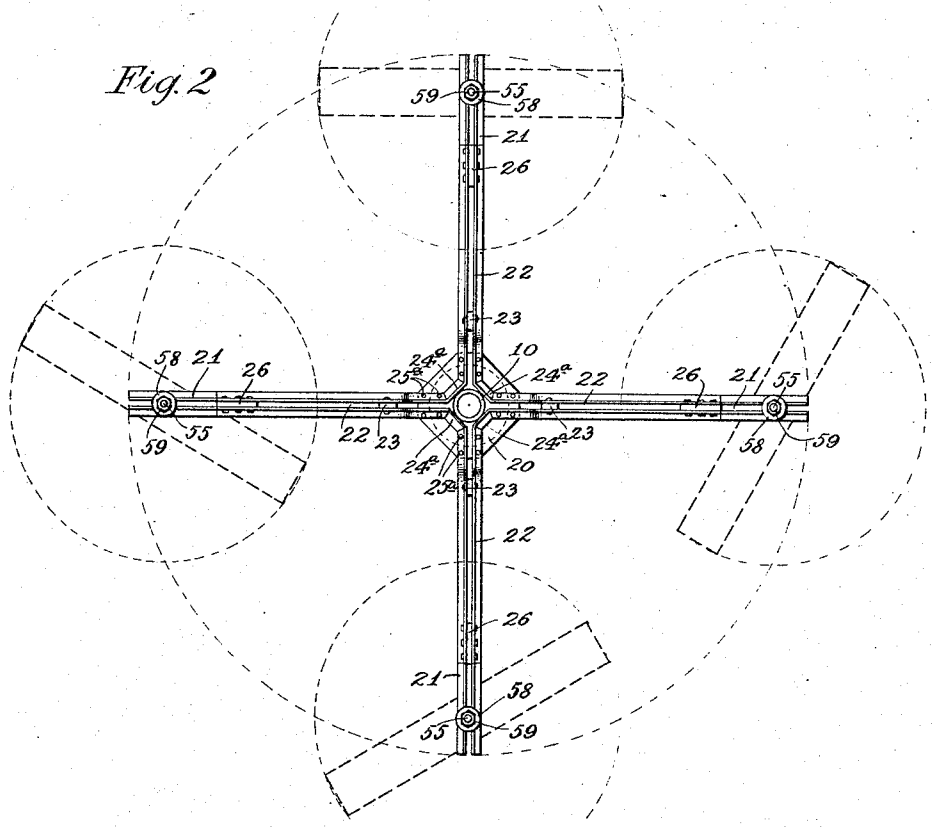
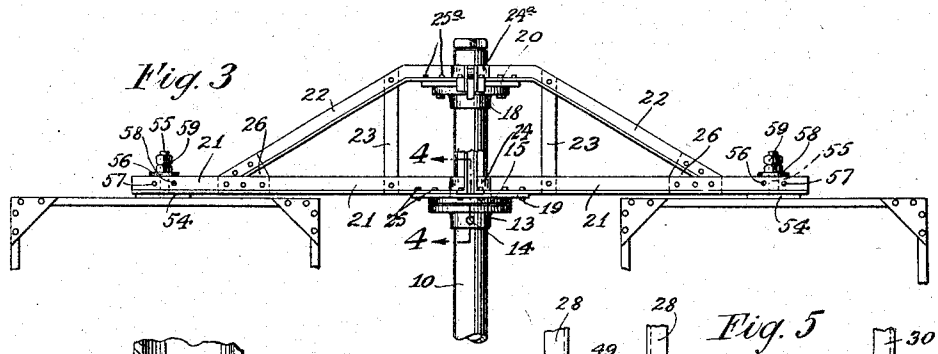


Fig. 3



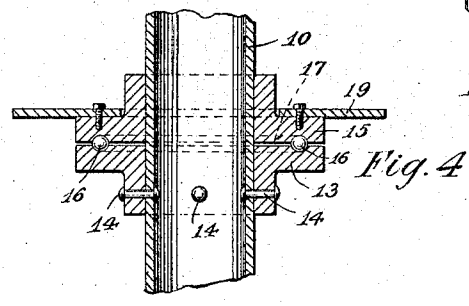


Fig. 4

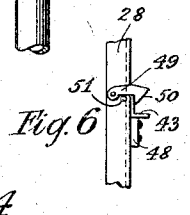


Fig. 6

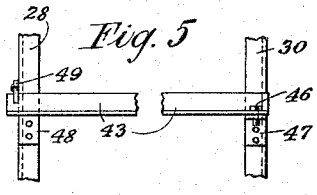


Fig. 5

INVENTOR
Arthur G. Leake
BY
Chamberlain & Newman
ATTORNEYS

Patented Nov. 24, 1925. 1,562,975

UNITED STATES PATENT OFFICE.

ARTHUR G. LEAKE, OF BRIDGEPORT, CONNECTICUT.

MATTRESS-AIRING DEVICE.

Application filed October 27, 1922. Serial No. 597,431.

To all whom it may concern:

Be it known that ARTHUR G. LEAKE, a citizen of the United States, and resident of Bridgeport, in the county of Fairfield and State of Connecticut, has invented certain new and useful Improvements in Mattress-Airing Devices, of which the following is a specification.

The present invention relates to an improved mattress airing device, and has for an object to provide such a device in which mattresses may be conveniently supported, in a manner to be thoroughly aired, being particularly adapted for use in hospitals, where it is desirable to frequently dry and air the mattresses of patients. It is proposed to provide a device of this character by means of which a plurality of mattresses may be simultaneously aired, and so constructed that a single attendant can place the mattresses therein or remove them conveniently. A further object is to provide a structure in which the action of the wind will serve to change the positions of the several mattresses carried therein, so that all sides thereof may be subjected to the full effect of the air and sun.

With the above and other objects in view, an embodiment of the invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto and the invention will be finally pointed out in the claims.

In the drawings:

Fig. 1 is a perspective view of an apparatus constructed in accordance with my invention, and showing two mattresses supported therein;

Fig. 2 is a plan view of the upper end of the apparatus, and showing the mattress supports in dotted lines;

Fig. 3 is a side elevation of the upper portion;

Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 3;

Fig. 5 is a detail front view of the hinge and latch structure for the closure frames of the mattress supports; and

Fig. 6 is a side view of the latch.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, the device comprises a central vertical post 10, rigidly mounted at 11 upon a base 12, and provided at its upper end with a flanged collar 13, secured by rivets 14, and rotatably supporting the flanged hub 15 of the rotatable mattress supporting frame, anti-friction balls 16 being interposed between the hub and collar in raceways 17, so that the frame will rotate freely and with the minimum of resistance.

The frame is supported upon the hub 15 and a second hub 18, the latter spaced above the hub 15 and rotatable upon the post; and consists of plates 19 and 20 secured to the respective hubs 15 and 18, four radially disposed arms 21 secured to the plate 19, and braces 22 secured between the plate 20 and the radial arms, vertical struts 23 being connected between the braces and the arms.

As clearly shown in Fig. 2 the arms each comprise a pair of parallel spaced angle bars, and preferably four right angle pieces are provided, the corner connecting portions 24 of which are secured by rivets 25 to the plate 19, the legs of each right angle piece forming a side of two adjacent arms 21. The braces are similarly formed, the right angle pieces having connecting corner portions 24^a, connected to the plate 20 by rivets 25^a. The connection pieces 26 between the braces and the arms serve to space the bars apart at the outer ends so that the arms 21 are thereby slotted.

The mattress containers supported upon the respective arms are of identical form, so that, for convenience, only one will be described in detail. This is of rectangular form, and consists of vertical parallel side bars 27, 28 and 29, 30 and horizontal parallel end bars 31, 32 and 33, 34 connected by corner brackets 35. At the rear a grid of vertically and horizontally arranged strips 36 is provided, and cross pieces 37 connect the vertical side bars at suitable intervals.

A wire mesh bottom 38 is provided between the lower end bars 33 and 34 to support the lower end of the mattresses and at the front end lower portion of the container a retaining frame is provided, comprising a horizontal strip 39 spaced in parallel relation from the bar 34, and a pair of vertical strips 40 and 41 extending between the strip 39 and the bar 33, and is adapted to support the lower portion of the mattress. The mattress is retained in place by a hinged frame at the front of the container, and which comprises a pair of horizontal angle bars 42 and 43 connected by vertical strips 44 and 45, the bars being hinged at

one end upon the vertical side bar 30 by means of pins 46 in the bars 42 and 43, rotatably engaged in angle brackets 47 secured to the bar 30, the other ends of the bars 42 and 43 adapted to rest upon lugs or cleats 48 secured to the vertical side bar 28, and being secured in place by pivoted latches 49 (Figs. 5 and 6). These latches are gravity actuated, having beveled camming edges 50, which serve to lift them as the hinged frame is swung closed. Stop pins 51 limit the downward movement of the latches.

Upon the inner sides of the strips 44 and 45 there are mounted elongated bowed strips 52 secured at their ends to the strips 44 and 45, and supported at their central portions by spacing members 53.

The containers are pivotally connected at their upper ends to the arms, and for this purpose are provided with a plate 54 connected centrally to the bars 31 and 32 and having an upwardly extending shaft 55 disposed in the space between the bars forming the arms, and positioned by transverse pins 56 and 57. A collar 58 provided on the shaft beneath lock nuts 59 rests upon the upper surface of the supporting arm and thereby supports the container. This construction enables the containers to have a limited swiveling movement and a free rotary movement.

In operation, the attendant inserts the lower end of the mattress in the lower end of the container behind the strips 39, 40 and 41, and thereupon swings the hinged closure frame into closed position, the latches 49 automatically falling into retaining relation. The pressure exerted upon the mattress by the bowed strips 52 secured retains the same in place, preventing it from slipping down in the container. The action of the wind upon the mattresses, which may be said to be in the nature of sails, causes the containers to be rotated about the central post 10, and at the same time swung about the swivel supports at the ends of the arms 21. All surfaces of the mattresses are subjected to the action of the air and sun and are therefore thoroughly aired and dried in a minimum of time.

If desired the containers may be hung upon an overhead trolley or track in place of the revolving arms.

I have illustrated and described a preferred and satisfactory embodiment of the invention, but it will be understood that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

I claim:—

1. In an airing device for mattresses and the like, a vertical support, a rotatable mattress supporting frame thereon, and a vertical mattress container rotatably suspended from said frame, said mattress container consisting of a rectangular grid-form adapted to surround the edges of a mattress and a grid-form rear side and a hinged grid-form front side adapted to support a mattress uprightly in said container, whereby a mattress can be easily placed into and removed from said container to be wholly exposed to air and sun, and can serve as a member in the nature of a sail adapted to cause the container to revolve on its own pivot and about said support by the action of breezes upon the mattress.

2. The combination as specified in claim 1, wherein the container is rotatably mounted to have limited swiveling movement upon the frame, for the purpose described.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 26th day of October, A. D. 1922.

ARTHUR G. LEAKE.