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BED.

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1,218,102.

Patented Mar. 6, 1917.

2 SHEETS—SHEET 1.

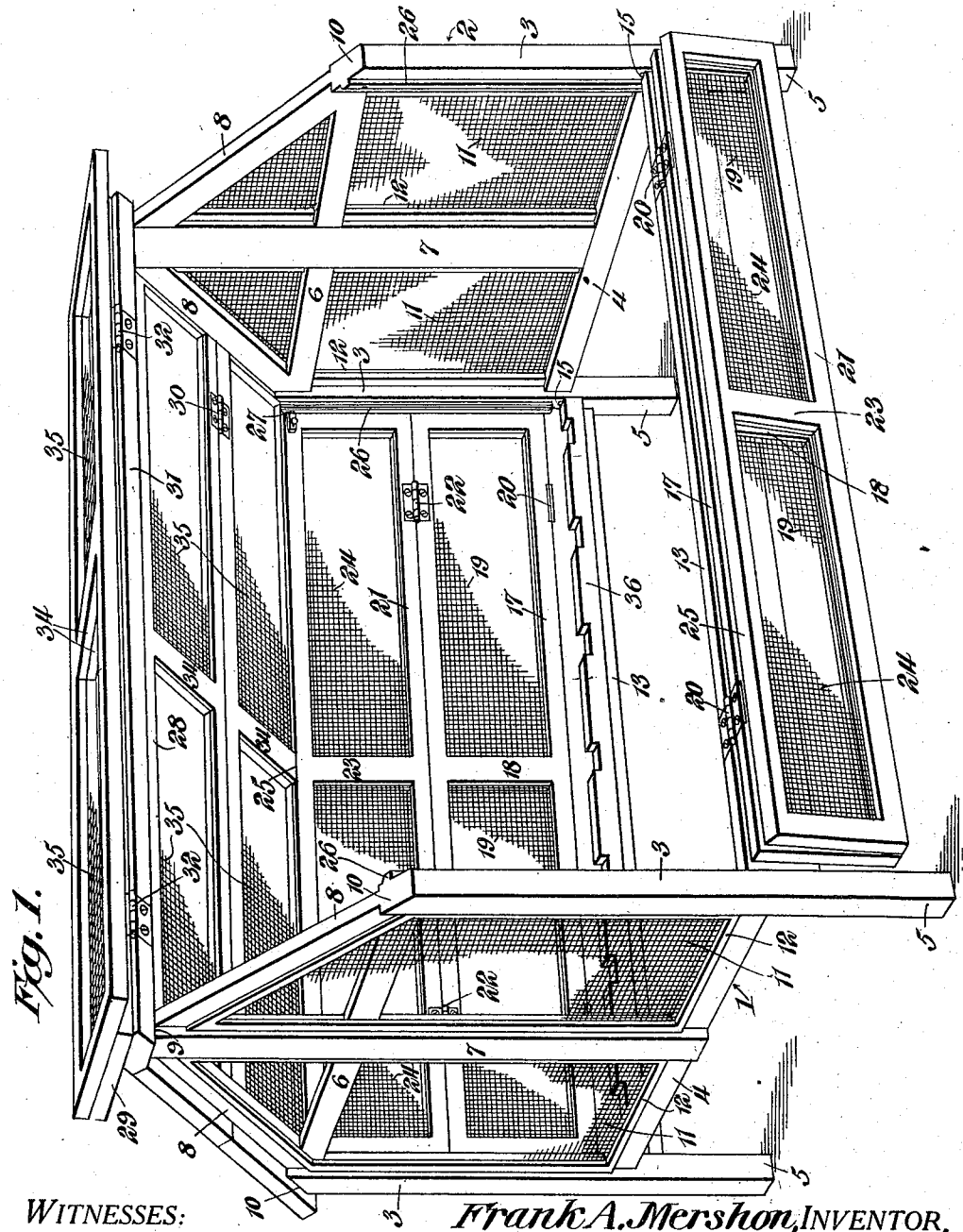


Fig. 1.

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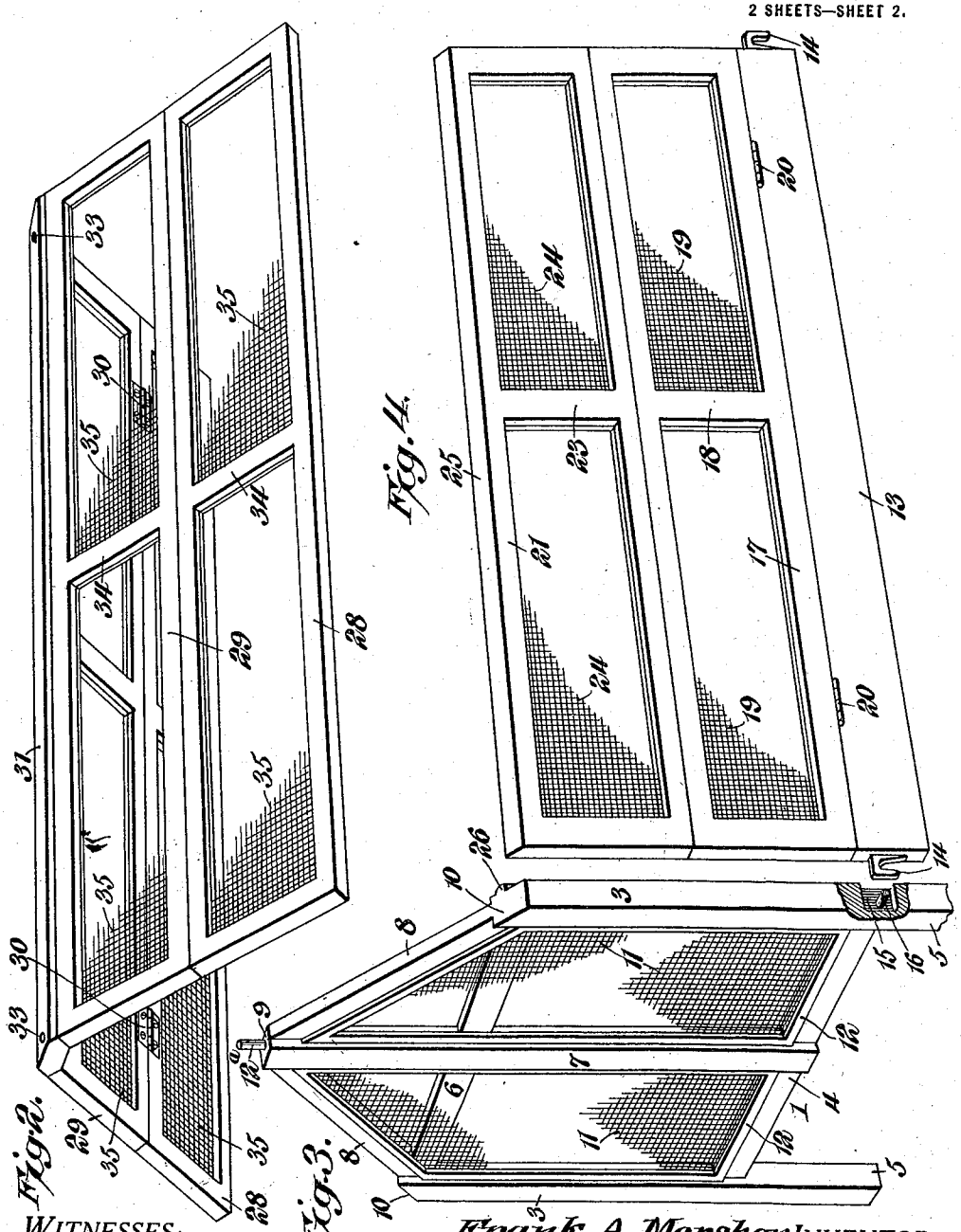


Fig. 4.

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, FRANK A. MERSHON, a citizen of the United States, residing at Red Hill, in the county of Albemarle and State of Virginia, have invented a new and useful Bed, of which the following is a specification.

This invention has reference to beds, and its object is to provide a bed whereby the occupant is fully protected from the attacks of insects in the same manner but to better effect than the protection afforded by a mosquito bar.

In accordance with the present invention there is provided a bed structure comprising head and foot boards which may be substantially identical and are made in skeleton form, so as to support panels of mesh structure such, for instance, as the woven wire structure known as fly netting. The head and foot boards are joined by side bars arranged to receive suitable springs for the support of a mattress and bedding. The head and side boards are formed with gable tops for the reception of screen frames hinged together to constitute a gable cover for the bed, while the side bars carry suitably hinged screen frames constituting the sides of the screen bed, whereby when the parts are all in proper position an occupant of the bed is inclosed by screen material, so as to be fully protected, but has ample room within the screen protection.

The bed structure is so arranged as to be readily assembled and dismantled, and when in the dismantled condition may be packed into small compass for storage or transportation. For this purpose the side screens and side bars are hinged together, and the top screen structure is made up of parts hinged together and readily applied to and removed from the head and foot boards from which the side bars are also readily removable.

The invention will be best understood from a consideration of the following detailed description, taken in connection with the accompanying drawings forming part of this specification, with the further understanding that while the drawings show a practical form of the invention, the latter is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications come within the scope of the appended claims.

In the drawings:—

Figure 1 is a perspective view of the assembled bed with one screen side let down and one side of the screen top folded upon itself out of the way to provide access to the interior of the bed.

Fig. 2 is a perspective view of the screen top alone.

Fig. 3 is a perspective view of one of the end members representing either the head or foot board.

Fig. 4 is a perspective view of one of the side bars and side screens.

In the drawings, there is shown a head board 1 and a foot board 2, but since these two members are substantially identical either may represent a head board or a foot board. For convenience of description the member 1 will be considered as the head board and the member 2 as the foot board, while a description of the specific structure of one will apply to the other and the same reference numerals are used indifferently in the head and foot boards for reference to like parts. Each head and foot board comprises a skeleton frame made up of side posts 3 upright in the installed position, and which at a suitable distance above the lower ends are joined by a tie bar 4, so that those portions of the posts 3 below the tie bar 4 constitute legs 5. The upper ends of the posts 3 are connected by another tie bar 6, while extending between and connecting the middle portions of the tie bars 4 and 6 and also rising above the tie bar 6 is an upright or king post 7. The upper ends of the posts 3 are connected to the upper end of the king post 7 by inclined strips 8 so that each head and foot board is of gable form at the upper end in the structure shown in the drawings. The top of the king post 7 is cut off flat, as indicated at 9, while the tops of the posts 3 are beveled, as shown at 10 in conformity with the slant of the corresponding strips 8. No attempt is made in the drawings to indicate that the various posts and tie bars and other such parts are made of separate pieces properly joined together, but it will be understood that in the practical construction of the bed the usual practice in building such structures is followed.

The spaces between the king post 7 and

side posts 3 define open panels conforming to the gable shape of the respective head or tail board, and these panels are covered with netting indicated at 11, the netting being held in place by beading strips 12 or in any other suitable way. To provide an enduring netting a woven wire netting is preferred, and this netting may be of any of the usual types known as fly screen material, and it is immaterial to the present invention whether such woven wire be of one kind or another, so long as the mesh is of sufficiently small size. Rising from the top of the king post 7 is a dowel pin 12^a to which reference will hereinafter be made.

There are also provided side bars 13 which may be similar to the side bars usually employed in bed structures, and these side bars each terminate at the ends in an arrangement for attaching the side bar to the head and foot boards. In the drawings the attaching arrangement is shown as comprising a bolt 14, at each end of the side bar 3, adapted to enter a recess 15 in the corresponding post 3 and engage a pin 16 within the recess 15. This arrangement is to be taken as indicative of any suitable connecting device, whereby the side bars may be securely fastened to the head and foot boards, but may also be readily disconnected therefrom. Each bar 13 connects and spaces the head and foot boards, and consequently each bar 13 is of a length corresponding to the distance between the head and foot boards in the assembled structure. Hinged to that edge of each bar 13 constituting the top edge of the assembled structure, is an elongated screen frame 17, which because of its length may have a suitable number of cross pieces strengthening it. In the drawings one such cross piece 18 is shown in the frame 17, thus dividing the interior of the frame into two panels, each of which is covered with suitable wire netting 19. The screen frame 17 is attached to the bar 13 by hinges 20, so that when the bed is assembled the screen frame 17 may be turned on its hinges into pendent relation to the bar 13 outside of the latter, or may be turned upright to extend above the bar in the upright plane of the bar. Hinged to that edge of the frame 17 remote from the bar 13 is another elongated frame 21 of the same length as the frame 17 and consequently of the same length as the bar 13. The frame 21 is connected to the frame 17 by hinges 22 so that the frame 21 will fold flat against the frame 17 with the faces of the two frames, directed toward the inside of the bed when the frames are upright, in the folded condition, facing each other. The frame 21, like the frame 17, has a middle piece 23 for strengthening purposes, and the interior of the frame is covered with wire netting 24. The side strip of the frame 21 remote from the frame 17 is beveled, as shown at 25. The total height of the two frames 17 and 21 when extended above the bar 13 is such that the beveled edge 25 coincides with the beveled ends 10 of the posts 3. The inner edges of the end portions of the frames 17 and 21 when extended into upright position abut backing strips 26 extended lengthwise of each post 3, and suitable fastening devices, such as bolts 27 or other means for the purpose, hold the side frames made up of the frames 17 and 21 in the upright position.

The top of the bed structure is covered by a roof made up of the elongated frames 28, 29 joined together by hinges 30, so as to hold one on the other. Each frame 29 is connected at the edge remote from the frame 28 to a ridge bar 31 by hinges 32. The frames 28 and 29 fold upon each other and turn upon the hinges 32, so that when in the folded condition they may be supported by the ridge bar 31. This ridge bar is long enough so as to rest on the flat ends 9 of the king posts 7 and at the ends the ridge bar has perforations or passages 33 therethrough for the reception of the dowel pins 12^a. With the ridge bar mounted on and connecting the upper ends of the head and foot boards the ends of the frames 28 and 29 rest upon and are supported by the upper edges of the slanting bars 8 and the beveled ends 10 of the posts 3, while the outer long edges of the frames 28 are then resting upon the beveled edges 25 of the frames 21.

The frames 28 and 29 are longer than the frames 17 and 21 and in the particular showing of the drawings the frame 28 is wider than the frame 29, this latter arrangement facilitating the folding of the roof structure into a small compass. The frames 28 and 29 have strengthening cross pieces 34 and the interior panels of the frames are covered with wire netting 35.

The bed structure illustrated in the drawings comprises five separable parts. There are a head board and a foot board, two side bars with the side screen frames permanently attached thereto, and a foldable screen roof frame with the parts thereof all permanently united. The side bars with the screen frames carried thereby are foldable into small compass and the roof screen frame is also foldable into small compass, so that the whole structure may in the dismantled condition be packed into a relatively small bundle for transportation.

When the bed is assembled the head and foot boards are joined by the side bars in the usual manner and the screen frames carried by the side bars may be folded upon each other in generally pendent relation to the respective side bars. The ridge bar 31 of the roof structure is placed upon the tops

of the king posts with the dowel pins extending into the holes 33 and the roof screen frames 28 and 29 may then be extended along the slanting top bars 8 to cover in the roof portion of the bed. When the bed is ready for occupancy one of the sectional hinged side frames may be lifted up into the upright position on the respective bar 13 and secured in place with the corresponding side screen member on the roof extended and slanting downwardly along the top bars 8 into engagement with the long bar of the frame 21 having the beveled edge 25.

In order to give the user of the bed ample room for getting into the bed one side member of the top may be folded upon itself and over the ridge bar 31, so as to rest thereupon while the side frame made up of the members 17 and 21 on the same side of the bed may still be in pendent position, or if not, may be moved into such pendent position to the corresponding side bar 13. Such relation of the parts is shown in Fig. 1 and the user of the bed has abundant space to get into the bed or even to make up the bed ready for occupancy. The interior of the bed structure is very roomy so that an occupant may sit up in the bed and in some of the larger structures may even stand up in the bed without liability of the occupant hitting his head on any part of the bed. Moreover, by letting down one side of the bed so as to be as low as, or lower than the top of the corresponding side bar 13, no impediment is offered to the occupant getting into or out of the bed. Even if the entire roof structure be in the lowered position, there is still abundance of room provided by the lowered side. When the user is in the bed the lowered side is readily raised and fastened into place and the raised portion of the cover is readily lowered into place, thus forming a complete closure proof against the entrance of such insects as are liable to disturb the user of the bed. By making the upper ends of the head and foot boards of gable form, such upper ends are readily united by a comparatively narrow ridge bar, and the connected screen frames in turn connected to the ridge bar lie flat against the slanting edges of the gable ends because they are in semi-pendent position. Moreover, the gable form provides ample head room without making the head and foot boards inordinately bulky, as would be the case if the corner posts of the head and foot boards were carried to the same height as the king posts. The gable form also permits the employment of side screens of less height than would be necessary if the head and foot boards were finished off square on top and the same head room were provided as is provided by the gable form.

It is to be understood that the bed structure of the present invention is intended for full sized beds whether of single, three-quarter or double width.

By providing hinges connecting the side screens together and to the bars 13 of a character that move somewhat stiffly, special fastening devices are not needed to hold the side screens in the upright position, but it will be found advantageous to have such fastening devices, which may be located as indicated, or in any other convenient position.

The screen bed of the present invention has advantages in providing a roomy structure which may be made of sufficiently light weight to be readily handled, and which is separable into but a few parts, and yet is capable of being packed in a very small space and readily extended and assembled.

The showing of the drawings is that of a bed made of wood, but it will be understood that the bed may be made of metal throughout. Since the bed is indicated in the drawings as a wooden bed, the side bars 13 are provided with slat rails 36, but it will be understood that provision may be made for the use of metal frame wire springs, if so desired.

What is claimed is:—

1. A screen bed comprising head and foot boards with gable upper ends, side bars joining the head and foot boards, a ridge bar joining the peaks of the gable ends, screen frames hinged together and to the side bars and foldable one upon the other and against the side bars, said screen frames when extended reaching from the tops of the side bars to the lower ends of the gable tops of the head and foot boards, and pairs of screen frames hinged together and to respective opposite edges of the ridge bar, each of the pairs of screen frames hinged to the ridge bar being foldable together and on to the top of the ridge bar and when unfolded reaching from said ridge bar to and over the upper edges of the unfolded upstanding side screens whereby either or both sides of the bed may be wholly exposed to access from the side bar to the ridge bar.

2. A screen bed comprising head and foot boards with gable upper ends, side bars joining the head and foot boards and readily removable therefrom, a ridge bar joining the peaks of the gable ends, pairs of screen frames with the frames of each pair hinged together and each pair hinged to a respective one of the opposite sides of the ridge bar, and the ridge bar and pairs of frames hinged thereto being readily applicable to and removable from the tops of the gable ends, and other pairs of screen frames with the frames of each pair hinged together and to a respective side bar, said last-named pairs of screen frames being foldable together and against the outer faces of the side bars and reaching when extended to

the lower edges of the gable ends of the head and foot boards, the first-named pairs of screen frames when unfolded reaching from the ridge bar to the lower edges of the gable ends of the head and foot boards in overlying relation to the extended side frames.

3. In a screen bed provided with head and foot boards and side screens, a top structure comprising a ridge bar connecting the top of the head and foot boards, and foldable screen frames hinged to opposite sides of the ridge bar, each foldable screen frame having its parts foldable upon itself and on to the ridge bar to lie, when folded, on the opposite side of the ridge bar from the side of the latter to which it is hinged.

4. A screen bed provided with head and foot boards, sides each formed of screen frames foldable together and away from the top of the bed, and other foldable screen frames and a ridge bar constituting the top of the bed with the last-named screen frames foldable together and movable on to the ridge bar in a direction away from the sides of the bed, whereby either side of the bed may be completely opened to the ridge bar by a person either within or outside of the bed.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK ANDERSON MERSHON.

Witnesses:

E. B. PERRY,

GUY F. DIA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."