S. A. MILLER.

FOLDING BED.

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1,276,094.

Patented Aug. 20, 1918.

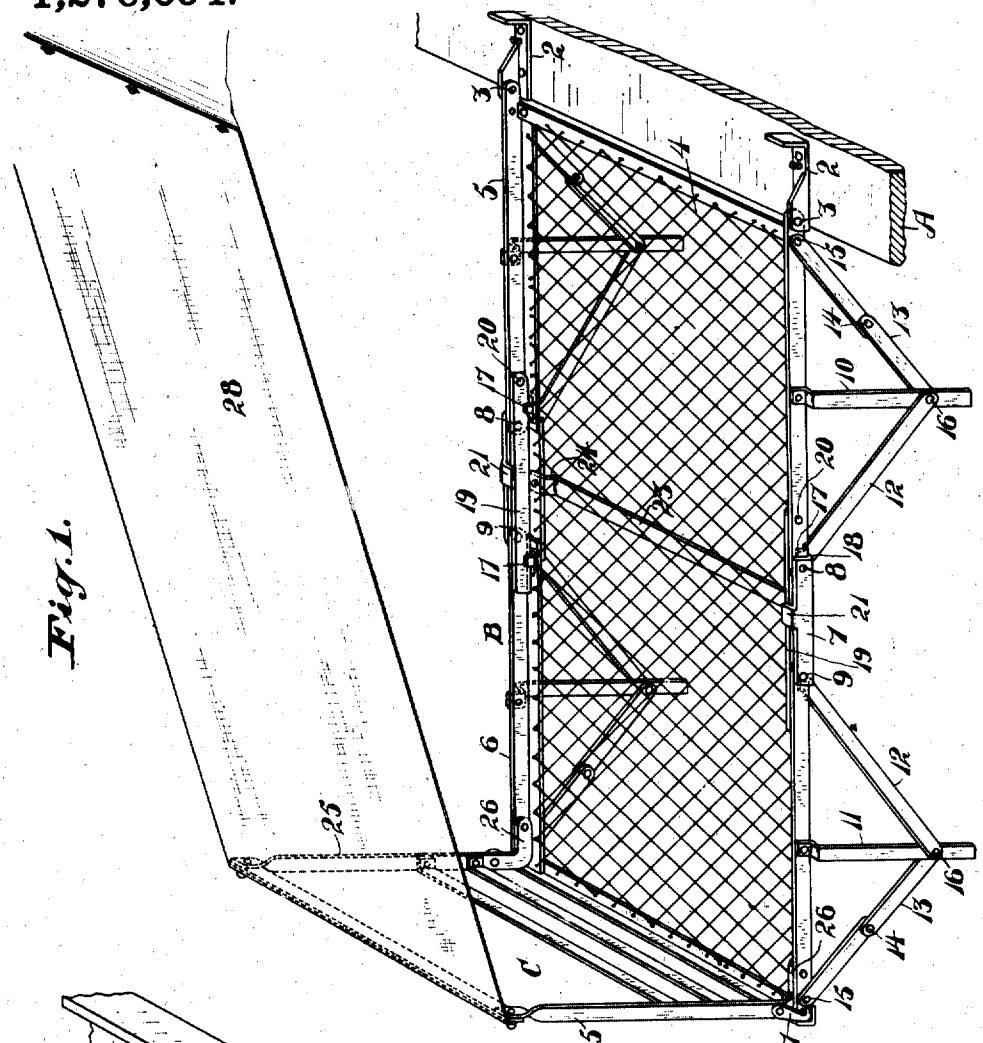


Fig. 1.

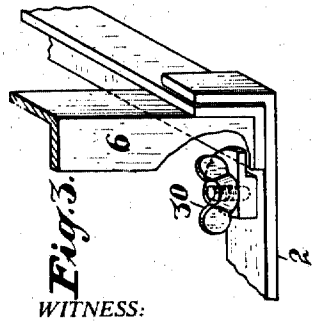


Fig. 3.

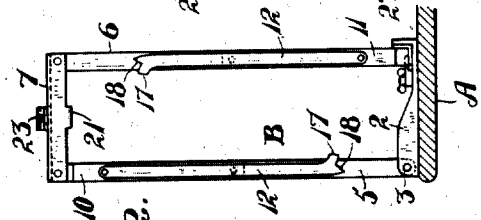


Fig. 2.

WITNESS:

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FOLDING BED.

1,276,094. Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed September 24, 1917. Serial No. 192,887.

To all whom it may concern:

Be it known that I, SIGFRID A. MILLER, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Folding Beds, of which the following is a specification.

This invention relates to a folding bed.

One of the objects of the present invention is to provide a simple, substantial folding bed for automobiles and the like which is adapted to be mounted on the running-board in such a position that it may be extended outwardly when used or folded up into a compact unit when traveling. Another object of the invention is to provide a folding bed frame of novel construction for the reception of a mattress and bedding, and in conjunction therewith a canopy support which permits the bed to be entirely inclosed. Further objects will hereinafter appear.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the bed.

Fig. 2 is a side elevation, showing the bed in folded position upon the running-board of an automobile.

Fig. 3 is a detail view of the center section of the bed-frame, together with the locking bar employed in connection therewith.

Referring to the drawings in detail, A indicates the running-board of an automobile and 2 a pair of brackets secured thereto, and pivotally mounted, as at 3, in said brackets is a bed frame, generally indicated at B, in which is mounted a wire mattress 4.

The bed-frame consists of an inner section 5, an outer section 6, and an intermediate section 7, the inner section being pivotally attached to the brackets 2, as at 3, while the intermediate section forms a pivotal connection between the inner and outer sections of the bed-frame, as shown at 8 and 9. The frame as a whole is preferably constructed of angle iron, and a pair of supporting legs are employed in connection with each frame section shown at 10 and 11. These legs are adapted to be folded with relation to the frame and are also adapted to be locked, when extended, by means of a brace 12 and a toggle lever 13. The toggle lever consists of two sections pivotally connected, as at 14, one section being in turn pivotally connected, as at 15, to the bed-frame while the opposite section is pivotally connected, as at 16, to the leg; the pivotal connection 16 also serving to secure the brace 12 which locks the leg in the extended position.

The upper end of the brace 12 is provided with an extending lug 17, which is adapted to pass through a slot in the frame and is also provided with a shoulder 18 which engages the lower side of the intermediate frame section 7. The legs 10 and 11 are similarly constructed and may be folded into parallel position with their respective frame sections or extended, as shown in Fig. 1. The lugs 17, on the locking brace 12, when the legs are extended, are inserted in the slots for their reception and they are secured in this position by extending the toggle levers 13, as shown in Fig. 1. A rigid brace is in this manner formed for each pair of supporting legs and a support is at the same time provided by means of shoulders 18 for the intermediate frame section 7. This intermediate section is further braced against pivotal or yielding movement, when extended, by means of a locking bar 19. There are two of these bars provided, one on each side of the frame and they are both pivotally attached to the inner frame 5, as at 20. Formed on the intermediate frame section are inwardly turned lugs 21. These lugs are provided for the reception of the bars 19 which, when folded down into the position shown in Fig. 1, are passed under the lugs 21. The bars, when in this position, lie between the lugs 17 of the braces 12 and the sides of the frames and in this manner not only serve as a locking bar to reinforce the intermediate frame section against movement about the pivots 8 and 9 but they also serve as bars to brace the frame sections against lateral movement.

The intermediate frame 7 consists of two angle bars which are rigidly connected by a cross bar 23 and as this bar is offset at each end, as shown at 24, it can readily be seen that it will not interfere with the wire mattress even though it should yield or sag to a considerable extent.

The bed-frame is provided with a foot frame, generally indicated at C. This frame consists of connected uprights 25 of suitable height. The lower ends of these up-

rights are bent to form knees 26, and each bar is provided with a latch 27 which is adapted to lock the foot frame in the vertical position shown in Fig. 1. The knee-shaped ends of the end bars forming said frame form a substantial support for the frame as a whole, and as the slots on the latches may be slightly inclined, it can readily be seen that the foot frame may be rigidly locked when raised. The knee structure of the bars 25, furthermore, permits the foot frame to be folded on top of the bedding and thereby serves as a retainer or clamp for the mattress and bedding employed. The foot frame is provided for the usual purpose and also as a support for a canvas covering or canopy, generally shown at 28. The inner ends of this canopy may be suitably secured to the automobile top while the outer end is hung over the foot frame. Side sections may also be provided, if desired, thereby permitting the bed as a whole to be entirely inclosed when extended.

With the bed extended, the operation of folding it into position upon the running-board is accomplished as follows: The canopy may first be removed and folded on top of the bedding or otherwise disposed of. The foot frame C is then folded down over the bedding by releasing the latches 27. The outer supporting legs 11 are then folded up against the outer frame 6 by breaking the toggle brace 13. This permits lug 17 on the brace 12 to be removed from its slot and the leg structure as a whole to be folded parallel with the frame 6. This frame, together with the intermediate frame, is then swung about the pivots 8 and 9 after the locking bars 19 have been released on top of the frame section 5 which is now only supported by the legs 10. These may in turn be folded and the bed is swung into the vertical position shown in Fig. 2 upon the running-board. It is here rigidly secured by a pair of clamping screws 30, or any other similar means, and the frame may then be covered by the canopy, if desired, or another cover especially made for the purpose. The metal parts of the bed-frame are thus kept out of contact with the varnished sides of the automobile and the bed is protected from dust or rain while traveling.

The locking bars 19 provided, together with the braces 12, render the construction of the bed-frame simple and rigid. The construction and manipulation of said bars are, furthermore, so simple that the bed may be quickly extended or folded practically by anyone, as the weight of the several parts forming the frame is comparatively small.

The materials and finish of the several parts of the device may be such as the experience and judgment of the manufacturer may dictate.

I also wish it understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims and that I do not wish to limit myself to the specific design and construction here shown.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A folding bed comprising a mattress frame consisting of an intermediate section and a pair of pivotally connected main sections, said intermediate section and main sections being constructed of angle iron, a continuous, flexible wire mattress carried by the intermediate and the main sections, a pair of locking bars pivotally mounted on the inside of the angle iron frame of one of the main sections, said bars adapted to swing in a vertical arc to lie on top of the intermediate section and the other main section, and a pair of inwardly turned lugs on the main intermediate section under which the bars are adapted to lie when they are folded over the intermediate and the other main section, said lugs adapted to hold the bars in position and secure same against vertical movement when the bed frame sections assume a horizontal plane.

2. A folding bed comprising a frame consisting of an intermediate section and a pair of pivotally connected main sections, one at each end thereof, a wire mattress carried by the intermediate and main sections, a pair of locking bars, one on each side of the frame, adapted to be interlocked with relation to the intermediate section and the main sections, said bars being pivotally attached one on each side of one of the main frame sections to permit them to be folded vertically down over the intermediate frame and the other main frame, and lugs on the intermediate frame adapted to engage the bars and secure the same when in locking position against vertical movement about their pivots.

3. A folding bed comprising a frame consisting of an intermediate section and a pair of pivotally connected main sections, one at each end thereof, a wire mattress carried by the intermediate and main sections, a pair of locking bars, one on each side of the frame, adapted to be interlocked with relation to the intermediate section and the main sections, a pair of folding legs carried by each main section, a toggle link connected with each leg, a brace connected with each leg, an upwardly extending lug on each brace adapted to enter slots formed in the main frame sections, and a shoulder on each brace adapted to engage the under side of the intermediate frame.

4. A folding bed comprising a frame consisting of an intermediate section and a pair of pivotally connected main sections, one at each end thereof, a wire mattress car-

ried by the intermediate and main sections, a pair of locking bars, one on each side of the frame, adapted to be interlocked with relation to the intermediate section and the main sections, said bars being pivotally attached to one of the main frame sections to permit them to be folded down over the intermediate frame and the other main frame, lugs on the intermediate frame adapted to engage the bars and secure the same when in locking position, a pair of folding legs carried by each main section, a toggle link connected with each leg, a brace connected with each leg, an upwardly extending lug on each brace adapted to enter slots formed in the main frame sections, and a shoulder on each brace adapted to engage the under side of the intermediate frame.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

SIGFRID A. MILLER.

Witnesses:
JOHN H. HERRING,
W. W. HEALEY.