F. S. BERTA.

FOLDING BED.

APPLICATION FILED MAY 14, 1919.

1,367,173. Patented Feb. 1, 1921.

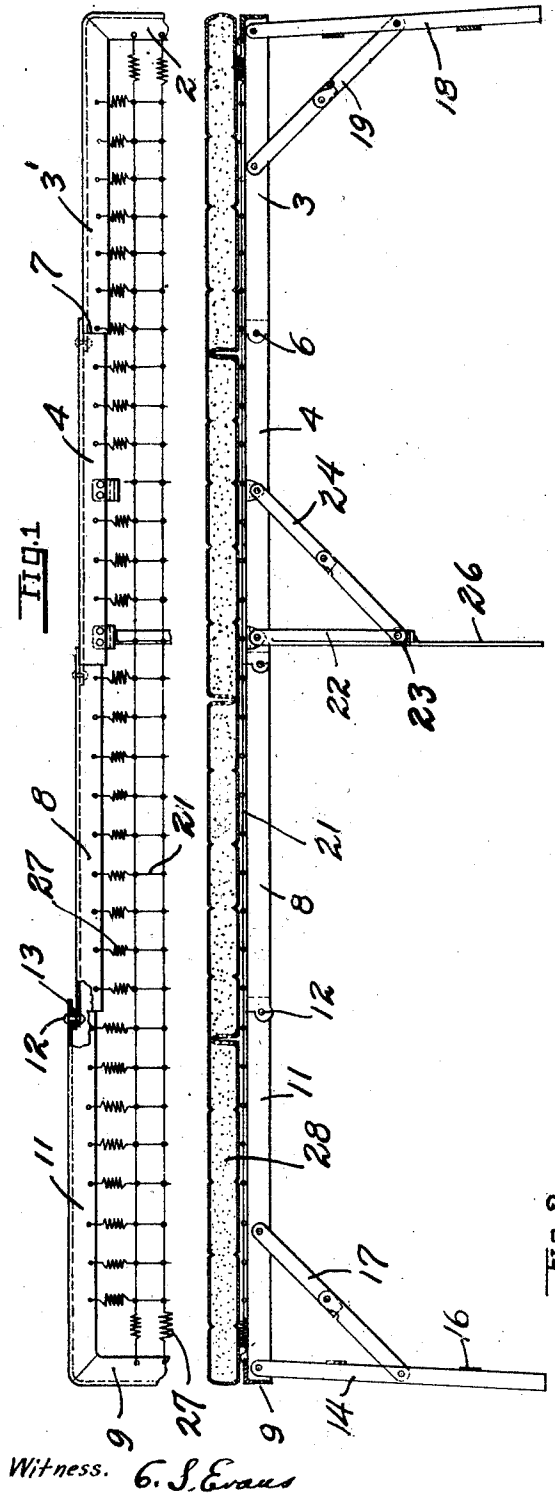


Fig. 1

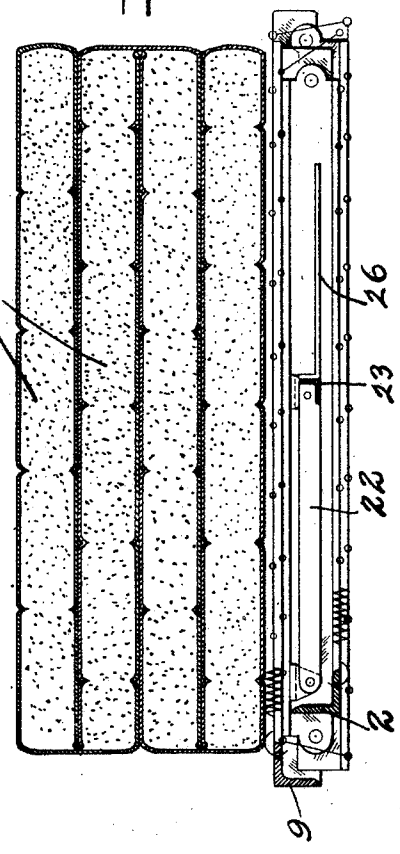


Fig. 3

Fig. 2

Witness. G. S. Evans

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UNITED STATES PATENT OFFICE.

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FOLDING BED.

1,367,173. Specification of Letters Patent. Patented Feb. 1, 1921.

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To all whom it may concern:

Be it known that I, FELIX S. BERTA, a citizen of the United States, and a resident of the city and county of San Francisco and State of California, have invented a new and useful Folding Bed, of which the following is a specification.

My invention relates to folding beds, and an object of the invention is to provide a bed frame capable of being folded together so that it and the folded mattress may be substituted for the upholstered seat of an automobile in camping trips or similar outings.

The invention posseses other features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of my invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood that I do not limit myself to the showing made by the said drawings and description, as I may adopt variations of the preferred form within the scope of my invention as set forth in the claims.

Referring to the drawings:

Figure 1 is a plan view of a portion of the bed frame when unfolded for use.

Fig. 2 is a vertical sectional view taken in a plane passing longitudinally through the unfolded bed.

Fig. 3 is a vertical sectional view taken in a plane passing longitudinally of the bed through the folded bed.

On automobile outing trips when it is desired to spend the night in the open, the problem of suitable beds has been a difficult one. It is one of the objects of my invention to provide such a bed, which for the purpose of the trip may be substituted for the automobile seat, the folded mattress being superposed upon the folded bed frame which lies in the place normally occupied by the bottom portion of the seat.

The bed frame is composed of four pivotally connected sections, preferably formed of angle bars. The first or foot section comprises an end bar 2 and side bars 3 extending therefrom at right angles for about one-fourth the length of the bed. The length of the end bar 2 determines the width of the bed and this should be a small amount less than the width of the seat which the folded bed frame displaces. The second section comprises two side bars 4 connected by knuckle joints to side bars 3 on the outside. The pivot pin 6 of each knuckle joint passes through the vertical portion of the angle bars and a horizontal portion of each bar 4 is cut away to abut against the end 7 of the horizontal portion of the connected bar 3. The third section comprises side bars 8, which are pivotally connected on the outside of bars 4 in exactly the same manner as these bars are connected to bars 3. The fourth or head section, comprising head bars 9 and side bars 11, is similar to the foot section except that it is wider, the side bars being knuckle jointed on the pivot pins 12 to and on the outside of bars 8 in the same manner that bars 4 are connected to bars 3. A washer 13 is interposed on each pin 12 between the adjacent vertical walls of the side bars 8 and 11 to space these bars a short distance apart as shown in Fig. 1.

At the outer end of the head section a leg 14 is pivotally attached to each side bar, the legs being braced and connected on the inside by flat rails 16. An inwardly opening knuckle brace 17 connects each leg 14 to the adjacent side bar 11. A similar leg 18 and brace 19 are arranged to support the foot end of the bed frame. Means are provided for supporting the middle of the frame from the ground and for connecting the sides of the frame to prevent the pull of the wire fabric 21 from deforming the sides. Pivotally attached to the horizontal portions of the side bars 4 near the center of the bed frame is a brace comprising vertical members 22 connected at right angles to horizontal member 23 which lies sufficiently below the fabric 21 to clear it when the bed is occupied. An inwardly opening knuckle brace 24 connects each vertical member of the brace to the adjacent side bar 4. Legs 26 are attached to the horizontal member 23 so that in use the bed frame is supported by six legs, two in the middle and two at each end. The fabric 21 is of the well known form and attached by springs 27 to the sections in the usual way.

When extended the structure above described provides a bed frame which with the addition of the mattress 28 forms a comfortable bed. The mattress is preferably

formed in four sections hinged together as shown in Fig. 2 on alternate sides so as to permit of folding to superpose the sections as shown in Fig. 3.

The bed frame is folded by breaking the knuckle brace 19 inwardly to allow the legs 18 to swing upwardly within the angle bars 3. Legs 16 and 26 are similarly folded up within the head and second section side bars respectively. The foot section is then turned over to lie within the second section, the legs 18 lying between the brace members 22 and the vertical portion of the side bars 3. The second section is then turned over into the third section which in turn is turned over into the head section, the legs 16 lying between the vertical portions of the side bars 8 and 11. A strap may then be buckled about the adjacent head and foot end bars to hold the sections tightly together, and the folded frame placed in the automobile, the folded mattress being superposed to form a seat. When thus nested together, the sections form a package, as indicated in Fig. 3 which is substantially the size of any one of the separate sections.

I claim:

1. A portable iron camp cot or bed, comprising U-shaped head and foot frame sections, each of angle iron with down-turned side flanges and inturned top flanges; spring fabric attached to the top flanges; a pair of outer bars attached to the side arms of the head frame section to fold thereunder; an inner pair of side bars attached to the side arms of the foot section, to overlap the same when collapsed, and attached to the outer bars.

2. A portable iron camp cot or bed, comprising U-shaped head and foot frame sections, each of angle iron with down-turned side flanges and inturned top flanges; spring fabric attached to the top flanges; a pair of outer bars attached to the side arms of the head frame section to fold thereunder; an inner pair of side bars attached to the side arms of the foot section, to overlap the same when collapsed, and attached to the outer bars, and pairs of transversely braced legs foldably attached to the end sections and to the inner bars.

3. A portable iron camp cot or bed, comprising U-shaped head and foot frame sections, each of angle iron with down-turned side flanges and inturned top flanges; spring fabric attached to the top flanges; a pair of outer bars attached to the side arms of the head frame section to fold thereunder; an inner pair of side bars attached to the side arms of the foot section, to overlap the same when collapsed, and attached to the outer bars, and pairs of transversely braced legs foldably attached to the end sections and to the inner bars, the pivots of the intermediate pair of legs being so arranged on the inner bars as to permit of the foot frame to be folded along the said bars.

In testimony whereof I have hereunto set my hand at San Francisco, California, this 19th day of April, 1919.

FELIX S. BERTA