J. W. PATTERSON.

FOLDING BED FOR AUTOMOBILES.

APPLICATION FILED SEPT. 11, 1920.

1,377,852. **Patented May 10, 1921.**

2 SHEETS—SHEET 1.

Fig. 1.

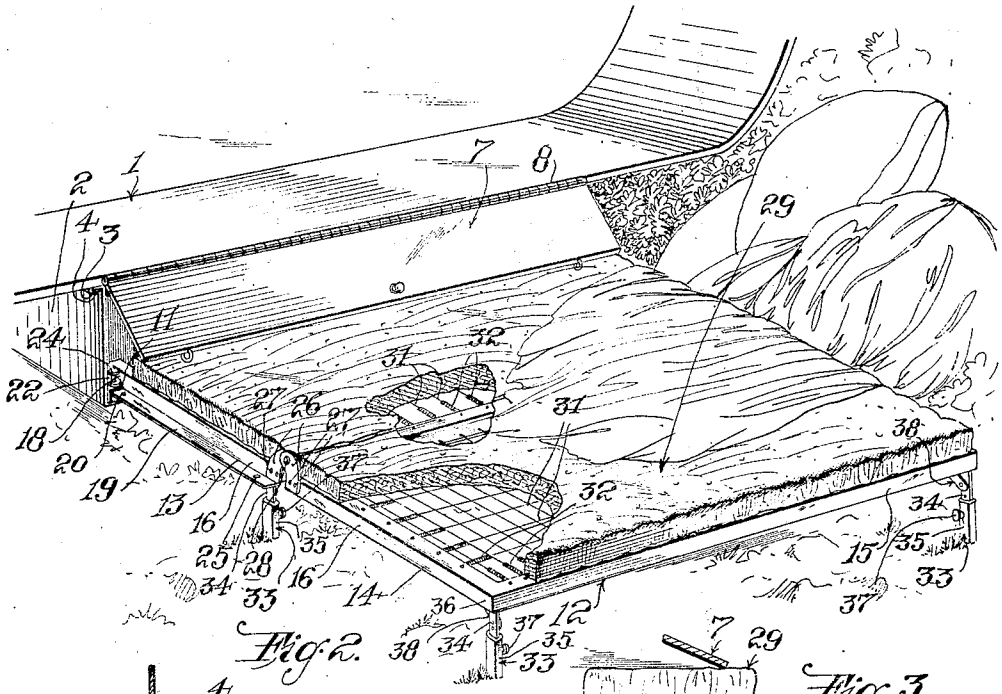


Fig. 2.

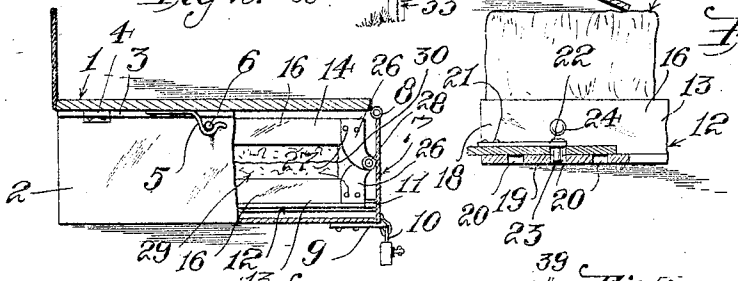


Fig. 3.

Fig. 5.

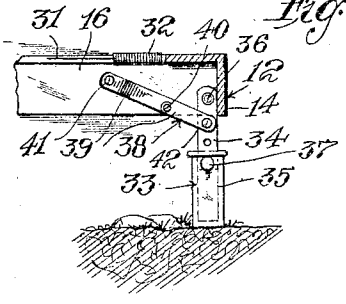
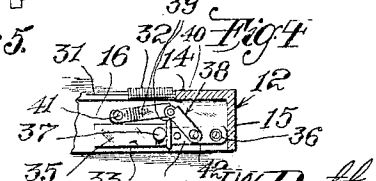


Fig. 4



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2 SHEETS—SHEET 2.

Fig. 6

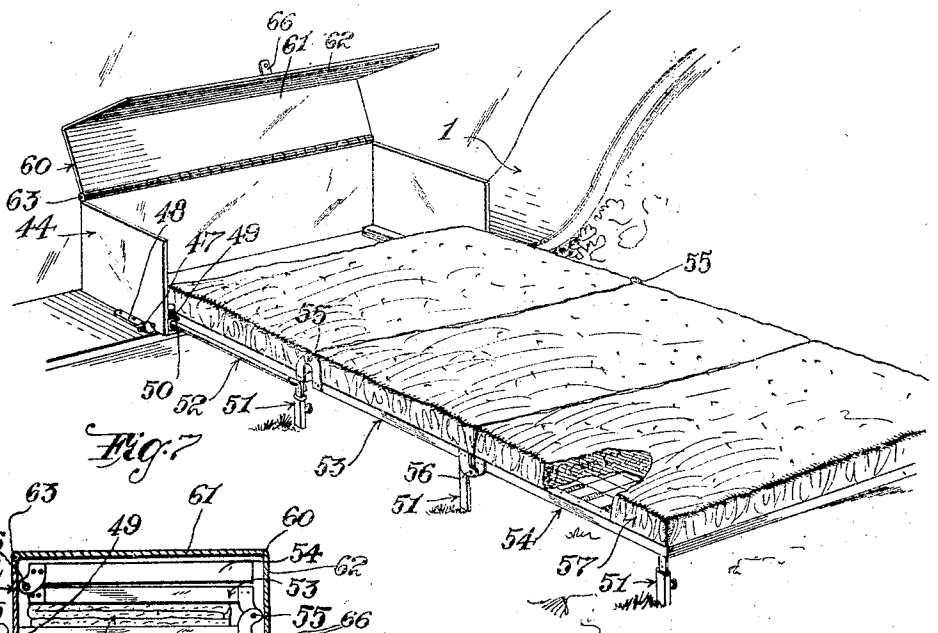


Fig. 7

Fig. 8

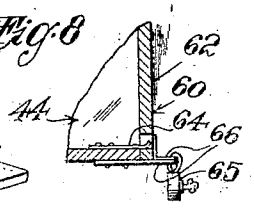


Fig. 9

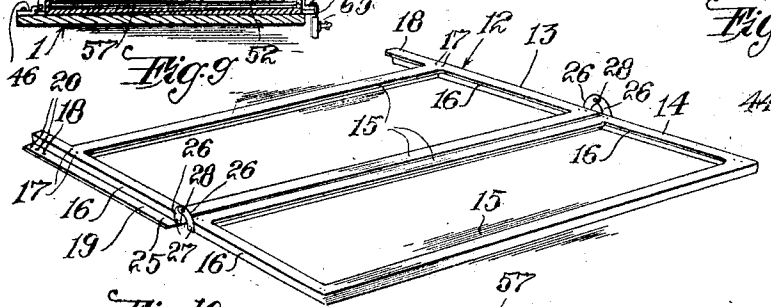
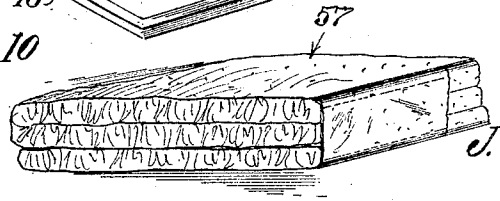


Fig. 10



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FOLDING BED FOR AUTOMOBILES.

1,377,852. Specification of Letters Patent. Patented May 10, 1921.

Application filed September 11, 1920. Serial No. 409,555.

To all whom it may concern:

Be it known that I, JOHN WILLIAM PATTERSON, a citizen of the United States, residing at Oklahoma city, in the county of Oklahoma and State of Oklahoma, have invented certain new and useful Improvements in Folding Beds for Automobiles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved folding bed for automobiles particularly adapted for attachment to a running board and foldable in a small compass in order to consume but a small space.

One of the objects of the invention is to provide a device which is simple, efficient and practical in construction and which comprises a plurality of sections so foldable as to house a mattress pad when the sections of the bed are folded.

Another object is to provide means for housing the entire folding bed when not in use.

Still another object is the provision of means for retaining one section connected to the housing when the sections of the folding bed are extended and in use.

A further object is the provision of foldable adjustable legs for the various sections for supporting them when the sections are unfolded and extended.

While the design and construction at present illustrated and set forth is deemed preferable, it is obvious that as a result of a reduction of the invention to a more practical form for commercial purposes, the invention may be susceptible of changes, and the right to these changes is claimed, provided they are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as will be hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a view in perspective of a portion of an automobile particularly showing the running board, and illustrating the folding bed sections as connected to a housing which is disposed under the running board, showing the sections extended and ready for use,

Fig. 2 is a sectional view through the housing showing the sections of the bed folded and positioned within the housing,

Fig. 3 is an enlarged detail sectional view of a portion of the guide for one of the sections of the bed showing the spring catch for retaining the extensions of one of the sections as connected to the housing,

Fig. 4 is a detail view of one of the sections of the bed showing the foldable extensible leg folded,

Fig. 5 is an enlarged detail view of a portion of one of the sections of the bed showing the foldable extensible legs,

Fig. 6 is a view in perspective of a portion of the running board of an automobile showing the housing on the top of the running board and the extensible folding bed as connected to the housing with the sections extended and unfolded,

Fig. 7 is a cross sectional view through the housing of Fig. 6 showing the sectional bed folded with the mattress pad therein,

Fig. 8 is an enlarged detail view of the latch for latching the double covering of the housing,

Fig. 9 is an enlarged detail perspective view of the sectional bed frame shown in Fig. 1, and

Fig. 10 is an enlarged detail perspective view of the mattress pad shown in Fig. 6 and showing the pad folded.

Referring to the drawings, 1 designates the running board of an automobile and 2 denotes a housing which is connected to the under surface of the running board by means of the guide flanges 3 of the housing and the L-shaped supports 4, though other means may be employed. In order to prevent the housing from sliding laterally from under the running board, spring catches 5 are employed to engage the lateral pins 6. The housing is provided with a suitable closure 7, hinged at 8 to the upper edge of the housing, as shown.

Spring catches 9 are carried by the lower part of the housing to retain the closure 7 in a closed position. A suitable padlock 10 is provided for locking the closure when latched to prevent unauthorized persons from gaining access to the foldable bed.

Arranged in the housing upon the bottom thereof are the U-shaped guides 11. Referring to Figs. 1–5 inclusive one form of foldable bed 12 is disclosed and which com-

prises sections 13 and 14. These sections each comprise side and end angle pieces 15 and 16 which are secured together as at 17. The inner end pieces 16 have extensions 18 and are provided with lateral flanges 19 which slidably engage the U-shaped guides 11. The lateral flanges 19 are provided with a plurality of openings 20 adjacent the extensions 18. Secured upon the upper faces of the U-shaped guides as at 21 are spring catches 22 having lugs 23 which extend through the upper walls of the U-shaped guides and are designed to engage any one of the openings 20 to hold the extensions of the end pieces 16 of the innermost section of the foldable bed connected within the housing thereby assisting materially in supporting the innermost section of the foldable bed.

The spring catches have headed pins 24 which may be grasped for raising the spring catches in order to withdraw the pins 24 in order to permit the foldable bed to be moved inwardly of the housing when not in use. The outermost ends of the lateral flanges 19 of the innermost section of the foldable bed are provided with openings 25 which may also be engaged by the lugs 23 to retain the innermost section within the housing when the sections of the bed frame are folded.

The foldable sections 13 and 14 of the bed frame 12 are hingedly united by means of the upturned hinge members 26 which are secured as at 27 to the end pieces of the bed frame sections and which are in turn pivotally united as at 28. It will be noted that by means of the upturned hinged members, the bed frame sections may be folded in such a manner as to provide sufficient space between the sections 13 and 14 of the bed frame for the reception of a foldable mattress pad 29. The mattress pad comprises two sections joined as at 30 so that one section may fold upon the other when the bed frame sections are folded as shown clearly in the drawings.

As previously stated, the bed frame sections are constructed from angle pieces or angle irons, and it will be noted that the intersecting wires 31 of the bed spring are connected to the side and end pieces of the bed frame sections by means of the usual coil springs 32.

Referring to Fig. 1, it will be noted that the bed frame sections are elongated and are arranged in parallelism with the running board so that when the bed frame sections are unfolded and extended, the user may lie upon the bed in a position parallel with the running board. However, if desired, the occupant of the bed may lie at right angles to the running board.

The sections 13 and 14 of the bed frame are provided with supporting legs 33. Each leg 33 consists of two sections 34 and 35. The section 34 is pivotally connected at 36 to the vertical flange of the end angle pieces so that the legs may be folded in parallelism with the vertical flange as shown clearly in Fig. 4. The sections 34 and 35 are telescopically or slidably united and the section 35 may be held in different adjusted positions by means of the set screws 37. Suitable braces 38 connect the angle end pieces of the bed frame section and the sections 34 of the legs. These braces 38 each consist of two sections 39 which are pivotally united by means of a rule joint 40 so that when the leg is folded adjacent the end piece of the bed frame section, the brace may collapse to the position shown in Fig. 4. The sections 39 of the brace are respectively pivotally connected to the end piece and the section 34 of the leg as at 41 and 42.

The two sections of the mattress pad may fold against each other and when the bed frame sections are folded the mattress pad may be positioned between the two sections, after which the bed frame sections may be moved within the housing under the running board and the closure 7 subsequently latched and locked. As shown in the drawings the closure 7 rests upon the mattress pad, so as to provide a pillow rest.

In Fig. 6 the housing 44 is mounted on the upper surface of the running board. The housing 44 is provided with lugs 45 which engage under the clamps 46 so as to prevent lateral movement of the housing. The ends of the housing 44 are provided with lateral pins 47 which are engaged by the spring clamps 48, also assisting in preventing lateral movement of the housing.

The bed frame sections in Fig. 6 are similar to those in Fig. 1, with the exception that the sections are shorter and wider and in this case the bed frame may extend at right angles to the running board instead of being in parallelism with the running board. The extensions 49 of one of the bed frame sections in Fig. 6 are retained in engagement with the guides 50 by means of spring catches similar to the catches 22. Foldable extensible legs 51 similar to those previously described are also carried by the sections of the bed frame in Fig. 6. It will be noted that the bed frame in Fig. 6 comprises the sections 52, 53 and 54 hingedly united as at 55 and 56. The hinges 55 consist of upturned hinged members while the hinges 56 consist of downwardly turned hinge members. By means of this construction it will be noted that the section 53 may fold upon the section 52 so as to provide sufficient space to receive the mattress pad 57 preferably consisting of three sections which are foldable as shown clearly in Fig. 7.

When the section 53 is folded in order to cover the mattress pad sections, the other

sections 54 of the bed frame may be folded outwardly and downwardly thereby enabling all three sections of the bed frame to be moved within the housing. It will be noted that the bed frame in Fig. 6 may consist of any number of sections and in case any additional sections are used, the sections may be hinged by alternate offset hinge members. In other words, should an additional section be connected to the frame section 54, the hinge members would extend upwardly so that the additional section may fold inwardly and downwardly. It is to be noted that when the bed frame is designed to comprise more than two sections, it is necessary to construct a housing of a height sufficient to permit of the reception of such additional sections. When the bed frame is constructed of only two sections, the housing may be of less height.

It will be noted that the angle irons or pieces give strength and stability and also provide means for connecting the coil springs of the bed spring wires to the frame. Furthermore, a foldable bed of this kind has been found efficient, durable and practical and may be manufactured for a relatively low cost and sold at a reasonable profit.

The housing 44 in Fig. 6 has a closure 60 which comprises the parts 61 and 62 extending at right angles to each other. The part 61 is hingedly connected to the housing as at 63 and constitutes the top of the housing, while the part 62 constitutes the side of the housing. The part 62 engages a latch 64 when the closure is closed. A suitable padlock 65 has its shackle engaging through openings of the plates 66 which are carried by the part 62 of the closure and the bottom of the housing thereby preventing an unauthorized person from opening the closure and gaining access to the foldable bed.

The invention having been set forth, what is claimed as new and useful is:—

1. In a foldable bed, a housing to be supported on the running board of an automobile, a sectional foldable bed frame having guide connections with the bottom of the housing, means for detachably latching one of the sections of the bed frame to the housing, and legs for the sections of the bed frame.

2. In a foldable bed, the combination with a portable support, of a housing mounted thereon and provided with guides, a bed frame comprising foldable sections, one section being detachably guided on and provided with detachable latching connections with the bottom of the housing, means for so pivotally connecting the sections, that when the sections are folded a space is caused to be formed between the sections for the reception of a mattress pad, and means carried by the sections adapted to support the same when the sections are unfolded and extended.

3. In a foldable bed, a housing to be supported on the running board of an automobile, a sectional foldable bed frame and guide connections with the bottom of the housing, means for detachably latching one of the sections in the guide of said guide connections, legs for the sections when extended, said housing having a closure to overlie and engage a mattress, so as to provide a pillow rest.

In testimony whereof I hereunto affix my signature.

JOHN WM. PATTERSON.