

No. 680,042.

Patented Aug. 6, 1901.

T. HAUSER.
FOLDING BED.

(Application filed Dec. 14, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

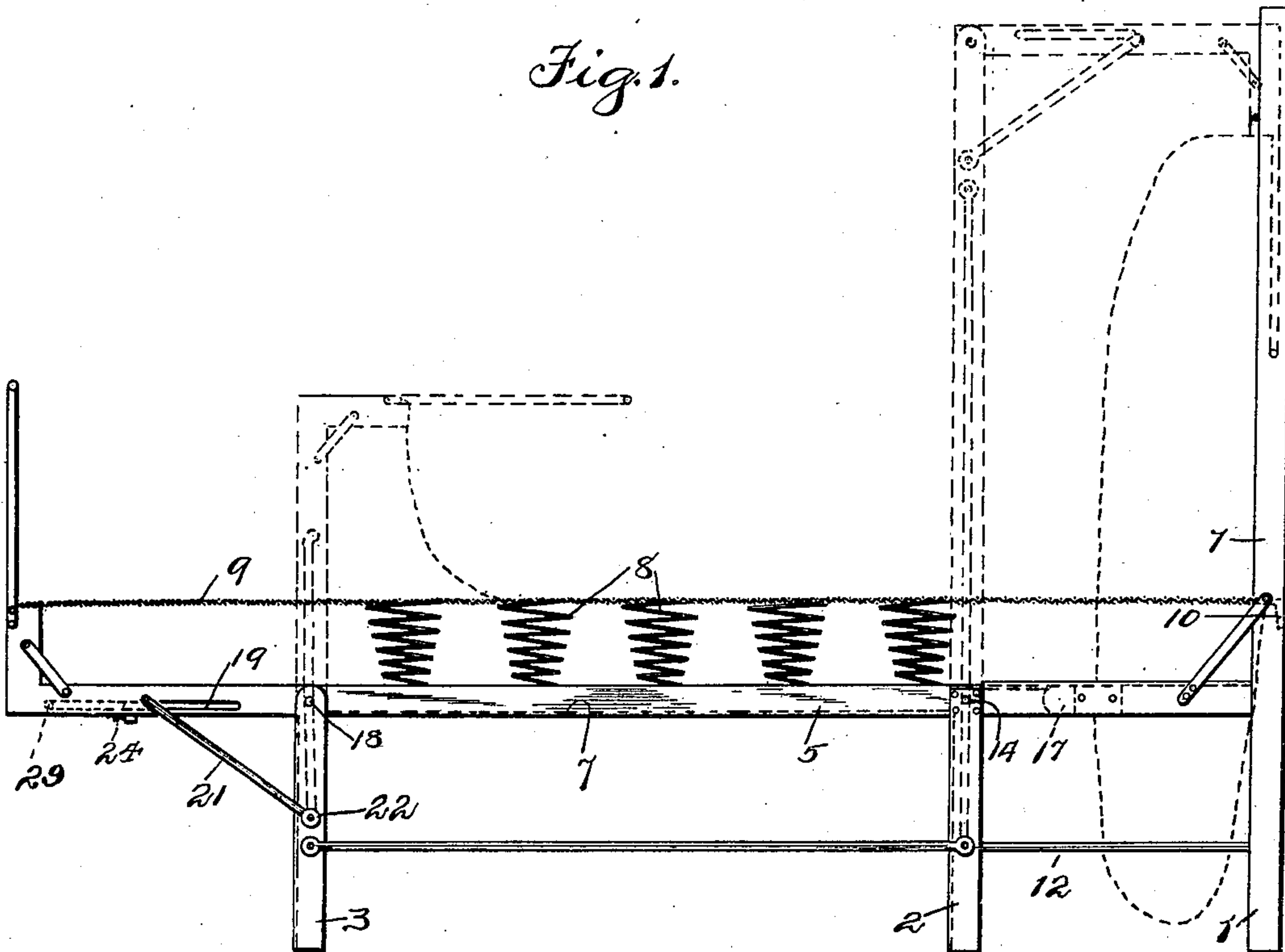
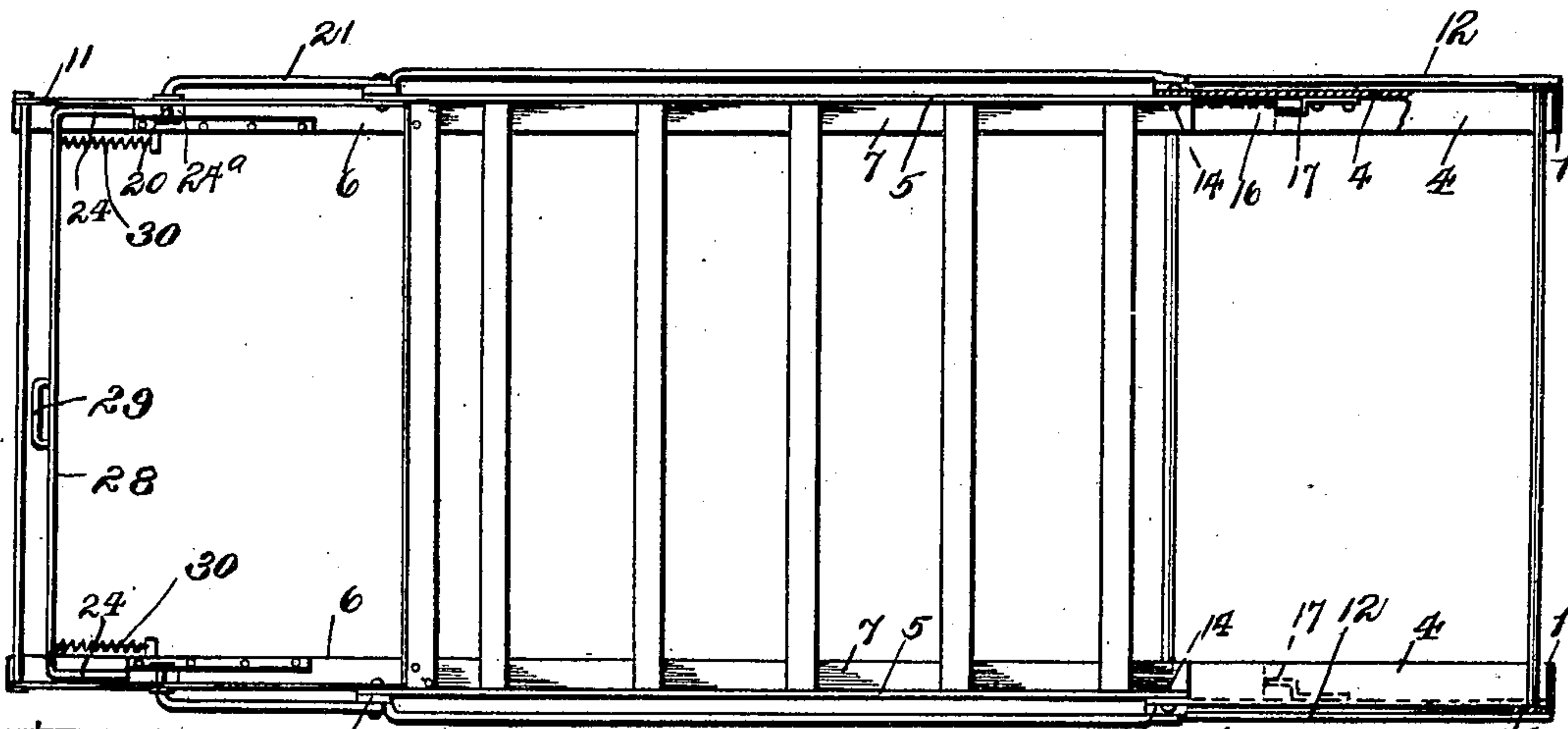


Fig. 2.



Witnesses
J. B. Weir
V. A. Pauberschnitt

By Theodore Hauser
C. E. Pratt & Co. Pm's
Attys

No. 680,042.

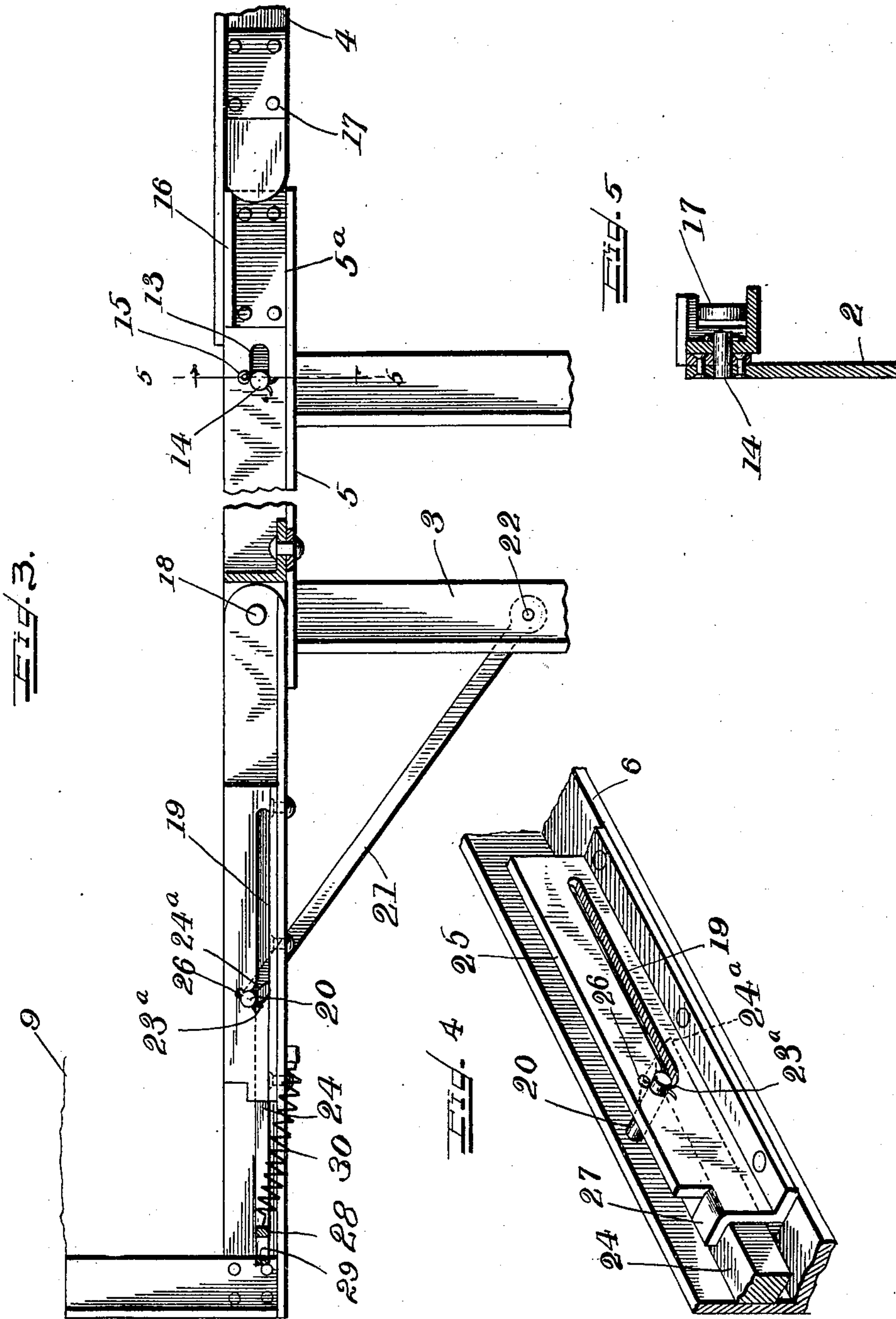
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WITNESSES

J.B. Keir

G.A. Paulerichmidt

INVENTOR

Theodore Hauser

By Charles H. Noyes Attys

UNITED STATES PATENT OFFICE.

THEODORE HAUSER, OF CHICAGO, ILLINOIS.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 680,042, dated August 6, 1901.

Application filed December 14, 1899. Serial No. 740,245. (No model.)

To all whom it may concern:

Be it known that I, THEODORE HAUSER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Beds, of which the following is a full, clear, and exact specification.

My invention relates to folding beds, and more particularly to that class known as "mantel-beds," on which the side rails are provided with hinged foot extensions adapted to fold over horizontally when the side rails are stood upright; and one of the objects of my invention is to provide an improved lock for holding the foot extension from turning on its hinge when let down in position for use.

Another object of the invention is to automatically lock the inner ends of the hinged sections of the side rails where they project beyond their pivotal connection with the fixed sections, and thus prevent pressure applied at this point from tilting up the foot of the bed.

A further important object of my invention is to have the construction such that no rigid parts will project above the mattress at any point between its ends, thus providing what is termed a "soft edge" throughout the entire length of the bed.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of a folding bed constructed according to my invention and showing in full and dotted lines the three different positions which the parts of the bed assume when being folded from an operative to an inoperative position. Fig. 2 is a plan view thereof, showing the bed in its operative position. Fig. 3 is an enlarged vertical longitudinal sectional view of the side rails and foot extension, the head member of the bed being omitted and portions of the side rails between the foot-posts and intermediate posts being broken away. Fig. 4 is an enlarged detail perspective view

looking toward the inner side of one side of the foot extension, showing the sliding lug and locking-bolt, hereinafter described; and Fig. 5 is a detail transverse section taken on the line 5 5, Fig. 3.

In the form of my invention shown in the drawings the entire bedstead is preferably constructed of metallic bars, the head-posts 1, which rise to the height of the mantel, the intermediate posts 2, the foot-posts 3, the rigid sections 4 and hinged sections 5 of the side rails, and the foot extension 6 being preferably made of L-shaped angle-bars, with the angles of the side rails turned inwardly to form supports for the slats 7, carrying the springs 8, arranged under the usual mattress fabric 9, which is rigidly secured at the head end by bar 10 or other suitable device to the head-posts 1 and at the foot end to upright extensions 11 on the foot extension 6, which hold the foot end of the mattress 9 on a level with the springs 8 and far above all rigid parts of the bedstead at points between the ends of the mattress, so as to provide a soft edge throughout the entire length of the bed.

The rigid sections 4 of the side rails are each rigidly secured at one end to the head-posts 1, while their other ends are rigidly attached in any suitable way to the intermediate posts 2, a brace 12 being carried between the posts 1 2 near their lower ends. Each of the hinged sections 5 of the side rails is provided at its inner end with a longitudinal slot 13, through which passes a pivot-pin 14, secured in the rigid section 4 and intermediate post 2, the ends of the pins 14, if desired, being provided with cotter-pins 15. By this means it will be seen that the sections of the side rails are afforded relative longitudinal movement, the movement being made by the hinged section sliding on the pin 14 and the movement being produced in a direction toward the head of the bed by the tension of the mattress 9 by virtue of its connection at opposite ends with the hinged and rigid sections 4 5, respectively. The purpose of this is to cause a flange or ledge 16, secured to the inner side of that portion 5^a of the hinged section which projects beyond the pivot 14, to engage over a lug or projection 17, secured to the inner side of each of the rigid sections 4, and thus prevent pressure on the extension

5^a from tilting up the foot of the bed while the parts are in their operative position, the movement of the side sections 5 to accomplish this being permitted by the pivot 18, which connects the foot end of the side section 5 to the foot-post 3. The end of the projection or lug 17 is rounded or beveled, as better shown in Figs. 3 and 5, so that upward movement applied directly to the foot of the bed will crowd the flange or ledge 16 off the lug 17, while downward pressure applied directly to the extension 5 would be insufficient to effect the same result.

The aforesaid hinged foot extension is constituted by the two side portions 6, before described, which are connected together at the foot end by the standards 11 and a cross-bar 11^a, and each of the side sections 6 is hinged by the pivot 18 to the upper end of one of the foot-posts 3 and is provided with a longitudinal slot 19, in which runs or slides a lug 20, formed transversely on a brace 21, whose lower end is pivoted at 22 to the foot-post 3 on both sides of the bed, and the upper side of the slot 19 is formed with a notch 23, which when the lug 20 is forced upwardly thereinto will prevent relative movement between the brace 21 and the hinged foot extension, and consequently lock the foot extension in its horizontal operative position. The retention of the lug 20 in the notch 23 for this purpose may be effected in any suitable way, but preferably by means of a sliding bolt 24, arranged on the horizontal flange of the foot extension 6 and guided by the upright flange of such extension and an upright flange 25 of an angle-bar secured to the horizontal flange of the portion 6 and being also preferably provided with a slot 19^a, having notch 23^a arranged parallel with and matching the slot 19 and notch 23, before described, so as to receive one end of the lug 20, and thus provide a more rigid attachment for the lug, the end of the lug being pierced by cotter-pin 26 to hold it against withdrawal from the slots. The bolt 24 is provided with a beveled end 24^a to facilitate its insertion under the lug 20, and it is held down in place when not under the lug by a lip 27, struck down from the flange 25 or by other suitable device. The bolts 24 are preferably employed on both sides of the bed and are connected together by a cross-bar 28, which is located under the mattress fabric 9, so as not to interfere with the bedclothing, and is provided at its mid-length with an operating-handle 29, whereby the bolts may be withdrawn simultaneously. The bolts are projected normally toward the slots 19 23 by means of springs 30, which hold the bolts in position to prevent the lugs 20 from pulling out of the notches 23 23^a, but will nevertheless permit lugs 20 to force the bolts back when moving toward the notched ends of the slots until they reach said notches, whereupon the beveled end 24^a of the bolts will act to crowd the lugs 20 upwardly into the notches, permit-

ting the springs to shoot the bolts under the lugs, and thus automatically lock the foot extension when simply pulled down into a horizontal position. It will also be seen that by securing the braces to the foot extension at one end and to the foot-posts at the other I render the whole structure rigid and prevent tilting on the pivots of the side rails, even in the absence of the lug 17 and ledge 16, before described.

When it is desired to fold up the bed, the handle 29 is pulled toward the foot of the bed, withdrawing the bolts 24 and permitting the lugs 20 to slide down the slots 19 as the foot extension 6 is stood upright, as shown in dotted lines in the first position in Fig. 1, and to again slide forward or toward the notched end of the slots 19 as the hinged sections 5 of the side rails are stood upright, as shown in the last position in dotted lines in Fig. 1. This operation of the foot extension, it will be seen, requires the foot extension to turn on its pivot 18 with relation to the side rails throughout a movement of ninety degrees.

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

1. A folding bed having in combination a hinged foot extension, a brace having sliding connection at one end with said foot extension for holding it horizontal and a sliding bolt for locking said brace against movement with reference to the foot extension, substantially as set forth.

2. A folding bed having in combination a hinged foot extension, a brace having lug-and-slot connection with said foot extension, said slot having a notch for receiving said lug and a bolt for engaging said lug and forcing it into said notch, substantially as set forth.

3. A folding bed having in combination hinged side rails, an upwardly-folding hinged foot extension, the foot-posts to which said extensions and side rails are hinged, a brace hinged at one end to said foot-posts and having sliding connection at the other end with said foot extension and means for locking said brace against movement with relation to said foot extension, substantially as set forth.

4. A folding bed having in combination a hinged foot extension, a brace fixed at one end and having movable connection at the other end with said foot extension, a sliding bolt for locking said foot extension and brace together and means for imparting a normal tendency to said bolt to engage said brace, substantially as set forth.

5. A folding bed having in combination a hinged foot extension, a brace fixed at one end and having lug-and-slot connection at the other end with said foot extension, a sliding bolt for locking said brace and foot extension together adapted to engage said lug and a spring for causing said bolt to engage and automatically lock said lug in said slot, substantially as set forth.

6. A folding bed having in combination a hinged foot extension provided with two substantially parallel longitudinal flanges having longitudinal slots, a brace fixed at one
5 end and having a lug passing through said slots, and a bolt supported on the foot extension between said flanges and adapted to slide under said lug, substantially as set forth.

7. A folding bed having in combination
10 side rails each composed of one rigid and one hinged section having relative longitudinal movement and a projection on one adapted to be engaged by the other for preventing downward movement of the hinged section
15 at the end adjacent to the rigid section, substantially as set forth.

8. A folding bed having in combination side rails each composed of a rigid and a hinged section having relative longitudinal
20 movement, a projection on one adapted to be engaged by the other for preventing downward movement of the hinged section at the end adjacent to the rigid section and the mattress having connection at opposite ends with
25 said sections respectively and adapted to draw them toward each other for causing said projection on one section to be engaged by the other section, substantially as set forth.

9. A folding bed having in combination
30 side rails each composed of a rigid section and a hinged section having a slot-and-pin connection with said rigid section permitting

of longitudinal movement of the hinged section and a projection on the rigid section adapted to engage with the hinged section, 35 substantially as set forth.

10. A folding bed having in combination side rails each composed of a rigid section and a hinged section, one of said sections having a ledge or flange and the other hav- 40 ing a projection adapted to engage under said ledge or flange, said sections being relatively movable longitudinally and the mattress having connection at opposite ends with said sections and tending to draw said flange 45 and projection into engagement with each other, substantially as set forth.

11. A folding bed having in combination upwardly-folding side rails movable from a horizontal to an upright position, an up- 50 wardly-folding hinged foot extension movable on its hinge with relation to said side rails throughout an arc of ninety degrees, the foot-posts to which said extension and side rails are hinged, a brace hinged at one end to said 55 foot-posts and having sliding connection at the other end with said foot extension and means for locking said brace against movement with relation to said foot extension, substantially as set forth.

THEODORE HAUSER.

Witnesses:

EDNA B. JOHNSON,
F. A. HOPKINS.