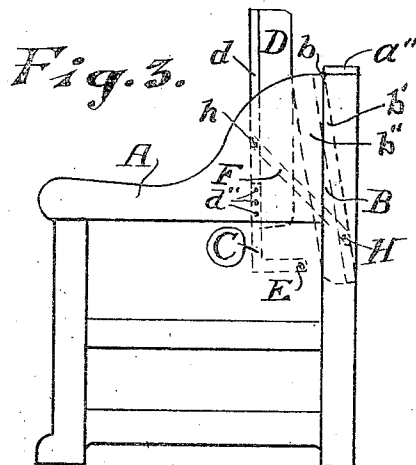
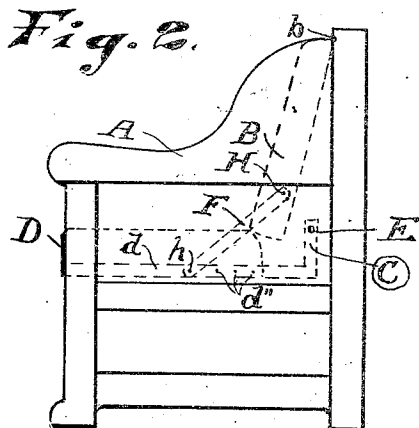
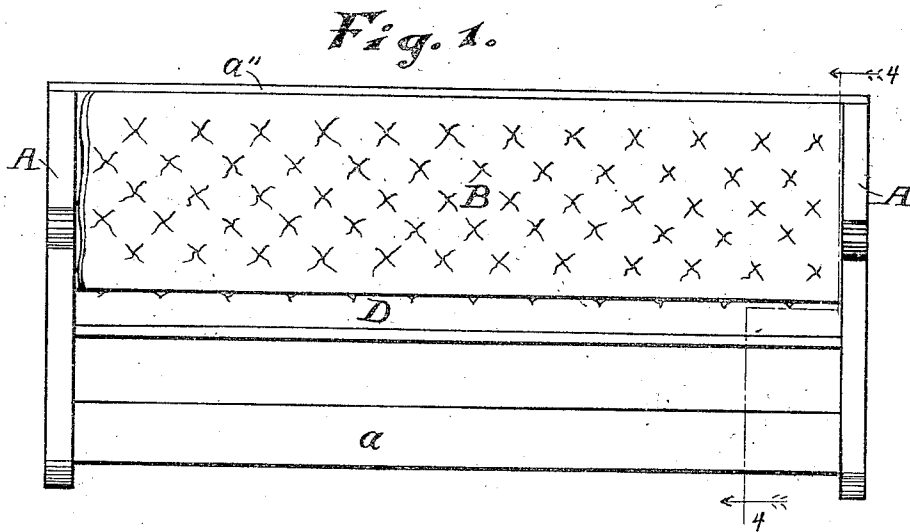


931,852

Patented Aug. 24, 1909.

3 SHEETS—SHEET 1.



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931,852.

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3 SHEETS—SHEET 2.

Fig. 4.

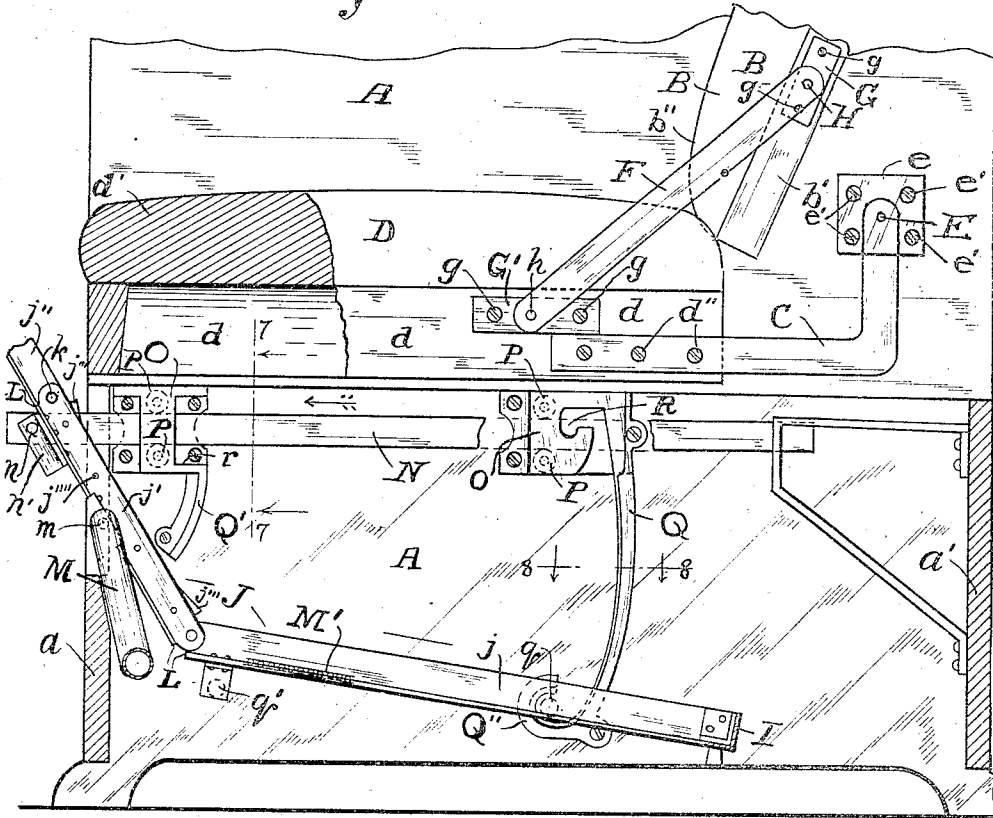


Fig. 5.

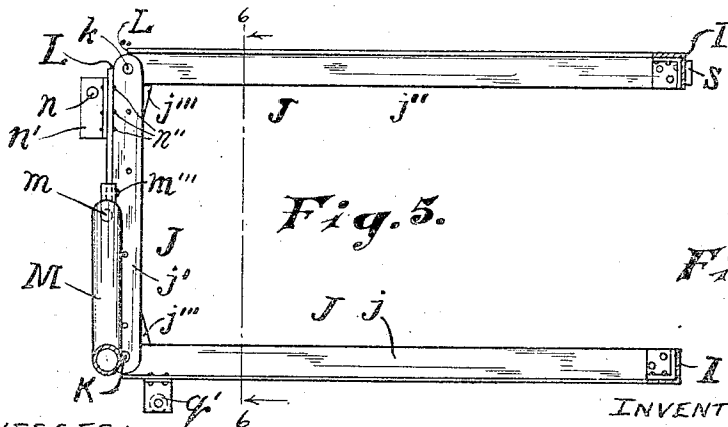
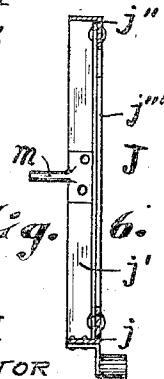


Fig. 6.



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 APPLICATION FILED MAY 10, 1909.

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3 SHEETS—SHEET 3.

Fig. 7.

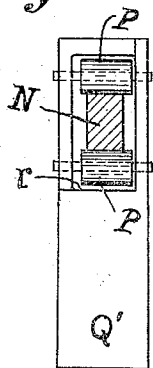


Fig. 8.

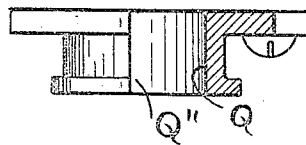


Fig. 9.

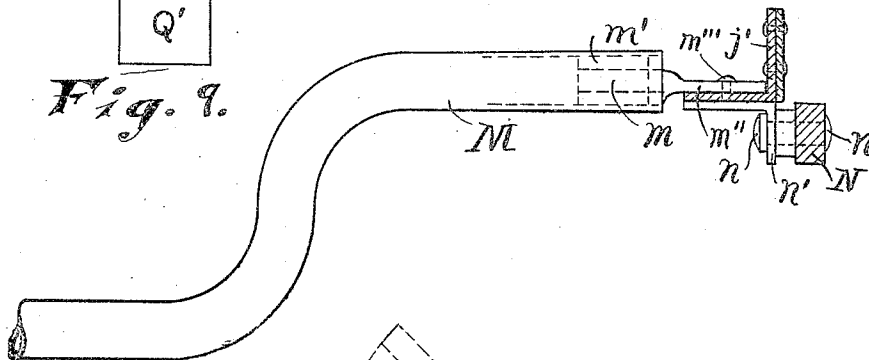
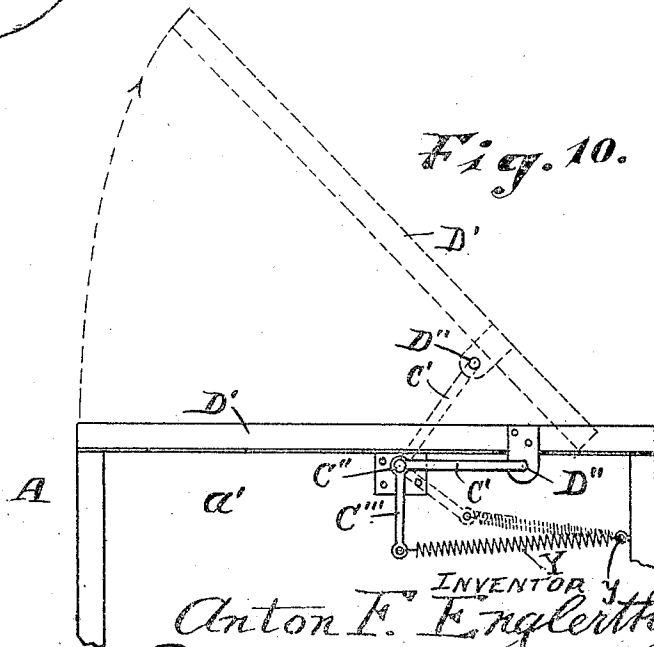


Fig. 10.



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COMBINED BED AND DAVENPORT.

931,852.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed May 19, 1909. Serial No. 495,135.

To all whom it may concern:

Be it known that I, ANTON F. ENGLERTH, a subject of the Emperor of Austria-Hungary, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Bed and Davenport, of which the following, when taken in connection with the drawings accompanying and forming a part hereof, is a full and complete specification, sufficient to enable those skilled in the art to which it pertains to understand, make, and use the same.

The object of the invention is to obtain a combined bed and davenport, or couch, which may be set against the wall or partition of a room, and converted from a davenport or couch to a bed, and back again to a davenport or couch, without moving the same from the wall.

A further object of the invention is to obtain a combined bed and davenport or couch, which will be slightly in appearance, and which, when the several parts thereof are in position for the device to be used as a davenport or couch, will not have the appearance of a combination piece of furniture, as such devices are termed in the art.

A further object of the invention is to obtain a device of the character named which will be simple in construction, certain in its operation, easily manipulated by a person not skilled in the use of machinery, which will not require much strength to operate it, and which will present sufficient room for clothing and a mattress, when the bed thereof is closed, and which, when the bed is open, will present a comfortable bed.

I have illustrated this invention in the drawings referred to, in which—

Figure 1 is a front view of a device embodying the invention, with the bed closed and the remaining movable part thereof in position to form a davenport provided with a back. Fig. 2 is an end elevation of the device illustrated in Fig. 1, with the seat and back thereof, illustrated by broken lines, in the same position as illustrated in said Fig. 1. Fig. 3 is an end elevation of the device illustrated in Fig. 1 with the seat and back thereof, illustrated by broken lines, in position to permit the bed to be made up. Fig. 4 is a vertical sectional view of the frame of the device, on line 4—4 of Fig. 1, viewed in the direction indicated by the

arrows, showing the movable parts on one end of the frame in elevation, with the seat and back in a closed position, with the bed mattress removed, and the bed frame partly open. Fig. 5 is a vertical sectional view of the bed frame of the device, in a closed position. Fig. 6 is a sectional view of the bed frame of the device on line 6—6 of Fig. 5, viewed in the direction indicated by the arrows. Fig. 7 is a sectional view of a longitudinally movable bar forming an element of the device, on line 7—7 of Fig. 4, showing in elevation one of the supporting members of said bar. Fig. 8 is a sectional view on line 8—8 of Fig. 4, of a guide member forming an element of the device. Fig. 9 is an elevation of the end of a connecting brace, forming an element of the bed frame, showing the longitudinally movable bar and one of the end bars of the bed frame in vertical section. Fig. 10 is a sectional view of a modification of the hinge and seat of the device.

A reference letter applied to designate a given part is used to indicate such part throughout the several figures of the drawings, wherever the same appears.

The frame of the device consists of the ends A, A, suitably connected together.

a, a', a'' are rails or boards connecting ends A, A, together.

B is the back of the device pivotally attached at b , (Figs. 2 and 3), to rail a'' . Back B comprises a frame having end rails b' and the upholstered part b'' .

D is the seat of the device pivotally attached to the ends A, A, by the right angle bar C. Seat D is provided with end rail d , and upholstered part d' .

E is the pivot on which the bar C turns and e is the base to pivot E. Base e is rigidly attached to ends A, A, by screws e' and the bar C is rigidly attached to the end rail d of the seat D by screws d'' . The purpose is to raise the seat D as it is turned from the horizontal position illustrated in Fig. 2, to the vertical position illustrated in Fig. 3, so that when the seat is raised access may be had to the bed frame; and such bed frame may be turned, as hereinafter described, from a position illustrated in Fig. 5 into a horizontal plane to make up a bed thereon.

To permit the back B to be inclined when the seat D is in a horizontal position, (as

illustrated in Figs. 1 and 2 of the drawings) and to have room to raise the seat into a vertical position, said back B and seat D are tied together by connection F.

5 G is a base secured to end rail *b'* of back B by screws *g* and *G'* is a base secured to rail *d* of seat D by like screws *g*. The bases G, *G'*, are respectively provided with pivots H, *h*, extending through the connection F
10 by means of which pivots said connection is attached to the back and seat respectively.

The bed frame consists of side rails and end rails respectively made of angle iron and of a tie bar. The side rails I, *I'*, are respectively of a single piece of angle iron extending from head end rail to the foot end rail and rigidly secured thereto. The end rails are respectively made of three pieces of angle iron, pivotally attached together. The
15 head end rail and the foot end rail are rights and lefts. One of said end rails is illustrated in Figs. 4, 5, and 6 of the drawings, lettered as a whole J, and comprising the several parts *j*, *j'*, *j''*, and *j'''*, joined together by the pivots K, *k*.

j''' is a piece of flat metal attached to angle iron *j'* by rivets *j''''*, *j'''''*. The purpose of the metal strap *j'''* is to limit the closing of angle irons *j*, *j''*, when the bed is closed, that is, when such angle irons are
20 in the position illustrated in Fig. 5 of the drawings; and the ends of such strap *j'''* are therefore brought into the same plane as the vertical portion of the angle iron *j*, *j''*.

25 The horizontal portion of the several angle irons *j*, *j'*, *j''*, are arranged, as is illustrated in Fig. 4, to abut against each other (at L, *L'*, Figs. 4 and 5) when said angle irons are turned on the pivots K, *k*, to completely open the bed. By the above described construction of the pivotal connections of angle irons *j*, *j'*, and *j''*, *j'''*, the pivotal movement of said angle irons to each other is limited to substantially ninety degrees.

30 The head and foot end rails of the bed, respectively constructed of three pieces of angle iron pivotally connected together, (at K, *k*), are also connected together by the connection M which is pivotally attached to the parts *j'* of said end rails, by pivot *m*. One end of the connection M is illustrated in Fig. 9 of the drawings. The connection consists of a bent tube closed at its ends by plug *m'*. The pivot *m* turns freely in plug
35 *m'* and such pivot is provided with base *m''* which is attached to the horizontal portion of angle iron *j'* by rivets *m'''*. The connection M is bent as illustrated in Fig. 9 so that the spring wire mattress of the bed, as such mattress gives when a person is using the bed, will not come in contact with said connection. The particular construction of the spring wire mattress forms no part of this invention and is not illustrated in the drawings; but said spring wire mattress is at-

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tached to the horizontal portion of the angle iron frame J, *J'*, of the bed in the ordinary way, (see M' Fig. 4).

The head and foot angle irons of the bed frame are respectively constructed of three 70 parts, as hereinbefore described, and for such reason said head and foot angle irons, when the device is in use as a bed, are supported at several different points about to be described. And further, in order to obtain the right 75 position for the bed frame, guides and supports are required.

N, Fig. 4, is a longitudinally movable bar. O, O, are frames respectively provided with rollers P, P, between which rollers the bar 80 N moves and by which the bar, whether wholly contained in the frame A (that is, retracted) or whether partially withdrawn from said frame, (that is, extended) as when the bed is made up, is maintained in a 85 horizontal plane. The middle portion *j'* of the end rails of the bed are, respectively, at the head and foot of the bed pivotally attached to the longitudinally movable bar N by pivot *n* extending through the projection 90 *n'*, which is shown made of angle iron and attached to the angle iron *j'* by rivets *n''*.

When the back B and seat D of the device are raised into substantially the position illustrated in Fig. 3 of the drawings, the bed 95 frame J may be opened, and as said bed frame is opened the parts *j*, *j'*, *j''*, of said end rails, during the act of opening, are brought into the relative positions illustrated in Fig. 4 of the drawings. During the completion of 100 the opening of said bed frame the parts *j*, *j'*, and *j''* will all be brought into the same plane, (part *j'* turning on pivot *n*) and thereafter the part *j* will be raised into a horizontal plane, the part *j'* will turn on 105 pivot *n* into said horizontal plane, and the part *j''* will be lowered into said horizontal plane. To guide the several parts of the end rails in the last above described movement the supports O, O, are extended down, at 110 Q, Q', and rollers *q*, *q'*, are mounted on part *j*. Roller *q* and extension Q force the bed frame out from the frame (forcing longitudinally movable bar N out) and roller *q'* and extension Q' prevent said bed frame 115 from being forced too far out. The parts Q Q' and rollers *q*, *q'*, therefore form guides controlling the position of the bed frame as it is being raised from the position illustrated in Fig. 4 into a horizontal plane. 120

Q'' is a pocket or recess at the lower end of extension Q to receive the roller *q* as the bed frame is closed into frame A, and part *j* turned, on roller *q*, into a horizontal plane.

When the end rails are all in the same 125 horizontal plane the bed frame is drawn out to bring roller *q* into recess R and roller *q'* on the table *r*.

S is a leg pivoted to the outside side rail (I) of the bed frame. When in this posi- 130

tion the bed frame is supported on the roller q in recess R , roller q' on table r , pivot n , and leg S .

The vertical parts of the angle irons j, j' , j'' of both end rails are maintained in their respective vertical planes at all times, by connection M .

When a mattress and bed clothes are mounted on the bed frame of this device and the frame is in substantially the position thereof illustrated in Fig. 5 of the drawings said mattress and bed clothes are between rails j, j'' .

In Fig. 10 a modification of the manner of hinging the seat to the frame is illustrated. In this modification D' is the seat frame and C' is a rod extending from one end of the frame to the other end of said frame. Rod C' is pivoted at C'' to end a' of the frame and to seat frame D' at D'' , and said rod C' is turned at right angles from the pivot and continued downward as shown at C''' .

Y is a spring one end whereof is attached to the lower end of part C''' and the other end to the frame A (at y), so that said spring is under tension. The tension on said spring Y is greatest when frame D' is in a horizontal plane.

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

1. In a combined bed and davenport, a frame, a back hinged at its upper edge to the frame, a seat pivoted to the frame, the said pivot located above the under side of the seat and back of the rear edge of said seat, and a connection between the seat and the back, said connection arranged so that as the seat is raised on said pivot the rear edge thereof is elevated and the back is turned on its hinges to move the lower edge of said back backward.

2. In a combined bed and davenport, a frame, a back and a seat respectively hinged to the frame and a bed frame consisting of side and end rails, said end rails respectively made of three pieces pivoted together, rollers on the frame, bars arranged to move longitudinally between the rollers, the middle pieces of the end rails of the bed frame pivotally mounted, adjacent to one end of said middle pieces, on said bars, guides on the frame, abutments at the upper ends of the guides, abutments on one of the end pieces of the end rails movable in said guides and onto said abutments, a connecting bar bent at its ends and pivotally attached to the middle pieces of the end rails and legs movably attached to one of the side rails of the bed.

3. In a combined bed and davenport, a frame, a bed frame consisting of side and end rails, said end rails respectively made of three pieces pivoted together and arranged to have a relative movement of substantially

ninety degrees, bars mounted on the frame and arranged to move longitudinally, the middle pieces forming the end rails of the bed frame pivotally mounted, adjacent to one end thereof, on said bars, guides on the frame and abutments at the upper ends of the guides, abutments on one of the end pieces of the end rails arranged to move between said guides and to rest on the abutments at the upper ends of said guides, a connecting bar pivotally attached to the middle pieces of the end rails, and legs on one of the side rails of the bed.

4. In a combined bed and davenport, a frame, a back and a seat respectively hinged to the frame and a bed frame consisting of side and end rails, said end rails respectively made of three pieces pivoted together, bars mounted on the frame and arranged to move longitudinally the middle pieces of the end rails of the bed frame, pivotally mounted, adjacent to one end thereof, on said bars, guides on the frame, and abutments at the upper ends of the guides, abutments on one of the end pieces of the end rails arranged to move between said guides and to rest on the abutments at the upper end of said guides, and a connecting bar pivotally attached to the middle pieces of the end rails.

5. In a combined bed and davenport, a frame, a back and a seat respectively hinged to the frame and a bed frame consisting of side and end rails, said end rails respectively made of three pieces pivoted together, bars mounted on the frame and arranged to move longitudinally, the middle pieces of the end rails of the bed frame, pivotally mounted adjacent to one end thereof, on said bars, guides on the frame, and abutments at the upper ends of the guides, abutments on one of the end pieces of the end rails arranged to move between said guides and to rest on the abutments at the upper end of said guides and a connecting bar consisting of a tube bent at the ends thereof pivotally attached at its ends to the middle pieces of the end rails.

6. In a combined bed and davenport, a frame, a back and a seat respectively hinged to the frame and a bed frame consisting of side and end rails, said end rails respectively made of three pieces pivoted together, an additional bar attached to the middle one of said pieces and arranged so that the ends thereof abut against the end pieces to limit the movement of said pieces on the pivots when the bed frame is closed, bars mounted on the frame and arranged to move longitudinally, the middle pieces of the end rails of the bed frame, pivotally mounted adjacent to one end thereof, on said bars, guides on the frame, and abutments at the upper ends of the guides, abutments on one of the end pieces of the end rails arranged to move between said guides and to rest on the abut-

ments at the upper end of said guides and a connecting bar consisting of a tube bent at the ends thereof pivotally attached at its ends to the middle pieces of the end rails.

- 5 7. In a combined bed and davenport, a frame, a back and a seat respectively hinged to the frame, in combination with a bed frame consisting of side and end rails, legs on one of the side rails, said end rails re-
 10 spectively made of three pieces pivoted together, bars mounted on the frame and arranged to move longitudinally the middle pieces of the ends rails of the bed frame pivotally mounted adjacent to one end there-
 15 of, on said bars, guides on the frame and abutments at the upper ends of the guides, end rails movable on said guides and arranged to rest on the abutments at the up-
 20 per end of said guides, and a connecting bar pivotally attached to the middle pieces of the end rails.

8. The combination of a stationary frame and a movable bed frame, said bed frame
 25 consisting of end and side rails, said end rails respectively comprising three pieces pivoted together, and bars mounted on the inner faces of the ends of the stationary frame and arranged to be longitudinally
 30 movable, the middle pieces of said end rails pivotally mounted on said bars, guides on the stationary frame and abutments at the

upper ends of said guides, additional abutments on one of the pieces of the end rails, said additional abutments arranged to en- 35
 gage with the guides and to be movable on to the abutments at the upper ends of said guides, and a connecting bar pivotally attached to the middle pieces of the end rails.

9. The combination of a stationary frame 40
 and a movable bed frame, said bed frame consisting of end and side rails and said end rails respectively comprising three pieces pivoted together, longitudinally mov-
 45 able bars, rollers mounted on the stationary frame and arranged to guide and support said longitudinally movable bars and the middle pieces of said end rails pivotally at-
 50 tached to said bars, guided on the stationary frame and abutments at the upper ends of said guides, additional abutments on one of the pieces of the end rails, said additional
 abutments arranged to engage with the guides and to be movable on to the abutments at the upper ends of the guides, a
 51 connecting bar pivotally attached to the middle pieces of the end rails, said connect-
 ing bar arranged to be below the plane of the bed rails when said rails are all opened into a given plane.

ANTON F. ENGLERTH.

In the presence of—

JOSEF RUSNAK,

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