C. W. MEVES AND F. G. HERRMANN.

BED DAVENPORT.

APPLICATION FILED DEC. 4, 1918.

1,349,620.

Patented Aug. 17, 1920.

2 SHEETS—SHEET 1.

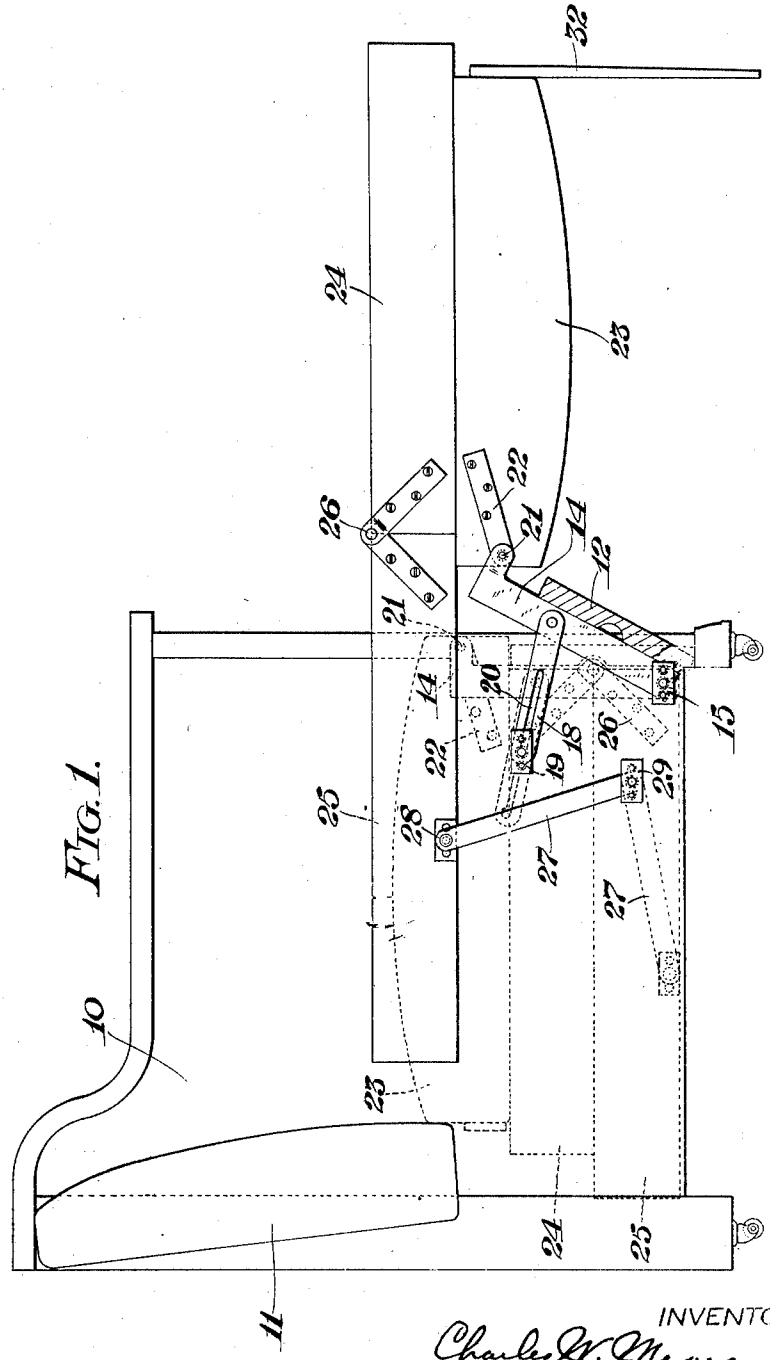


FIG. 1.

WITNESSES.

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2 SHEETS—SHEET 2.

FIG. 4.

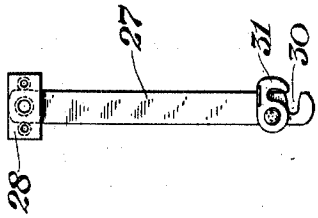


FIG. 3.

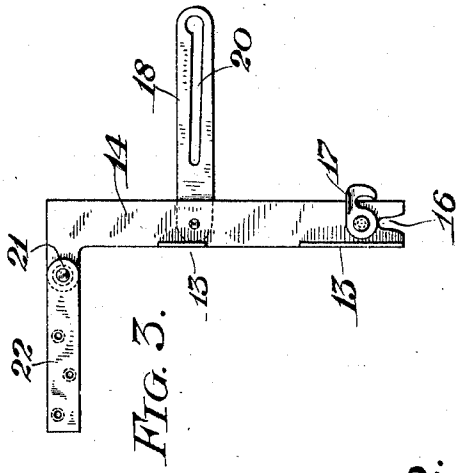
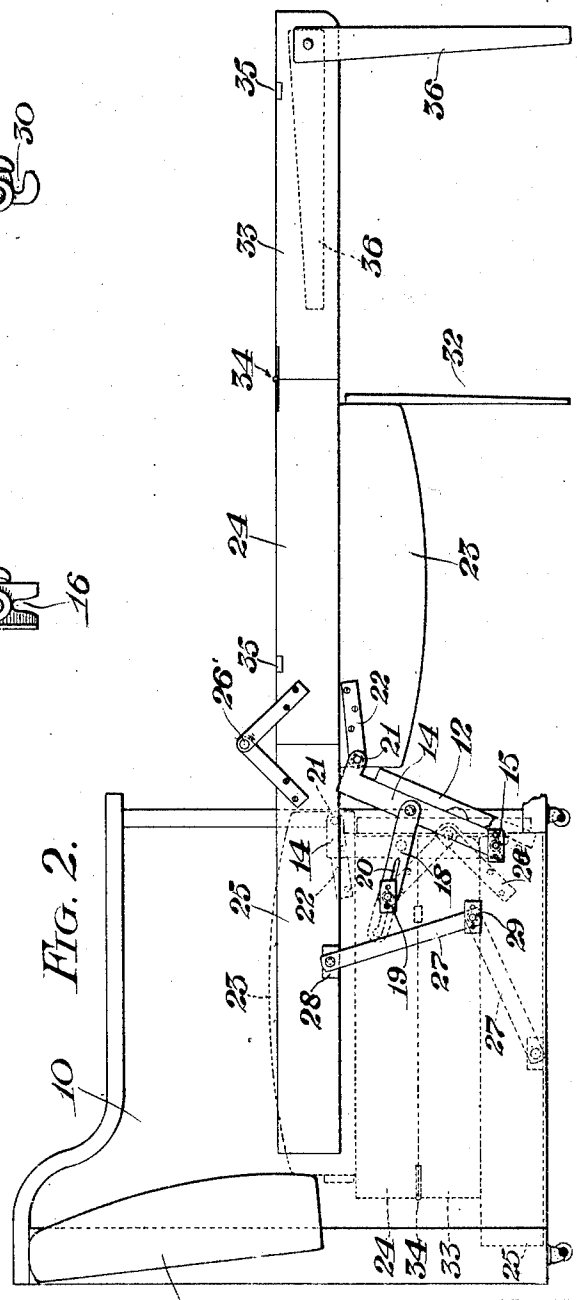


FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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BED-DAVENPORT.

1,349,620. Specification of Letters Patent. Patented Aug. 17, 1920.

Application filed December 4, 1918. Serial No. 265,306.

To all whom it may concern:

Be it known that we, CHARLES W. MEVES and FREDERICK G. HERRMANN, citizens of the United States, and residents of Sheboygan, Wisconsin, in the county of Sheboygan, have invented new and useful Improvements in Bed-Davenports, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention has for its object to provide a davenport of the type convertible into a bed and which is adapted to be opened or closed by a single movement which may be accomplished without difficulty.

Another object of the invention is to provide such a davenport with a minimum number of metal parts making it less expensive to manufacture.

Another object for the invention is to provide a davenport of this character which will maintain as nearly as possible the usual dimensions of davenports of the non-convertible type.

With the above and other objects in view, the invention consists in the bed davenport as herein claimed and all equivalents.

Referring to the accompanying drawings in which like characters of reference indicate similar parts in the different views:

Figure 1 is an end view of a bed davenport constructed in accordance with this invention, one end thereof having been removed and the front board shown in section;

Fig. 2 is a similar view of the same provided with the three section bed;

Fig. 3 is a detail view of one of the front rail irons with its connecting link and pivot plate; and,

Fig. 4 is a detail view of one of the radius rods.

In these drawings 10 indicates an end frame of which there are two connected by a rigid back member 11 and also by means of a swinging front rail 12. The front rail consists of a board secured to flanges 13 of a pair of front rail irons or swinging arms 14 pivotally mounted on pivot plates 15 secured to the end frames 10. This pivotal connection is preferably detachable by forming a notch 16 in the end of the front rail iron 14 to receive the neck portion of the headed stud projection of the pivot plate, while a hook 17 pivotally mounted on the front rail iron above the notch 16 is adapted to swing to also engage the neck portion of the stud in its curved slot and thus prevent accidental disengagement, though permitting disconnection when desired. The front rail 12 is capable of swinging on these pivotal connections from its upright position, shown in dotted lines in Figs. 1 and 2, to its inclined position, shown in full lines, and in the latter position it is suspended by slotted connecting links 18 pivotally mounted on the front rail irons and slidably engaging the headed studs of pivot plates 19 fixed on the end frames 10. The slot 20 of each connecting link terminates in an enlargement or opening through which the head of the stud may pass in assembling or dismembering the device.

Each front rail iron 14 has a forwardly extending projection at its upper end to which is pivotally connected at 21 a pivot plate 22 secured to the end of the frame of the seat member or cushion 23. On the pivotal connections thus formed the seat member may be inverted from its upright position shown in dotted lines to its extended position shown in full lines and rigidly secured to its bottom is a bed section 24. Another bed section 25 is connected to the bed section 24 by means of hinges 26 secured to the ends thereof and is supported by radius rods or swinging arms 27. Each radius rod is pivotally mounted on a pivot plate 28 secured to the bed section 25 and also to a pivot plate 29 secured to the end frame 10, the latter being preferably a removable connection by means of an open notch 30 and a swinging slotted hook 31 similar to the connection described for front rail iron 14 but preferably having the notch extending from the side of the rod instead of from the end.

The parts are so mounted that when in their closed position the bed section 25 is suspended by its hinge connection 26 and the radius rods 27 and resting thereon is the bed section 24 with the seat or cushion 23 above it. Though being of approximately the same width as the bed section 24, the seat or cushion 23 is slightly offset with respect thereto so that in its closed position it overhangs the front rail. The weight of the parts and the load supported thereby is taken by the pivot plates 15 and 29. When in the open or extended position a

further support is given to the bed section 24 by means of suitable legs 32 pivotally mounted on the seat member 23.

In order to change the device from its davenport form to its bed form, it is only necessary to grasp the rear edge of the seat member or cushion 23 and draw it upwardly and forwardly so that it swings on the pivotal connections 21. Meanwhile the bed section 25 is lifted by its pivotal connection with the bed section 24, moving with the seat; and the swing of the radius rods 27 past their horizontal position and toward their vertical position forces the parts forwardly to advance the position of the pivotal points 21 and bring the joint between the bed sections considerably beyond the normal front lines of the davenport. The front rail swings forwardly with the front rail irons 14, permitting the parts to clear the back 11 in their upward and forward movement and this advance movement of the front rail irons is limited by the engagement of the end of the slots 20 of connecting links 18 with the projecting studs of pivot plates 19. These pivot plates 19 then aid in the support of the bed.

The closing of the bed is accomplished by an equally simple single movement by swinging the bed section 24 upwardly and rearwardly on the pivotal connections 21, the parts returning to their normal positions by the action of the radius rods 27 forcing the bed section 25 rearwardly as it is lowered and thus returning the front rail 12 and the front rail irons 14 to their upright position.

Two bed sections will do when the length of the davenport gives sufficient length to the bed, but with a shorter davenport it is preferred to use three bed sections, as shown in Fig. 2, when another bed section 33 is connected by hinges 34 to bed section 24 so that it may fold thereon before the latter is raised to close the parts as above mentioned. In this case the straps forming the hinge 26 are of sufficient length to elevate the pivotal connection and permit the folded bed sections 24 and 33 to clear the bed section 25 as they are inverted. The usual bed lounge lock 35 may be provided for locking the bed sections 33 and 24 together and leg members 36 may be pivotally mounted on the sides of the bed section 33 to give support thereto in the usual manner.

The present invention dispenses with the heavy metal parts usual in bed davenports without sacrificing strength, and results in a corresponding economy in manufacture. It is found in practice that the metal used with the present invention may be safely reduced to twenty-six and a half pounds as compared with eighty pounds used in former constructions. Furthermore, the device is easy to operate owing to the single motion required in opening or closing, and because of the advancing and receding pivotal connections and swinging front rail the davenport seat may be made low so that it has the standard height of a stationary davenport. It is also of standard depth from front to rear, making it more comfortable, instead of being of greater depth as heretofore necessary in order to accommodate bed sections of the required width. The over-all depth of the davenport is correspondingly reduced to approximately the standard depth of stationary davenports, making it more ornamental in appearance as more closely resembling the stationary davenport. The seat may be made with a spring edge on all sides or with a hard edge on the sides and back and a spring edge in front, as desired.

The movable parts may be readily removed from the frame by swinging the hooks 17 and 31 to release the studs of the pivot plates and by disengaging the connecting links 18 from the headed studs engaged by them.

What we claim as new and desire to secure by Letters Patent is:

1. In a bed davenport, the combination of a fixed back, a seat member, forwardly swinging arms on which the seat member is pivotally mounted, means for limiting the movement of said arms, a bed section on the bottom of the seat member, a second bed section hingedly connected with the first bed section, and swinging arms on which the second bed section is swingingly mounted, the connection between the first named arms and the seat member being below the end of the second bed section and the sets of arms being inclined in opposite directions when the sections are extended, whereby both sets of arms serve to support the second bed section.

2. In a bed davenport, the combination of a frame, two sets of swinging arms, a front rail mounted on one set of arms, the arms of each set being pivotally mounted on the frame, a bed section swingingly mounted on each set of arms, a hinge connection between said bed sections, the connection between the arms and sections being such that both sets of arms form the sole support for one bed section and one set of arms forms the sole support for one end of the other bed section when said sections are in extended position.

In testimony whereof we affix our signatures, in presence of two witnesses.

CHARLES W. MEVES.
FREDERICK G. HERRMANN.

Witnesses:
J. W. KENT,
F. A. LIMMERMANN.