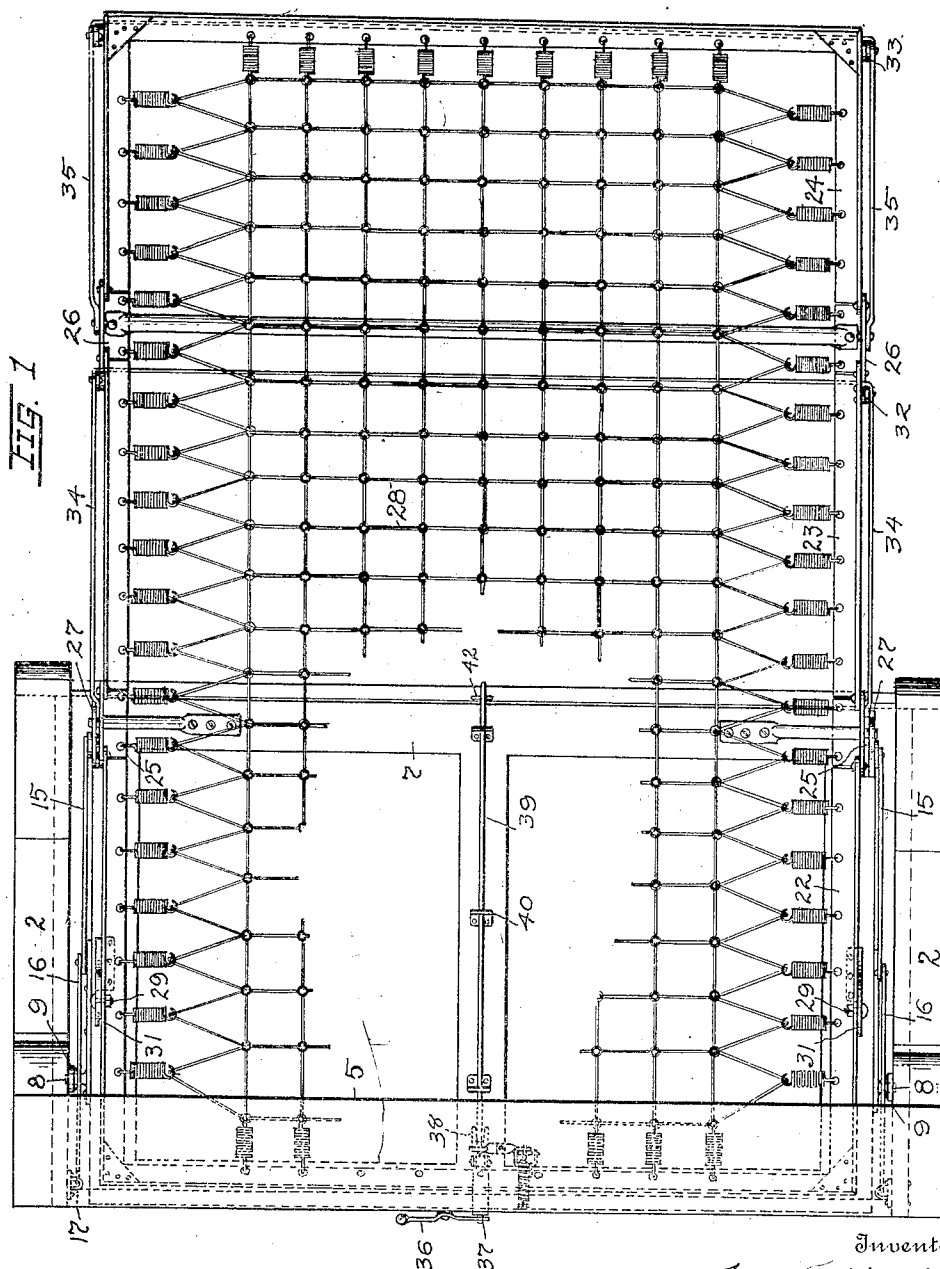


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DAVENPORT BED.
APPLICATION FILED JULY 15, 1918.

Patented Aug. 10, 1920.
3 SHEETS—SHEET 1.



Witness
Geo. Kricka.

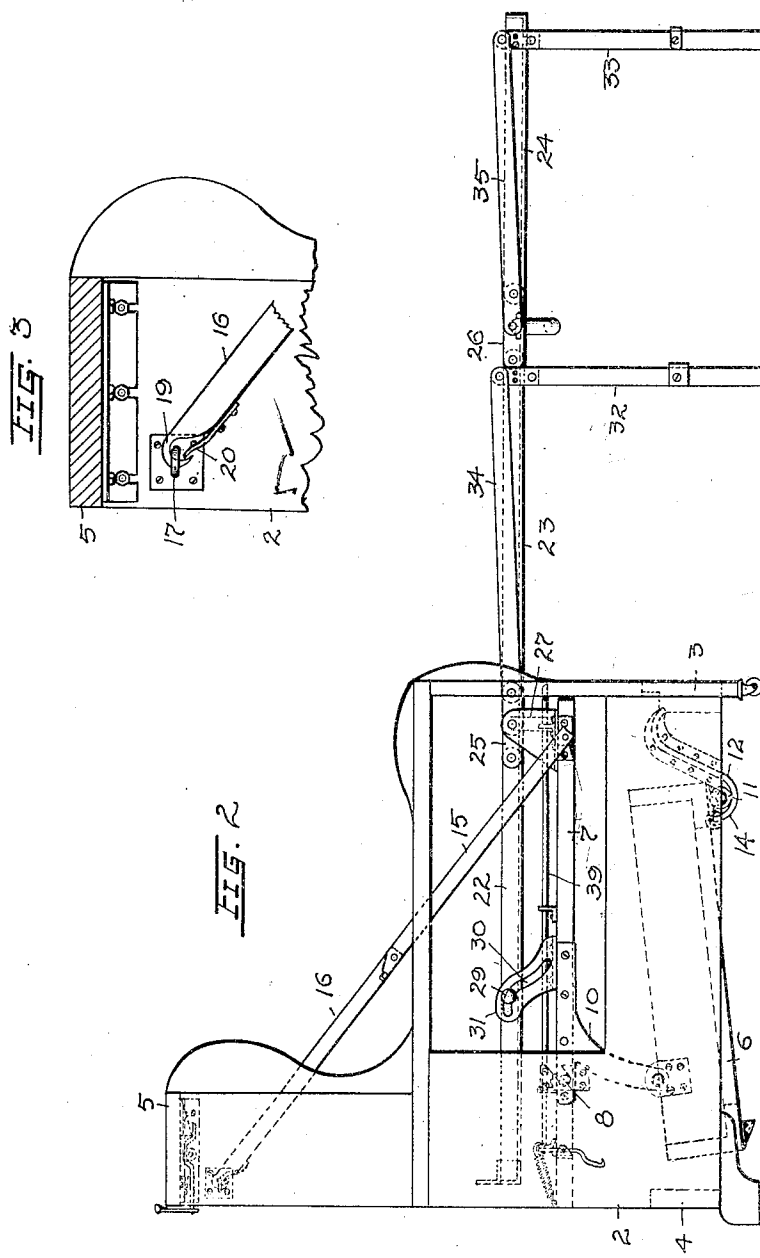
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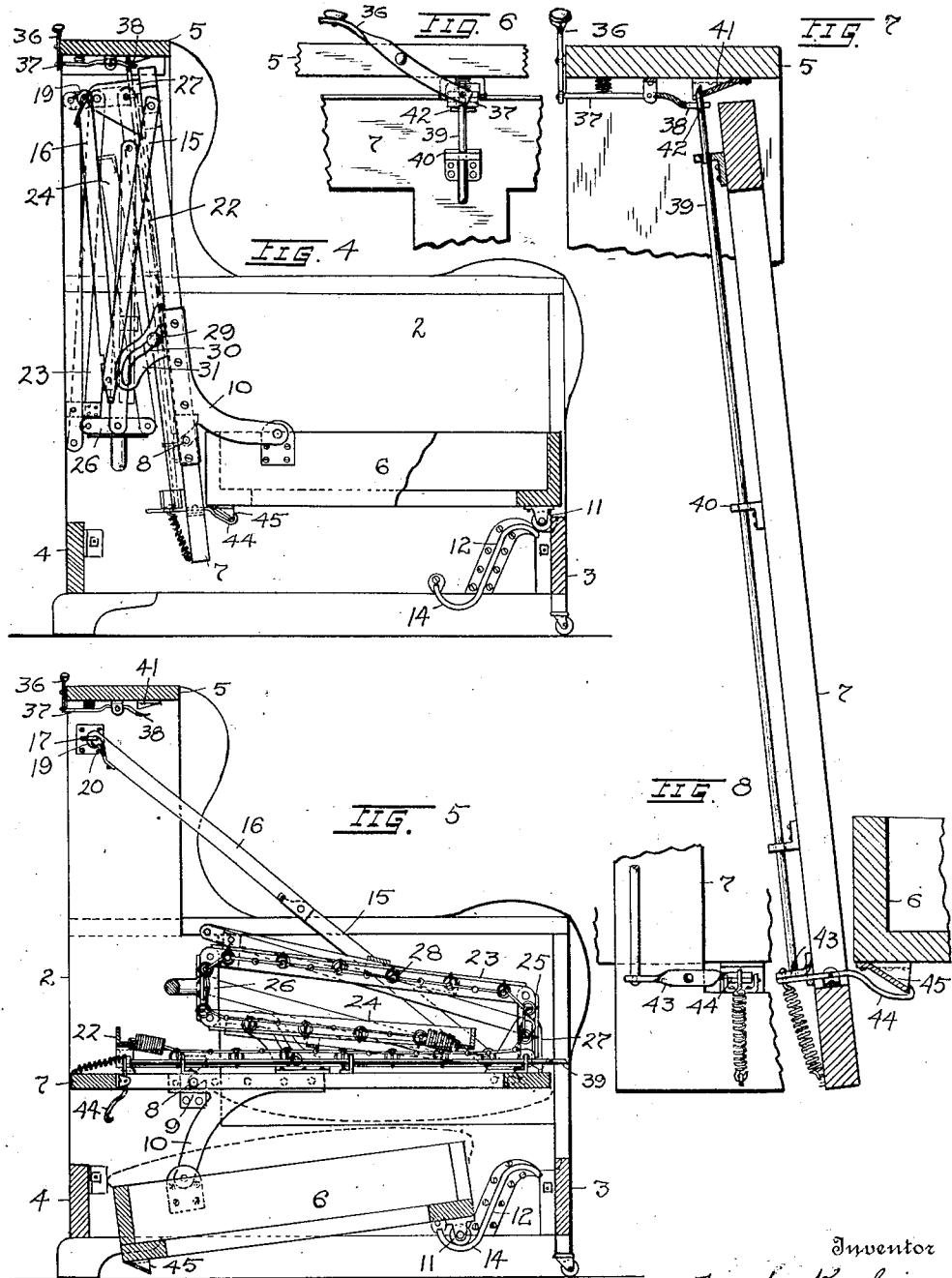
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3 SHEETS—SHEET 3.

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UNITED STATES PATENT OFFICE.

JACOB KRONHEIM, OF CLEVELAND, OHIO.

DAVENPORT-BED.

1,349,162.

Specification of Letters Patent.

Patented Aug. 10, 1920.

Application filed July 15, 1918. Serial No. 244,892.

To all whom it may concern:

Be it known that I, JACOB KRONHEIM, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful improvements in Davenport-Beds, of which the following is a specification.

This invention relates to an improvement in davenport beds, the primary object being to provide an exceptionally compact and comfortable folding bed and settee or couch. The conception involves the provision of a comfortable upholstered seat and back rest for the couch, including means adapted to carry said seat rearwardly into the frame of the couch when the back rest is lowered preparatory to unfolding the bed sections, and a still further object is embodied in the means wherewith the bed sections and bedding may be folded entirely within and behind the upholstered back rest of the couch. The back rest, the seat, and the bed, are independent and as supported and connected each part may be built up and padded to give the highest degree of comfort obtainable. Other objects are also embodied in the various details of construction, substantially as hereinafter described.

In the accompanying drawings, Figure 1 is a plan view of my davenport bed unfolded for use as a bed. Fig. 2 is an end view of the bed unfolded. Fig. 3 is a detailed view of the snap lock for securing the bed braces to the couch frame. Fig. 4 is a cross section of the bed and couch frame and an end view of the folding parts within the frame as said parts appear when folded. Fig. 5 is a cross section of the bed with the bed section partly unfolded and the seat lowered within the frame. Figs. 6, 7 and 8, are different views of the locking device for the folding bed section. In all of the foregoing views, the upholstering and bedding has been omitted to more clearly indicate the bed details.

The invention comprises a wooden knock-down couch frame consisting of a pair of upright ends 2, a front and a rear base board 3 and 4, respectively, and a top rail 5. Any suitable mode of fastening may be used to unite the said frame parts together.

The couch seat comprises a shallow box-like frame 6, preferably of wood and rec-

tangular in formation, while the back rest for the couch comprises a rectangular wooden frame 7 having pivots 8 which are removably seated in slotted keepers 9 fixed at the inner sides of the ends 2 of the couch frame. A pair of projecting arms 10 are fastened to the ends of the pivoted frame 7, and the seat frame 6 is pivotally supported upon the outer ends of these arms. Thus, when the parts are folded for use as a couch, the seat frame 6 is supported in an elevated position at its rear by the arms 10, while the front portion of the seat frame is upheld by rollers 11, fixed to the bottom of the seat frame and resting at the front end of an inclined track 12 which is affixed to the inner side of each end 2 of the couch frame. When the bed is unfolded, the arm 10 lowers the seat frame and at the same time carries said frame to the rear while the rollers 11 ride down the inclined track until seated within the curved pocket 14 at the bottom thereof. This brings the seat entirely within and even below the base boards of the couch frame and sufficiently remote from the pivot frame 7 to avoid all contact therewith and with ample space therebetween for a set of helical springs and a relatively thick body of upholstering upon both the seat frame 6 and the back rest or frame 7. However, the springs and upholstering have been omitted from the drawings to avoid concealment of other and more essential parts.

It will be noted that pivot 8 is relatively near the rear or bottom end of frame 7. Consequently, the free end of said frame requires a support when unfolded and lowered to a horizontal plane. Therefore, and in order to avoid any obstruction for the moving parts at the front of the couch frame, and especially any obstruction to the movement of the seat frame 6 when it is carried forward and upward, I provide a pair of folding braces 15 and 16 for the free end of the couch frame 7. Brace 15 is pivotally secured to frame 7 and brace 16 has a hinged or jointed union with brace 15, and a ring or staple 17 located and fastened to the inner face of the upright extension of the couch ends 2 is adapted to be engaged by a hook 19 on the end of brace 16. A flat spring 20 serves to safeguard this free-turning connection, and a shouldered pivot joint is preferred between the braces 15 and

16. In this way, when the back of the couch comprising pivoted frame 7 is tilted forward and lowered, the braces 15 and 16 will unfold until straightly alined to limit the unfolding movement, thereby firmly supporting the said frame. Such support is essential in view of the lack of any other support for the three-part mattress at the point where the sections thereof are arranged to fold within the couch frame.

One section of the folding mattress comprises an angle iron frame 22 which is adapted to occupy the space within the couch frame when the parts are unfolded to a horizontal position, and a second bed frame section 23, hereinafter referred to as the middle section, is adapted to be unfolded immediately at the front of the couch frame, while a third angle iron frame 24 forms an end extension of the mattress whereby a full-length bed frame may be obtained when the said three sections are all unfolded and placed in the same horizontal plane substantially as shown in Figs. 1 and 2. The respective folded sections 22, 23 and 24 are hinged together by relatively short connecting links 25 and 26, the links 25 being pivotally supported at their middle upon suitable brackets 27 fastened to the upper or rear face of wooden frame 7. These links stand apart from frame 7 a suitable distance so that when all the sections are unfolded the first section 22 will be raised some distance above and apart from frame 7, thus affording ample space beneath the stretched bed spring 28 for it to sag or give under a load when the bed is occupied. Moreover, it is desirable to elevate the bed sections a given distance above the floor for comfort in sitting upon the edge of the bed and in getting in and out of the bed.

But, inasmuch, as the section 22 is raised at its front end by the unfolding movement of link 25, it is also necessary to raise the rear end of section 22 to the same level. This result is accomplished by a lateral stud or projection 29 on the ends of section 22 riding upwardly in an inclined curved slot 30 in a rigid bracket 31 on frame 7. Explaining more fully, as section 22 is lifted at its front end by a turning movement of link 25, the said section is also forced to the rear and the stud or projection rides upward in slot 30 until the stud occupies the straight portion in the slot as shown in Fig. 2.

The supports for the front end of middle section 23 and the front end of extension section 24 comprise separate legs 32 and 33, which are pivoted to their respective border frames and operated by links 34 and 35 in a manner now well-known in this art.

Now returning to the folding of the bed sections and their placement within the couch frame it is essential that some means be provided for locking the said frame 6

and the back frame 7 securely together, as well as locking the back frame securely within the couch frame. I provide a double lock for this purpose which is operated by a single lever 36 pivotally mounted at the rear edge of the top rail 5, which lever engages and operates a pivoted spring-pressed arm 37 mounted beneath rail 5 and having a forked extremity 38 which is adapted to receive a locking rod 39 slidably carried in metal angle pieces 40 at the back of wooden frame 7, (see Fig. 7). The rounded or beveled upper extremity of rod 39 is adapted to engage a beveled catch 41 on rail 5 when the back frame is turned underneath said rail, and in so doing the rod enters the forked extremity of arm 37. This arm then is adapted to engage a cross pin 42 in said rod and thereby depress the rod to unlock its upper extremity from catch 41. Actuation of the rod in this manner also tilts a lever 43 and a second pivoted arm 44 at the bottom of frame 7 and disengages the hook end of arm 44 from a catch 45 mounted upon the bottom of seat frame 7. Otherwise, neither the seat nor the back rest may be turned on their respective pivots.

In unfolding operations, the parts are first unlocked by depressing lever 36, and then the back rest or frame 7 may be drawn forward and turned on pivot 8 until the seat frame 6 is shifted entirely within the bottom of the couch frame and the back rest 7 is lowered to the limit allowed by braces 15 and 16. The doubled mattress sections 23 and 24 may then be unfolded together, and in so doing, the inner section 22 is raised to a higher level as hereinbefore described, and all three sections then occupy the same horizontal plane.

What I claim is:

1. In a davenport bed, a tilting back rest and a couch seat pivotally connected therewith, a couch frame for said parts; and folding braces at each side connected with the rear and top of the couch frame and the front of the said back rest adapted to support said back rest when lowered.

2. In a davenport bed, a couch frame, a back rest pivoted within said frame, folding braces connected with said frame and back rest adapted to support the back rest when lowered, and a sectional bed mattress frame supported upon one side of said back rest having folding legs.

3. In a davenport bed, a couch frame having a top rail, a back rest pivoted within said couch frame, means beneath said top rail to lock said back rest against tilting movements, a couch seat pivoted to said back rest, means to lock said seat from turning on its pivot, and a common operating device for both locking means.

4. In a davenport bed, a couch frame having a top rail, a back rest pivoted within

said frame having a folding bed mattress at the rear side thereof, a couch seat pivotally connected with said back rest, a locking rod extending transversely of said back rest, a
5 lever and catch at said top rail adapted to be engaged by said rod, and a lever and catch for said couch seat adapted to be en-

gaged and disengaged by the actuation of said rod.

Signed at Cleveland, in the county of 10 Cuyahoga, and State of Ohio, this 12 day of July, 1918.

JACOB KRONHEIM.