

J. L. TANDY.
 COMBINED COUCH, COT, AND DAVENPORT.
 APPLICATION FILED JUNE 19, 1906.

904,373.

Patented Nov. 17, 1908.

2 SHEETS—SHEET 1.

Fig. 1

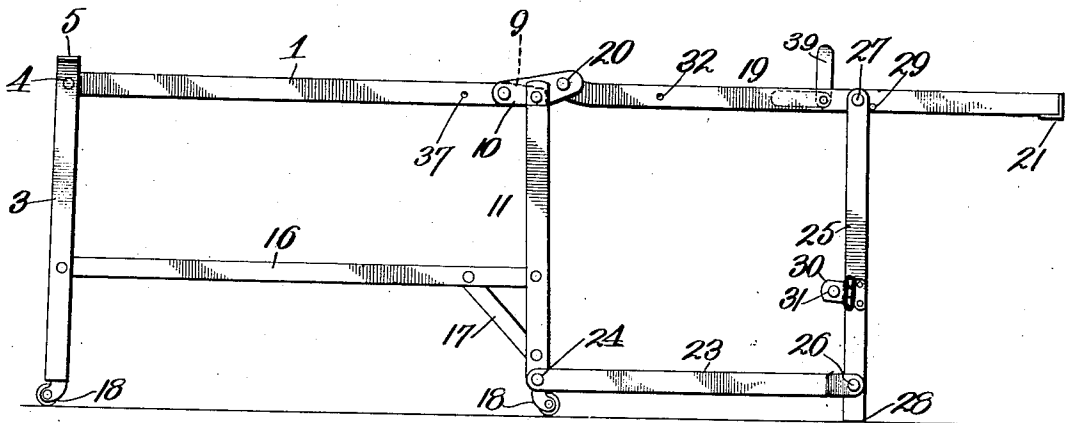
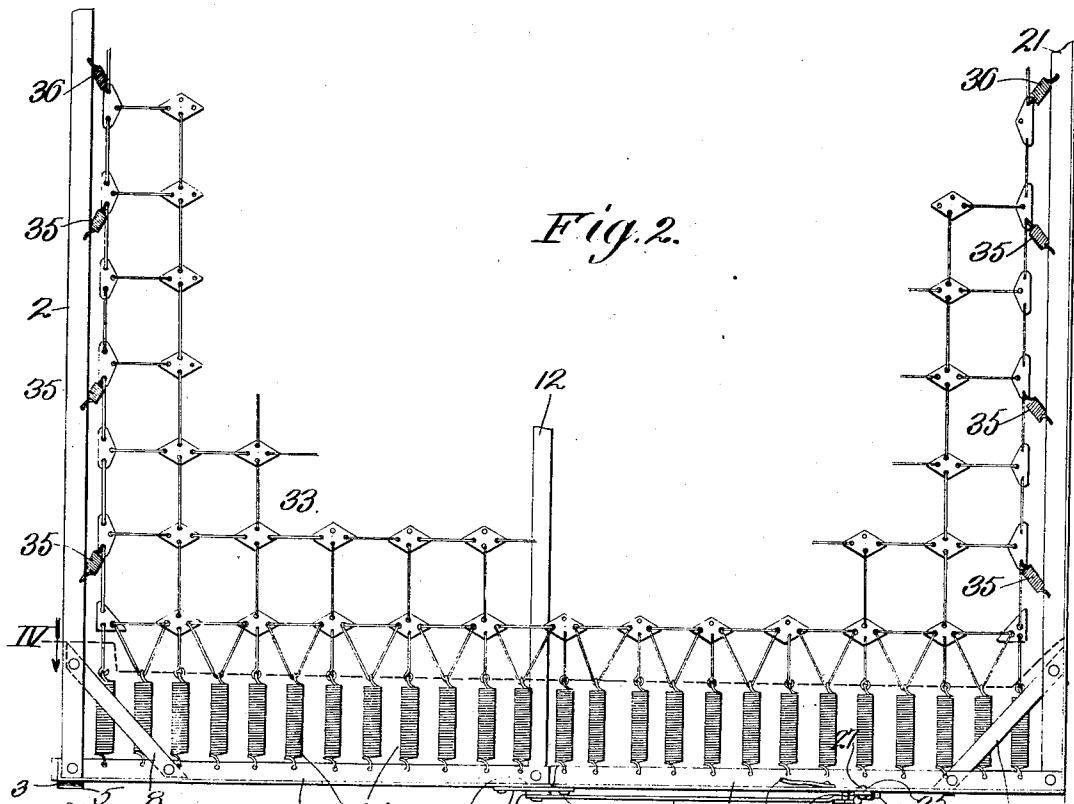


Fig. 2



Witnesses

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H. C. Rodgers

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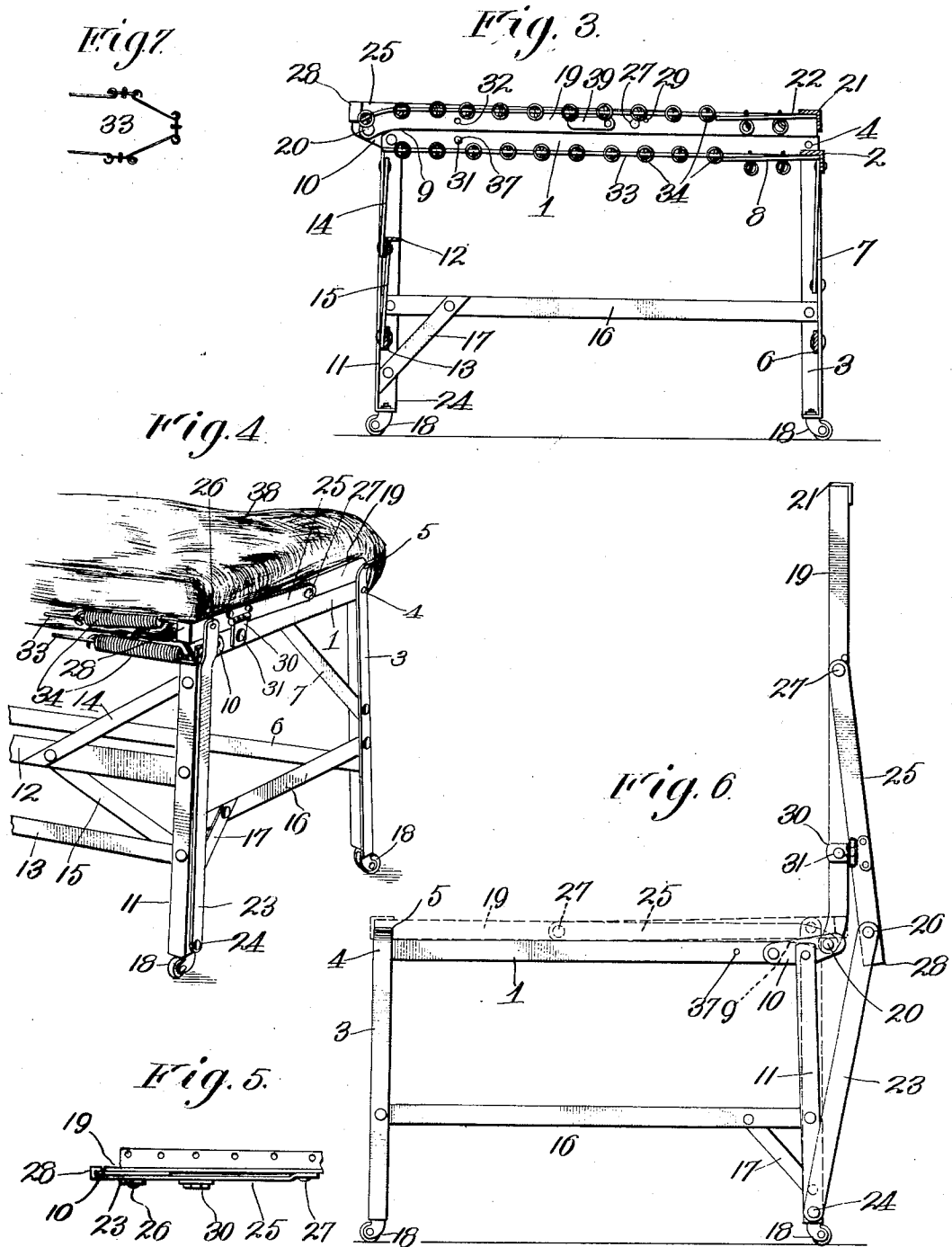
By George F. Thorpe atty.

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UNITED STATES PATENT OFFICE.

JOHN L. TANDY, OF KANSAS CITY, MISSOURI.

COMBINED COUCH, COT, AND DAVENPORT.

No. 904,373.

Specification of Letters Patent.

Patented Nov. 17, 1908.

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To all whom it may concern:

Be it known that I, JOHN L. TANDY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in a Combined Cot, Couch, and Davenport, of which the following is a specification.

This invention relates to a combined cot, couch and davenport, and my object is to produce an efficient and reliable device of this character which embodies the desirable features of simplicity, strength, durability and cheapness of construction.

With this general object in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1, is an end elevation of the device as arranged as a cot. Fig. 2, is a top plan view of a part of the device as arranged in Fig. 1. Fig. 3, is a vertical transverse section of the device arranged as a couch, the section being taken contiguous to one end of the same. Fig. 4, is a detail perspective view of one end of the device when arranged as a couch and equipped with a mattress or cushion. Fig. 5, is a plan view of part of the device when arranged as shown in Figs. 3 and 4. Fig. 6, is an end view of the device arranged as a davenport. Fig. 7, is a vertical cross section taken through the folded edge of the spring mattress to show more clearly the relative positions of the parts thereof when the device is arranged as a couch.

In the said drawings, 1 indicates a pair of angle bars connected at corresponding ends by an angle bar 2, said bars 1 and 2 constituting the end rails and side rail of a horizontal frame.

3 indicates angle-bar legs pivoted at 4 to rails 1 and terminating in curved end portions 5, and said legs 3 are connected by a longitudinal bar 6. Said legs are also braced from side rail 2 by the inclined braces 7, and the end rails and side rail are braced by substantially horizontal braces 8. The upwardly projecting flanges of end rails 1 are tapered downward at their rear ends at 9, and secured rigidly to and therefore forming extensions of the outer sides of said

rails and projecting beyond and slightly above said tapered ends are plates 10, and pivoted to said plates on one of the bolts securing them to rails 1 are legs 11, in the form of angle bars. Legs 11 are connected by a longitudinal angle bar 12, and by a longitudinal bar 13.

14 and 15 indicate braces between the legs 11 and angle bar 12, said braces converging toward the latter. The legs 11 are connected by end bars 16, and said end bars are braced from the legs 11 by braces 17, all of the legs being mounted upon casters 18 of any suitable or preferred type.

A rectangular frame of substantially the same proportions as the leg-supported frame described, comprises angle end bars 19 curved at one end and pivoted to and between plates 10 as at 20. 21 indicates a side rail connecting the opposite ends of rails 19, and 22 braces connecting the angle rail 21 with angle rails 19. Break-joint braces each comprise a lower bar 23 pivoted at 24 to the lower end of one of the legs 11 and the upper bar 25 pivoted near its lower end to bar 23 at 26; and at its upper end to the contiguous angle bar 19, at 27, the extreme lower end of bar 25 having a hook 28 to form a substantial foot when the device is arranged as a cot, though said hook is not designed primarily for a foot.

29 indicates projections for rails 19, such as rivet heads, to limit the swinging movement of brace bars 25 in one direction, and 30 indicates pivoted catches carried by said brace bars 25, having pins 31 adapted to engage the holes 32 in end angle rails 19, when the device is arranged as a davenport. The legs 3 and 11 diverge downwardly by preference so as to form a more substantial support.

When the device is arranged as a cot, the parts occupy substantially the position shown in Fig. 1 with the hooks 28 of brace bars 25 resting upon the floor as a support for the frame constituted by rails 19 and 21, which frame when so disposed occupies the same horizontal plane as the first-named or leg-supported frame. The spring mattress 33 is secured at its ends to retractile springs 34 secured to the horizontal flanges of rails 1 and 19, and connecting the side margins of said spring mattress to rails 2 and 21 are springs 35 and 36, said springs converging inwardly as shown so that when weight is imposed upon the mattress a longitudinal or tensile strain shall be exerted by the mattress

on rails 2 and 21, instead of the direct downward pull which would be solely imposed if the springs were arranged at right angles to the rails. The mattress is preferably of such proportion that the central set of springs 34 is arranged almost in line with pivot 20 and in line with said springs are correspondingly located plates and links of the mattress, it being understood in this connection that this type of mattress, other than its peculiar attachment to the frames, is well known and needs no detail description.

When the device is to be used as a davenport, it is unfolded from the position shown in Fig. 3 to the position shown in Fig. 6, the catch pins 31 being thrown into engagement with holes 32 to secure the parts in their new position in which the leg-supported frame and the corresponding portion of the mattress forms the seat, and the companion hinged frame and corresponding portion of the spring mattress forms the back of the davenport.

When the device is to be used as a couch the hinged frame consisting of rails 19 and 21 is swung from the position shown in Fig. 1—or Fig. 6 after the catches are disengaged from rails 19—to the position shown in Figs. 3 and 4, in which position it will be noticed that the vertical arms of rails 19 rest upon the vertical arms of rails 1 with the curved ends of the former extending downward over the tapered ends of the latter as shown clearly in full lines Fig. 3 and in dotted lines Fig. 6. The frames are then locked rigidly in this position by causing the catch pins to engage holes 37 in rails 1, as indicated by the position of the catch in Fig. 3. When the parts are thus folded the brace bars 23 extend approximately vertical and the brace bars 25 approximately horizontal with their hooks 28 engaging the ends of plates 10, projecting beyond the corresponding tapered ends of rails 1, as shown clearly in Fig. 5, the engagement of said hooks and plates preventing the parts from being sprung outwardly from the ends of the couch by the pressure of the occupant's foot or otherwise. In this folding operation to produce a couch, the curved ends of legs 3 act to guide rails 19 down upon rails 1 should there be any looseness in the hinge connection between said rails, and in this folded position the central portion of the spring mattress occupies substantially the position shown in Figs. 3 and 7, it being also noticed that there is a space between the angle rails 2 and 21 at the opposite side of the couch. When arranged as a couch the legs 11 form the front legs and the legs 3 the rear legs, whereas when arranged as a davenport, the reverse of this statement is true. The space between the upper and lower portions of the spring mattress forms a convenient receptacle for the bedding, and

in practice the mattress proper 38, is arranged as shown in Fig. 4 when the device is used as a couch, that is to say, half of it lies between the folded portions of the spring mattress and the other half is bent upwardly around rail 21 and rests upon the upper portion of the spring mattress so as to form a cushion. In practice the mattress may be provided with suitable draperies to hide the upper portion of the framework or a couch cover, not shown, may and is preferably employed for this purpose.

When the device is used as a davenport or as a cot, the clamps 39 pivoted to the inner sides of rails 19 will be employed to pinch or clamp a portion of the mattress against said rails so as to prevent any possibility of its slipping, this securing of the mattress proper being especially desirable during the folding operations, and also desirable when the device is used as a davenport, in which case the clamped portion of the mattress will form a cushion for the back of the davenport against which the occupant may lean.

For convenience in shipping, the bolts uniting cross bars 16 to the legs 3 and 11 and the bolts connecting braces 17 to cross bars 16 will be removed to permit the legs to be folded against the underside of rails 1. By this arrangement the device will occupy about one-fourth or one-third of the space taken by the device when arranged as a couch.

With the spring mattress doubled as hereinbefore explained and the mattress proper likewise doubled, the doubled thickness of the latter coöperates with that of the former in providing an exceedingly strong seat which will not sag materially, the central line of the plates and links forming the spring mattress occupying substantially the relation shown in Fig. 7 and thus further tending to stiffen and strengthen said seat, and it will be noticed by reference to Fig. 2, that the central and two adjacent springs 34 will coöperate in tensioning the folded edge of the spring mattress. In Fig. 3, the springs 34 in the vertical planes of braces 8 and 22 are deflected slightly out of their proper course by said braces as shown at the right hand corner of Fig. 3, though the deflection is not so apparent in the actual device as in said figure.

From the above description it will be apparent that I have produced a combined cot, couch, and davenport possessing the features of advantage enumerated as desirable and I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described as various modifications will suggest themselves to one skilled in the art.

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

1. In a device of the character described, a frame comprising end-rails and a side-rail, legs supporting said frame and secured at their upper ends to the end-rails thereof, a
 5 second frame consisting of a side rail and two end rails, means for pivotally connecting the end rails of said frames at their opposite ends from said side rails and between the side rail of said second frame and the
 10 contiguous legs of the first-named end-rails, break-joint braces pivotally connecting the end rails of the said second frame with the contiguous legs of the first-named end-rails and conjointly of greater length than the
 15 distance between their pivotal points of connection with said legs and the end rails of the second frame, and catches pivoted to the bars of said braces connected to said end rails of the second frame and adapted to
 20 engage said end rails when the said second frame occupies an upright position and to engage the end rails of the first-named frame when the second frame is folded down upon said first-named frame.

2. In a device of the character described, a frame consisting of a side rail and end rails, legs pivoted to the opposite ends of the end rails, a removable brace bar connecting the legs of each end rail, a second frame consisting of a side rail and two end rails, means
 30 for connecting the end rails of said frames at their opposite ends from said side rails and between the side rail of said second frame and the contiguous legs of the first-named end-rails, break-joint braces pivotally connecting the end-rails of the second frame with the contiguous legs of the first-named
 35 end-rails and conjointly of greater length than the distance between their pivotal points of connection with said legs and the end rails of the second frame, and catches pivoted to the bars of said braces connected to said end rails of the second frame and adapted to engage said end rails when the
 40 second frame occupies an upright position and to engage the end rails of the first-named frame when the second frame is folded down upon the said first-named frame.

3. In a device of the character described, a frame comprising end rails having holes or openings, and a side rail, legs supporting said frame, longitudinal and transverse
 50 braces between said legs, a second frame comprising a pair of end rails having holes or openings and a side rail, and hinged at its railless side to the railless side of the first-named frame outward of the vertical plane of the contiguous legs of the latter,
 55 break-joint braces pivotally connecting the said contiguous legs with the end rails of the second frame and each consisting of a pair of bars, and catches hinged to the bars of said break-joint braces pivoted to the end

rails of the second frame and provided with
 65 pins to engage the holes or openings of the end rails of the first-named frame or the second frame accordingly as the latter is folded down upon the first-named frame or is occupying an upright position. 70

4. In a device of the character described, a frame comprising a side rail and end rails tapered downward at their upper edge at their opposite ends from the side rail, plates secured to and projecting above and beyond
 75 the tapered end of the end rails, legs supporting said frame, a second frame comprising a side rail and end rails with the latter in the same vertical plane as the end rails of the first-named frame and pivoted to the
 80 rearwardly projecting ends of said plates and curved at said pivoted ends so as to fit over the tapered ends of the first-named rails under certain conditions, and bars pivoted together and to the end rails of the hinged
 85 frame and contiguous legs of the first-named frame.

5. In a device of the character described, a frame comprising a side rail and end rails tapered downward at their upper edge at
 90 their opposite ends from the side rail, plates secured to and projecting above and beyond the tapered end of the end rails, legs supporting said frame, a second frame comprising a side rail and end rails with the latter
 95 in the same vertical plane as the end rails of the first-named frame and pivoted to the rearwardly projecting ends of said plates and curved at said pivoted ends to fit over the tapered ends of the first-named rails under certain conditions, bars pivoted together and to the end rails of the hinged frame and contiguous legs of the first-named frame, and a foldable spring mattress attached to
 100 said frames. 105

6. In a device of the character described, a frame having two end rails and one side rail, plates secured to the end rails and projecting beyond the railless side of the frame, legs supporting said frame, a second frame
 110 hinged to said plates contiguous to the railless side of the first-named frame, bars pivoted to the ends of the hinged frame and provided with intumed hooks at their free ends, and bars pivotally connected to the
 115 legs of the first-named frame and to said pivoted bars near their hook ends and adapted to cooperate with the latter in causing said hooks at certain times to engage the ends of said plates projecting beyond the
 120 railless side of the first-named frame.

In testimony whereof I affix my signature, in the presence of two witnesses.

JOHN L. TANDY.

Witnesses:

FRANK R. GLORE,
 G. Y. THORPE.