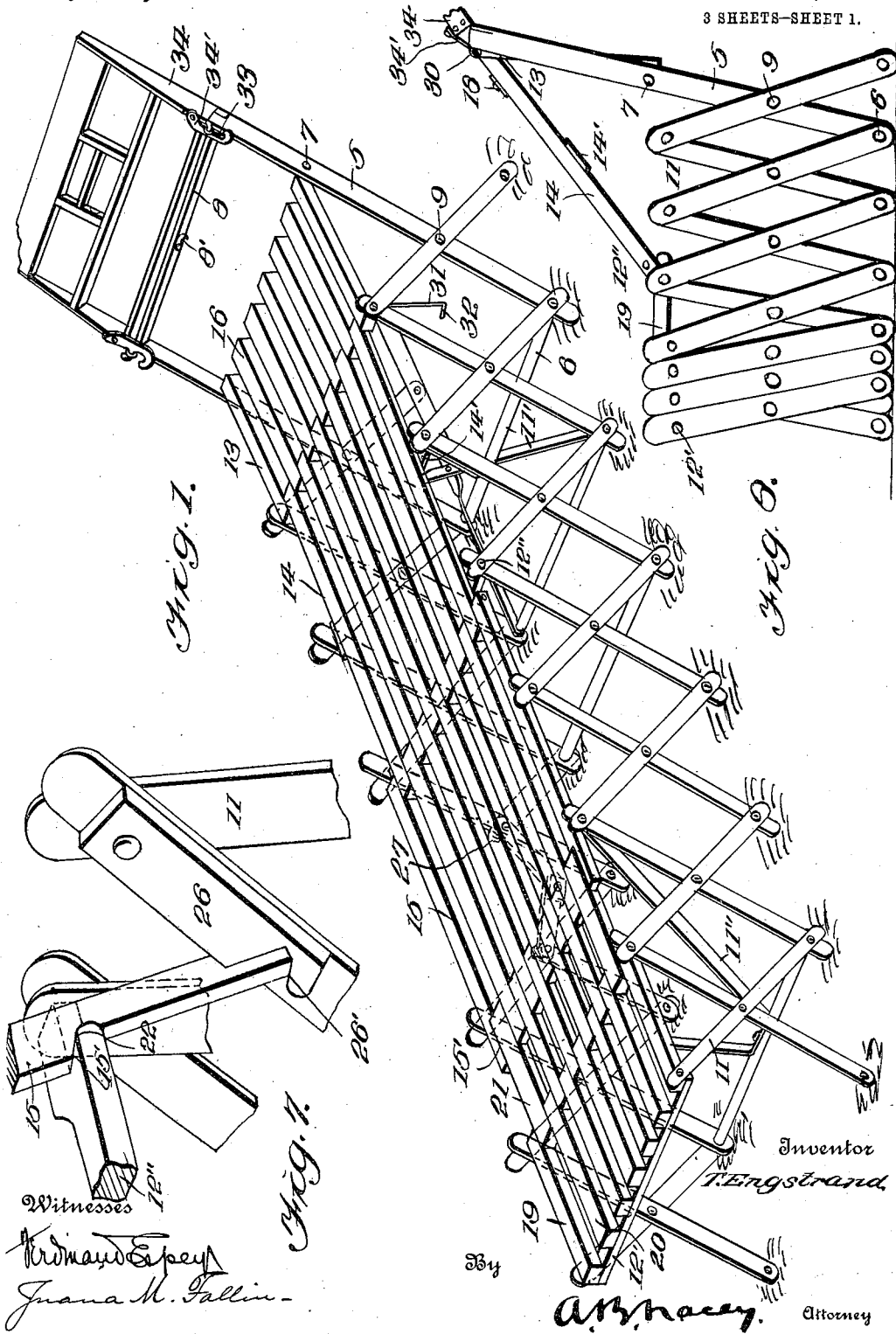


T. ENGSTRAND.
COMBINATION BED, CHAIR, AND TABLE.
APPLICATION FILED NOV. 8, 1911.

1,046,163.

Patented Dec. 3, 1912.

3 SHEETS—SHEET 1.



Witnesses
Edmund E. Epey
J. Anna M. Fallin

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Fig. 2.

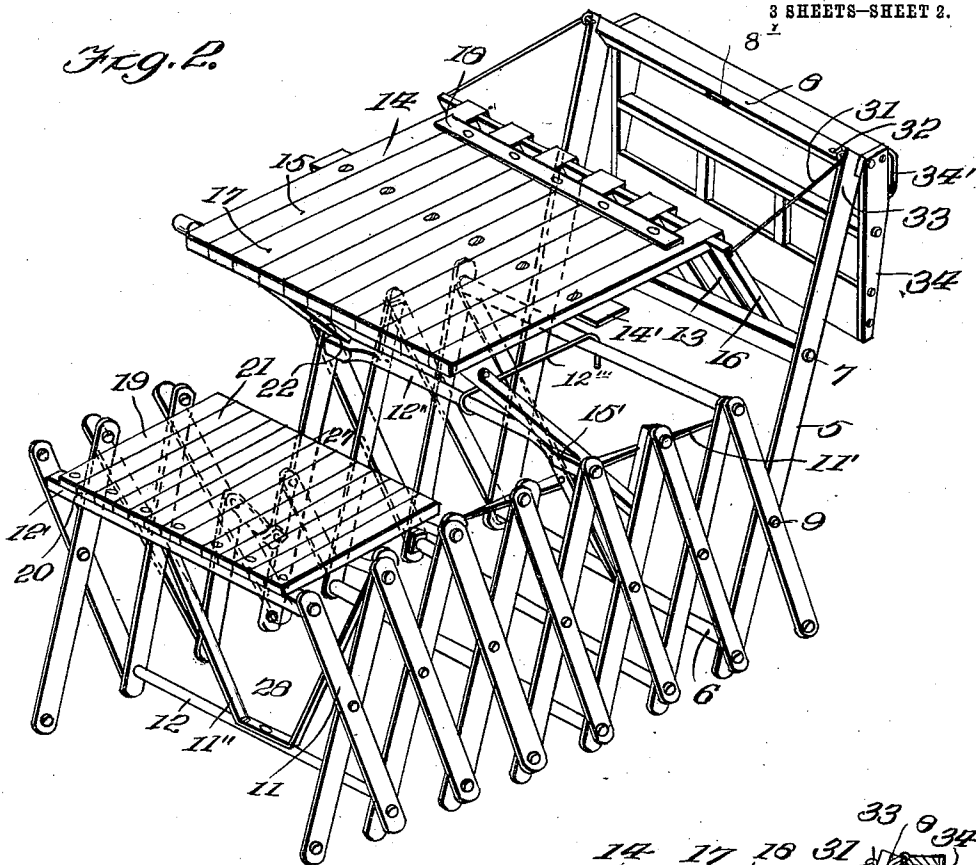
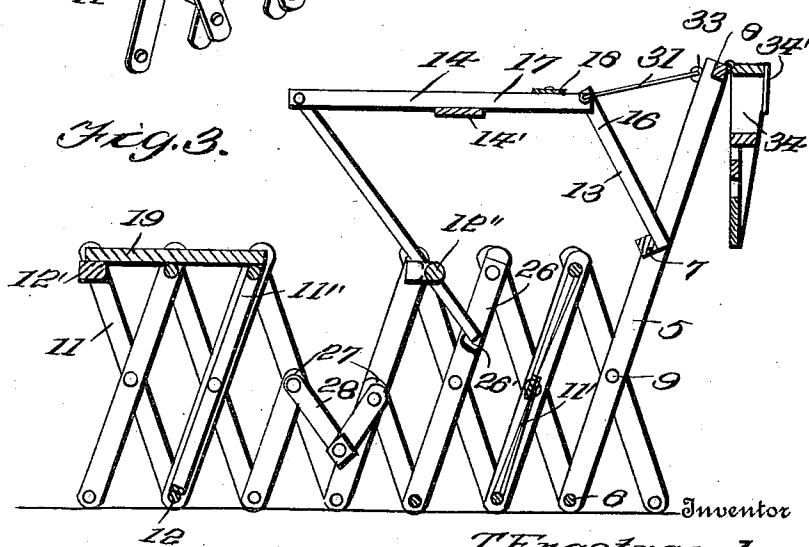


Fig. 3.



Witnesses
Admair & Espey
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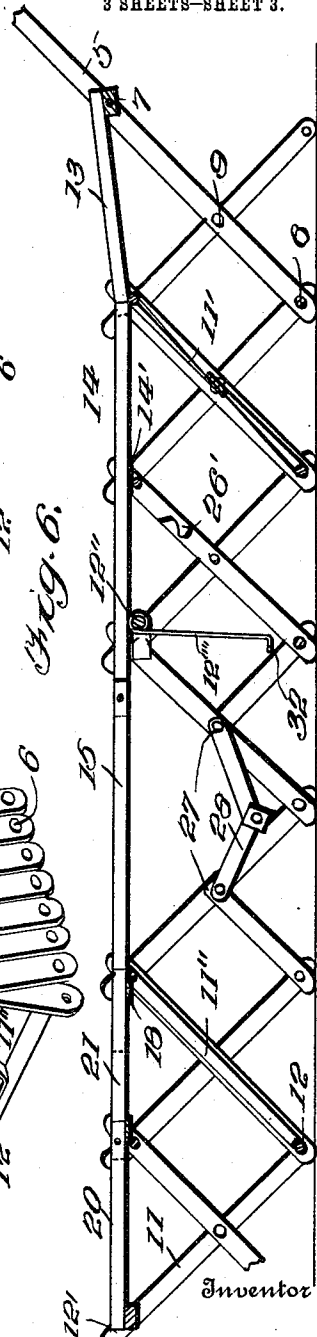
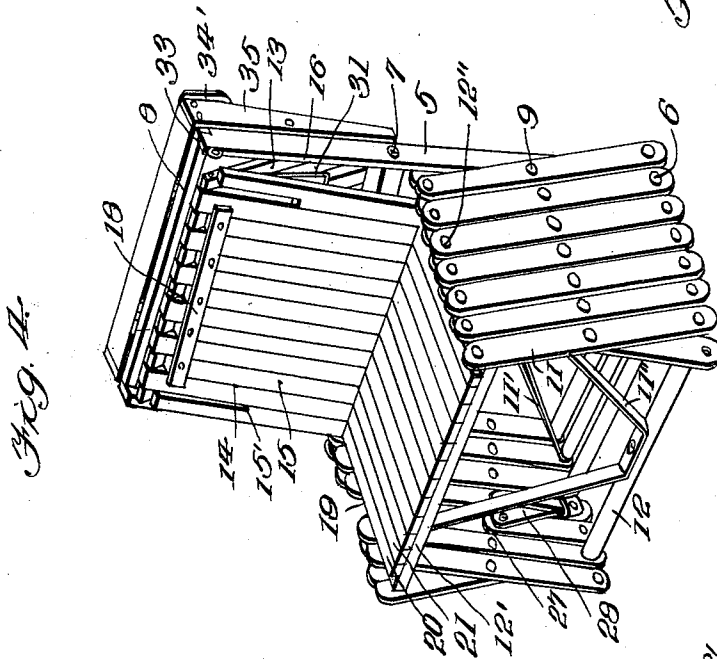
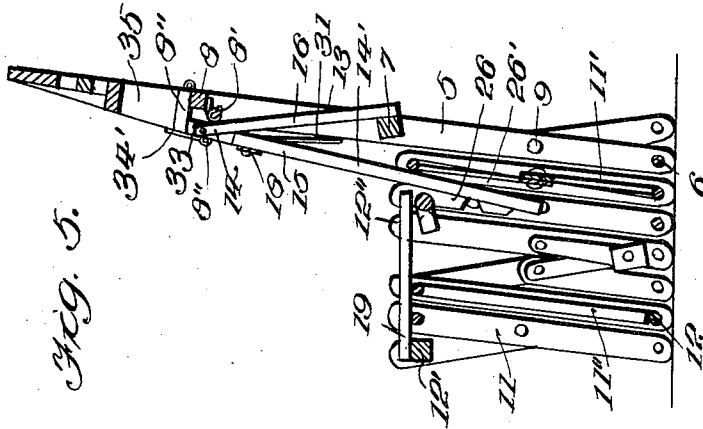
A. M. Aarv. Attorney.

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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THEODOR ENGSTRAND, OF DANSVILLE, NEW YORK.

COMBINATION BED, CHAIR, AND TABLE.

1,046,163.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed November 8, 1911. Serial No. 659,215.

To all whom it may concern:

Be it known that I, THEODOR ENGSTRAND, subject of the King of Sweden, residing at Dansville, in the county of Livingston and State of New York, have invented certain new and useful Improvements in Combination Beds, Chairs, and Tables, of which the following is a specification.

This invention relates to household furniture, and more particularly to a convertible bed, chair and table, and is an improvement over my patent issued July 25, 1911, Number 998,761.

The object of the invention is to provide a convertible article of furniture the construction of which is such that it may be extended to form a bed and readily converted into a chair or used as a combined chair and table.

A further object of the invention is to provide an article of furniture of simple and durable construction the arrangement of the parts of which is such that the device may be compactly folded for transportation or storage.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a perspective view of my article of furniture showing the same extended to form a bed; Fig. 2 is a similar view showing the article converted into a combined table and chair or bench; Fig. 3 is a longitudinal sectional view of Fig. 2; Fig. 4 is a perspective view showing the device folded to form a chair; Fig. 5 is a vertical sectional view of Fig. 4; Fig. 6 is a longitudinal sectional view of Fig. 1; Fig. 7 is a detailed perspective view of a portion of the device showing the manner of supporting the arms of the table on one of the cross bars of the lazy tongs; Fig. 8 is a side elevation of the structure transformed into a reclining chair.

Corresponding and like parts are referred to in the following description and indicated

in all the views of the accompanying drawings by the same reference characters.

The improved device forming the subject matter of the present invention comprises an inclined supporting frame 5 including spaced side bars connected by transverse bars 6 and 7 and a top bar 8 as shown. Piv-60
otally connected at 9 with the side bars of the main frame 5 are lazy tongs, the inter-65
secting levers 11 of which are of equal height and connected by transverse rounds 12. The intermediate bar 7 is pivotally mounted between the side bars of the sup-70
porting frame 5 and secured to the said transverse bar are a plurality of pivotally connected sections 13, 14 and 15, each sec-75
tion being formed of longitudinally disposed bars 16 spaced apart and interposed between and pivotally connected with the bars of an adjacent section.

The longitudinal bars of the outer section 15 are adapted to fit between the longitudi-80
nal bars of the intermediate section 14 so as to form a smooth upper surface constituting a table 17. The outer ends of the interme-85
diate bars of the section 15 are connected together by a transverse bar 18 adapted to bear against the upper surface of the bars of the intermediate section 14 when the sec-90
tion is folded within the outer section, as best illustrated in Fig. 2 of the drawings.

The outermost bars of the section 15 are freely pivoted to the intermediate bars thereof and the said outermost bars at the inner portions of their free ends are notched as at 15', the object of which will be ex-95
plained hereinafter.

The terminal transverse bar 12' is pivot-95
ally mounted between the adjacent levers of the lazy tongs and secured to said transverse bar is an auxiliary section 19 formed of relatively short stationary bars 20 and movable bars 21, the movable bars 21 being pivotally connected to the free ends of the stationary100
bars 20 and adapted when folded between the bars 20 to form a smooth upper surface constituting a bench or seat, and when folded between the bars of the outer section 15 to form a continuation of the bottom of the105
bed, as shown in Fig. 1 of the drawings.

The transverse bar 7 of the main support-110
ing frame 5 is preferably disposed in a plane slightly above the upper connecting bars 12 of the lazy tongs so that when the sections 13, 14 and 15 are moved to extended positions to form the bottom of the bed the

section 13 will be arranged at a slight angle or inclination with respect to the section 14 and thus form a head rest. The connecting bar 12'' of the lazy tongs is rigidly secured thereto and is provided at its opposite ends with terminal recesses 22 to accommodate the notched ends 15' of the outermost bar 15, when the structure is transformed into a table, as illustrated in Fig. 7 of the drawings. Secured to the inner faces of some of the levers 11 forming the lazy tongs are cleats 26 having at their lower portions notches 26'. These notches are to receive the lower ends of the outer bars 15 when the structure is converted into a table, and thus the top of the table is effectually supported by the said cleats.

The upper portions of two of the levers comprising the lazy tongs are cut away, as indicated at 27, there being links 28 pivotally connected together with the said shortened levers 11 at 27. The inner ends of these links swing in a downward direction when the structure is transformed into a table and a seat so that ample room is provided for one to pass through the opening thus formed to get in front of the table and rest upon the seat. When the structure is elongated into a bed, the said links 28 will approximately assume alinement with each other and thereby limit the elongation of the structure. Pivotally mounted on the rear end of the intermediate section 14 are locking rods 31 the free ends of which are provided with hooks 32 to engage suitable eyes 33 mounted on the side bars constituting the main frame 5 so as to assist in holding the table in a horizontal position.

In using the device as a bed the supporting frame 5 is held and the outer ends of the lazy tongs are moved longitudinally to the positions illustrated in Fig. 1 of the drawings, after which the sections 13, 14 and 15 are moved to extended positions with their lower faces resting on the upper transverse bars 12 and 12''. The movable bars 21 of the auxiliary section 20 are then swung laterally on their pivotal axes and fitted between the longitudinal bars of the outer section 15, thus forming a smooth surface for a mattress or the like. When the device is used as a combination table and seat, the longitudinal bars comprising the outer section 15 are folded between the adjacent section 14 and said section swung upwardly and laterally to the position shown in Fig. 2 of the drawings, after which the outermost bars 15 are swung downwardly within the seating recesses or notches 22 with their lower ends in the notches 26' of the cleats 26, the hook ends of the rods being subsequently passed through the eyes 33 to assist in holding the table in a horizontal position. After the table has been adjusted in this manner, the movable bars 21 of the aux-

iliary section 20 are folded within the stationary bars of said section to form a seat, and the lazy tongs moved longitudinally in the direction of the main frame 5 until the seat is adjusted to the desired position with relation to the table, thus permitting the device to be used as a combined table and seat or bench. A hook 12''' is pivotally mounted upon the transverse bar 12'' and is adapted to be engaged with the adjacent transverse bar 12 so as to hold the parts in the position described.

When the device is to be used as a chair, the sections 14 and 15 are folded one within the other and the said sections, together with the short section 13, moved laterally in the direction of the main supporting frame 5, after which the lazy tongs are collapsed until the auxiliary section 19 abuts against the lower ends of the sections 14 and 15, as best illustrated in Fig. 4 of the drawings. A hook 8' is pivotally mounted upon the intermediate portion of the cross bar 8 of the frame 5 and is adapted to be engaged with an eye 8'' mounted upon the pivoted end of one of the innermost bars 14 and thus the said bars 14 are held in position with relation to the frame 5 and serve as the back of the chair. Hinged for vertical swinging movement on the main frame 5 is a head rest designed to be used in connection with the device when the latter is converted into a chair. The said head rest comprises a substantially rectangular frame 34 having at its lower edge hooks 34' which are adapted to be engaged with the eyes 33, whereby the said head rest 34 may be held approximately in alinement with the frame 5 or may be supported at a desired angle of inclination with relation to the said frame to form a reclining rest for the head.

The bars 14 are connected together by a transverse bar 14' the ends of which project beyond the outermost bars 14. This transverse bar serves as a support for the bars 15 when they are folded within the bars 14 and also serves as a brace for the intermediate portion of the table when the device is converted into a table and the said bar 14' further serves as a means for bracing the back of the chair when the article is converted into the same.

The levers 11 next the side bars of the frame 5 and parallel therewith are connected together by cruciform braces 11'. These braces serve to strengthen the lower part of the article when it is converted into a chair and also support the head portion of the same when it is converted into a bed. When the article is converted into a combined table and seat the said braces support the table portion. The levers 11 next to the most remote set thereof from the side bars of the frame 5 and parallel with the said side bars of the said frame are provided with braces

11". These braces assist to support the free edge portion of the seat when the structure is converted into a combined table and seat and the said braces support the foot portion of the structure when it is converted into a bed and serve to brace the structure at the points where the bars 15 and 21 overlap each other when the structure is in the form of a bed.

10 Having thus described the invention, what is claimed as new is:

A device of the class described including an end frame, eyes mounted thereon, a head rest hingedly connected with the frame, 15 hooks carried by the head rest and engageable with the eyes to support the head at a desired angle, lazy tong levers connected with the frame, transverse bars connecting said levers at the opposite sides of the frame 20 together, a hook mounted upon one of the transverse bars and engageable with an ad-

jacent transverse bar to hold the lazy tong levers spaced at a predetermined distance apart, two of the lazy tong levers at the intermediate portion of the structure being 25 shorter than the other lazy tong levers, links pivotally connected together and pivotally connected at their ends with the shorter lazy tong levers and adapted to swing in a downward direction at their inner ends to provide 30 space at the side of the structure for ingress and egress, sections pivotally connected together and pivotally connected with the end frame, and hooks carried by the sections and engageable with said eyes. 35

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

THEODOR ENGSTRAND. [L. s.]

Witnesses:

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ROYAL I. G. FRENCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."