W. STEIFF.

BED DAVENPORT OR COUCH.

APPLICATION FILED APR. 26, 1915.

1,330,990.

Patented Feb. 17, 1920.

2 SHEETS—SHEET 1.

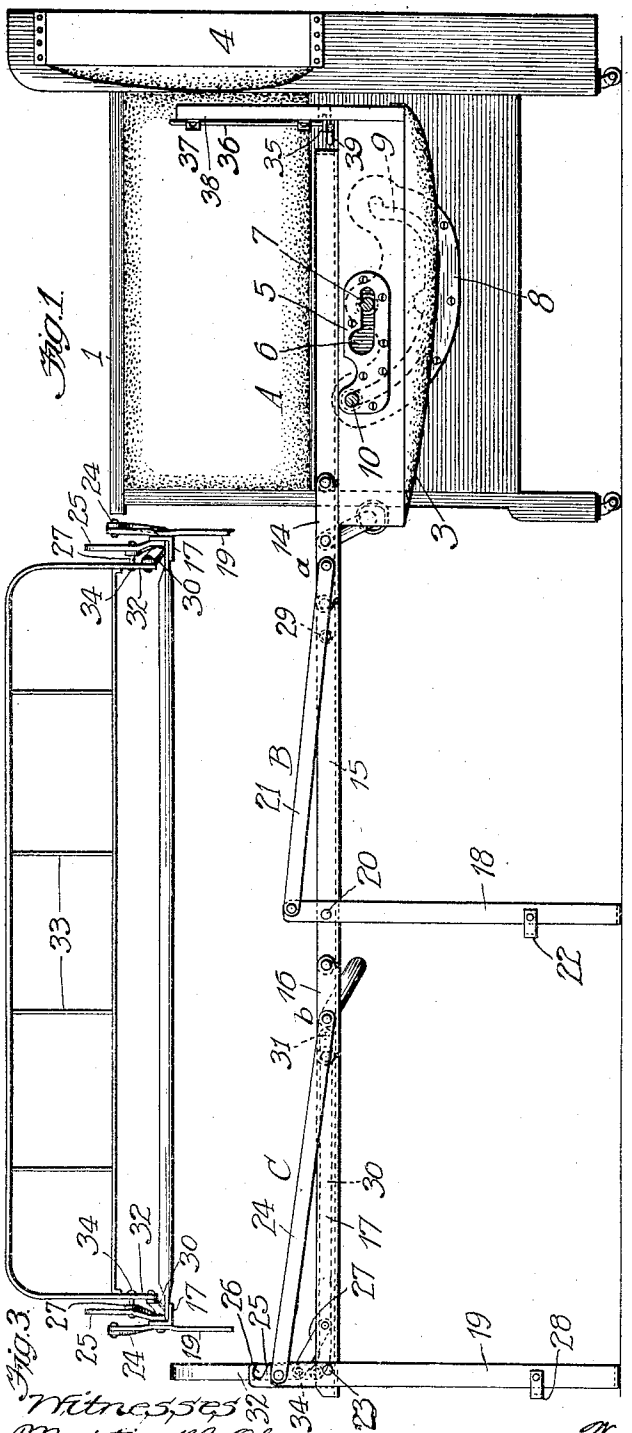


Fig. 1.

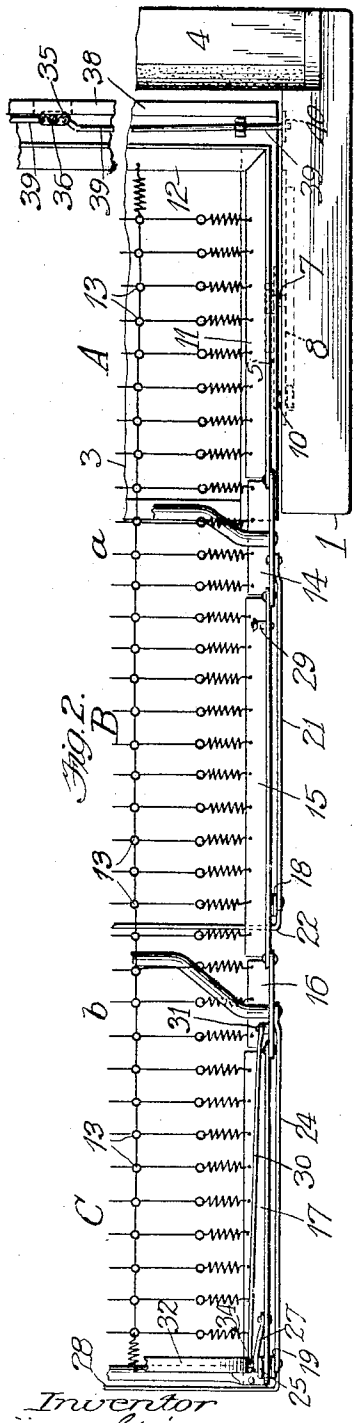


Fig. 2.

Fig. 3.

Witnesses
Martin H. Olsen.
Robert Dobberman

Inventor
William Steiff
By Rector Hibben Davis & Macauley
His Attys.

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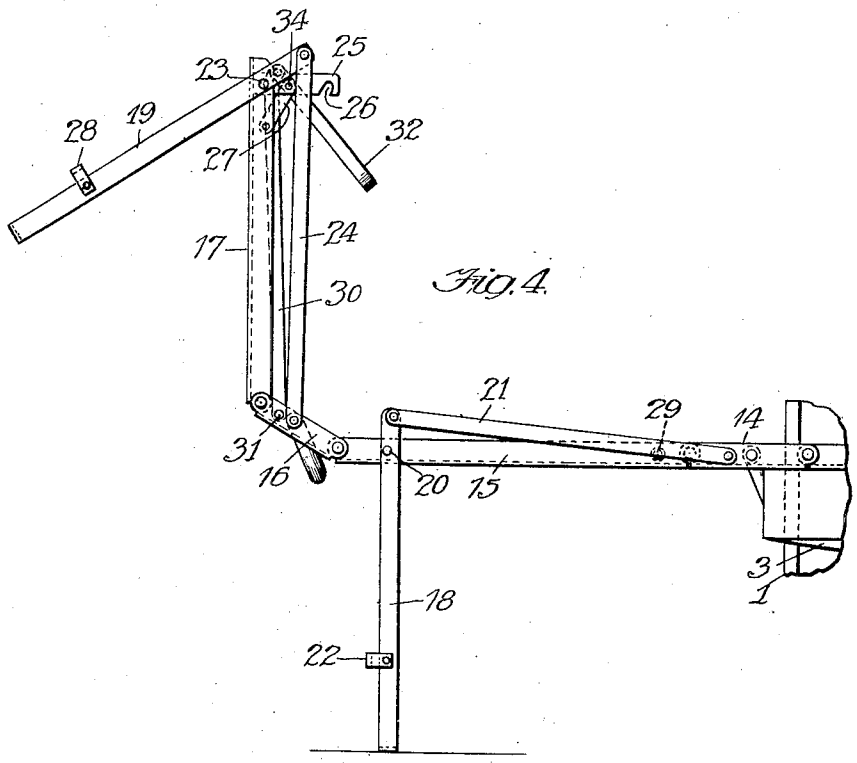
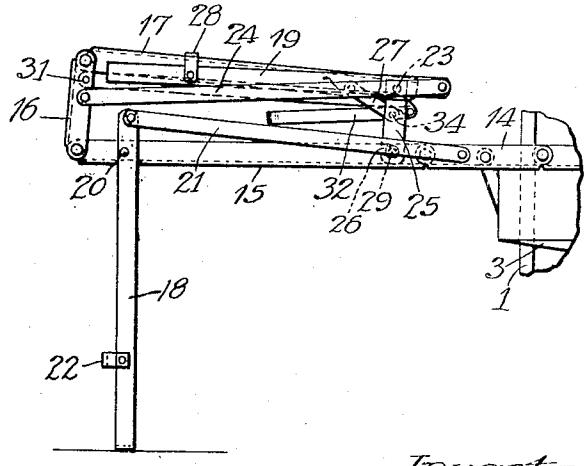


Fig. 4.

Fig. 5.



Witnesses
Martin H. Olsen.
Robert Dobberman

Inventor
William Steiff
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His Attys.

UNITED STATES PATENT OFFICE.

WILLIAM STEIFF, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO SAMUEL GOLDSTEIN, ONE-FOURTH TO ISADORE GOLDSTEIN, ONE-FOURTH TO ABE GOLDSTEIN, AND ONE-FOURTH TO MEYER GOLDSTEIN, ALL OF CHICAGO, ILLINOIS.

BED DAVENPORT OR COUCH.

1,330,990. Specification of Letters Patent. **Patented Feb. 17, 1920.**

Application filed April 26, 1915. Serial No. 23,910.

To all whom it may concern:

Be it known that I, WILLIAM STEIFF, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bed Davenports or Couches, of which the following is a specification.

My invention relates to bed davenports or couches and the object thereof is to provide furniture of this character with simple, efficient and easily operated mechanism for converting the same into a bed. This invention pertains more particularly to the mechanism associated with the folding sections of the spring and also, in the more complete embodiment of my invention, with a head rest associated with the outermost section of the spring. The various features of novelty and utility in my construction will be apparent from the description hereinafter given.

In the drawings, Figure 1 is an elevation of a davenport embodying my invention but showing one of the end pieces removed and with the bed spring in open or extended position; Fig. 2 a plan view of one side of a bed davenport in such extended position; Fig. 3 an elevation of the outermost parts of the extensible sections of the bed showing the head rest in vertical position; Figs. 4 and 5 detail views of the bed sections showing different positions thereof in the operation of folding such sections.

It will be understood that my invention is applicable to different kinds of furniture such as davenports, bed couches, and the like, but in the present instance I have shown the same embodied in a davenport for the purpose of giving a clear and definite description of my invention and without any intention of limiting myself thereto.

Referring to the particular embodiment of my invention as herein shown, the davenport comprises a frame including the two end pieces 1, the seat 3 and the back 4. This seat which carries the bedspring sections hereinafter described is mounted between the end pieces and is adapted to be inverted in converting the davenport into a bed in the same general manner as shown in Goldstein Patent No. 1,078,044, issued November 11, 1913. It will therefore suffice to say that each end of the seat is provided with a plate 5 having a slot 6 which coöperates with a fixed headed stud 7 projecting inwardly from its adjacent end piece 1, the construction and arrangement being such that the seat is capable both of a rotary and sliding movement bodily. Each end piece 1 is provided on its inner side with a plate 8 having a curved slot 9 in which travels a pin 10 projecting from the end of the seat. This construction and arrangement of plates, pins, and slots gives the required inverting or turning movements of the seat.

The bedspring comprises, in the present instance, a series of five sections, three of them being major sections indicated in general as to position by the reference letters A, B and C, in Fig. 2, and two minor sections indicated as to position by the reference letters *a* and *b*. The innermost section A is formed by opposite parallel strips or bars which are here shown as channel bars or sections 11, only one side being shown in Fig. 2, it being understood that the other side is exactly the same. These bars are connected at their inner ends by a similar channel bar 12 and the entire frame thus formed is secured in any suitable manner to the under side of the seat 3. It will be understood of course that the spring fabric, as shown at 13, is secured to the section formed by these bars. All of the other sections are formed of similar parallel side sections and spring fabric 13. For instance the minor section *a* has side channel bars 14, the section B has channel bars 15, the minor section *b* has channel bars 16, and the outermost section C has channel bars 17.

The bed sections are provided with suitable pairs of legs 18 and 19, the former of which is pivoted near its upper end at 20 to the side bars 15 and connected by means of links 21 with the side bars 14 of the minor section *a*, it being understood that the links 21 are pivotally connected to said side bars 14 and the upper end of the legs 18. As a result the legs 18 are adapted to fold and to open automatically in the closing and opening movements of the bed sections. The legs 18 are connected toward their lower ends with a cross piece 22.

Each member of the pair of legs 19 is pivoted at 23 to the outer end of the outermost side bars 17 and its upper end is pivotally connected by means of a link 24 with the side bar 16 of the minor section *b*, it

being understood that both sides of the spring bed are the same, in the respects now being described.

Still referring to one side of the spring bed, an arm 25 is secured rigidly at its lower end to its adjacent side bar 17 and is formed at its outer end as a reëntrant hook 26. When the bed sections are extended as shown in Fig. 1 this hook arm stands vertical with its hook uppermost and when said bed sections are folded as in Fig. 5 the same is substantially vertical but with its hook portion lowermost. This arm 25 and the side bar 17 may be provided, if necessary, with a brace 27 but the same is not essential. The members of the pair of legs 19 are connected near their lower ends with a cross strip 28.

The bed sections, being constructed as above described, operate as follows, starting with the extended position shown in Fig. 1 and following through the positions shown in Figs. 4 and 5. The operator takes hold of the cross piece 28 and raises or swings the same upwardly in the manner and with the result shown in Fig. 4. This swinging movement is continued whereupon the parts assume the position shown in Fig. 5 at which time the hooks 26 hook over the pins 29 extending inwardly from the cross bars of the major section B. It is obvious that in the operation of folding the parts from the position shown in Fig. 4 to that shown in Fig. 5, the action of the legs 19 in moving toward approximate parallelism with the side bars 17 and links 24 will force the side bars 17 and their arms 25 rearwardly with respect to the side bars 15 which carry the pins 29. The legs 19 are not lowered into the final position shown in Fig. 5 until after the ends of the hooks have cleared the pins 29, when the arm is forced down, drawing the hooks rearwardly into engagement with the pins as described, in which position they are securely retained by the reëntrant form of the hooks. In practice the movement required to prevent disengagement is slight, and the manipulation of the parts is such naturally that the locking is practically automatic. Continuing the folding operation, the operator now takes hold of the other cross piece 22 and by raising the same folds the three outer sections over upon the innermost section.

My invention also relates to a head rest which is associated with and operated by some of the connections already described and by means of an additional connection comprising at each side of the bed sections a link 30 which is pivotally connected at 31 to its adjacent side bar 16 and at its upper end to the extended side pieces or bars 32 of a head rest 33, as shown in detail in Fig. 3. This head rest is pivoted at said extended ends, by means of the pivot pins 34, to the hook arm 25. As a result of the construction and connections above described, the head rest is adapted to be automatically unfolded in the opening operation of the bed sections and to be automatically folded in the folding operation of said bed sections, the head rest taking its place between the major sections B and C when folded, as shown in Fig. 5.

My invention also includes a lock for locking the seat in inverted position, the same comprising a center plate 35 secured to the lower end of a vertical operating rod 36 mounted to turn in brackets 37 on the inside of the depending board or skirting 38 projecting from the seat. This plate 35 which is adapted to oscillate in a slot formed in the skirting, as shown in Fig. 2, is pivotally connected to two similar horizontal locking rods 39 arranged to move in unison, either inwardly or outwardly according to the direction of movement of the plate 35. When the rods are moved to an outward position, as shown in Fig. 2, the same will engage in holes 40 in the end pieces 1 with the result that the seat is locked in inverted position such as shown in Fig. 1.

I claim:—

1. In furniture of the class described, the combination of a frame, a seat mounted to rotate therein, and a bed spring made in folding sections, the innermost one of which is connected with the seat, legs pivotally connected with the outermost section, arms secured to such latter section and arranged to engage and lock with an intermediate section, a head rest pivoted upon said arms, and operating connections between such rest and one of said sections.

2. In furniture of the class described, the combination of a frame, a seat mounted to rotate therein, and a bed spring made in folding sections, the innermost one of which is connected with the seat, legs pivotally connected with the outermost section, arms secured to such latter section and arranged to engage and lock with an intermediate section, a head rest pivoted upon said arms and links connecting between such rest and section adjacent the outermost one and pivoted thereto.

WILLIAM STEIFF.

Witnesses:
MEYER GOLDSTEIN,
ROBERT DOBBERMAN.