Sept. 12, 1933. W. WESTPHAL 1,926,357

SEAT CONSTRUCTION FOR FURNITURE

Filed June 19, 1929

Fig. 1

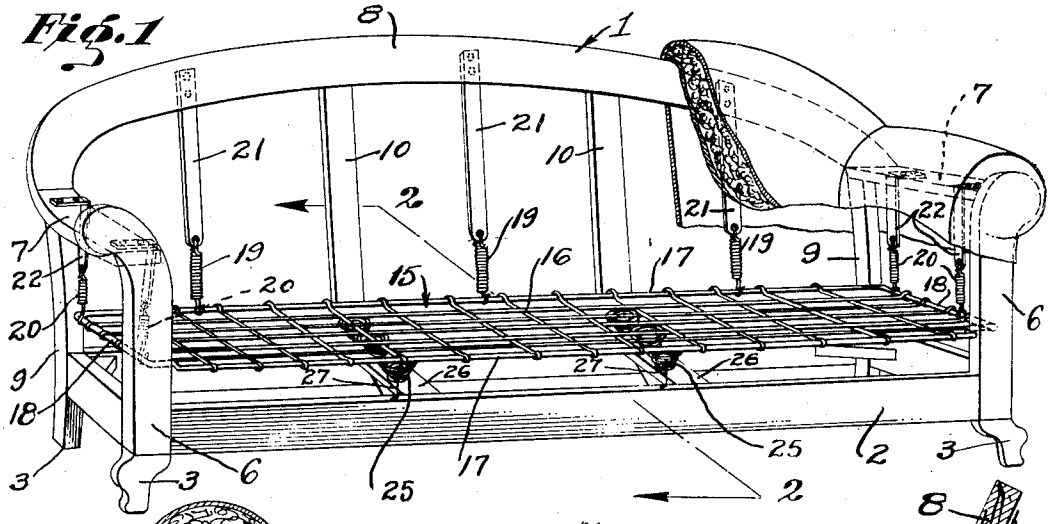


Fig. 3

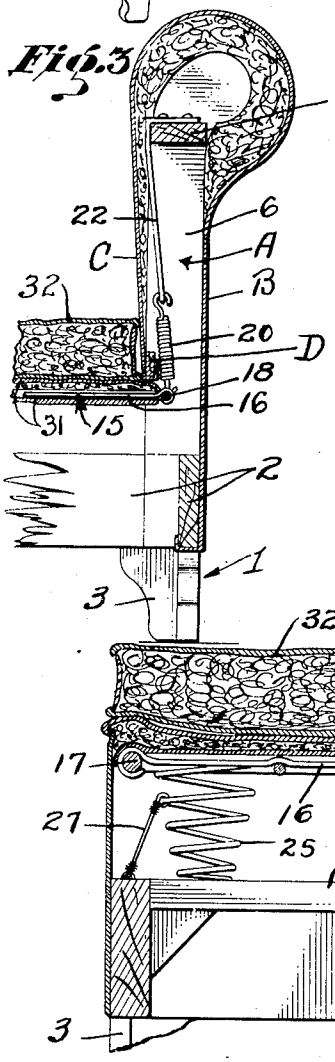


Fig. 2

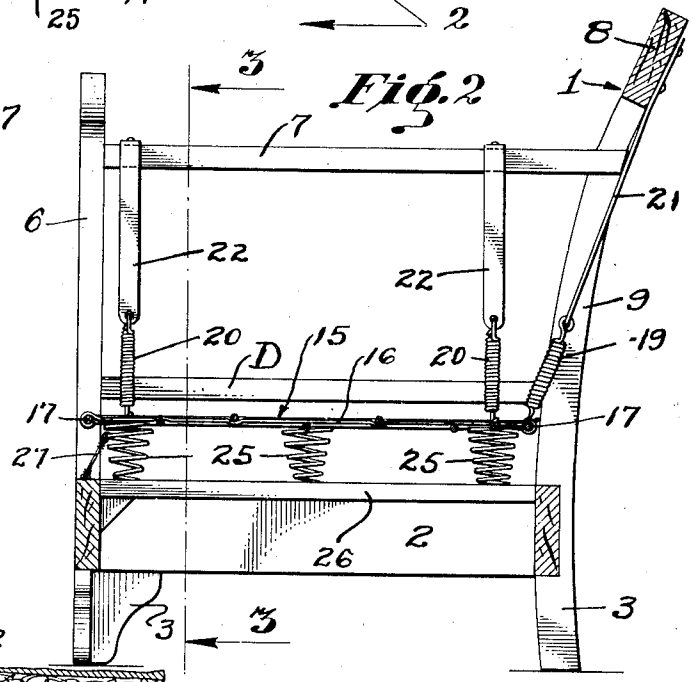
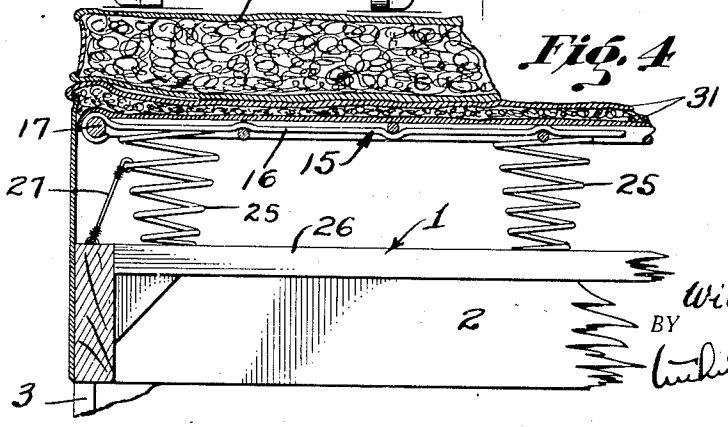


Fig. 4



INVENTOR.
William Westphal
BY
his ATTORNEY

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1,926,357

SEAT CONSTRUCTION FOR FURNITURE

William Westphal, Los Angeles, Calif.

Application June 19, 1929. Serial No. 372,049

5 Claims. (Cl. 155—50)

This invention relates to seats and particularly to seat-supporting means for both chairs and davenports and the like, and the present application contains improvements on the invention described in my copending application Ser. No. 223,679, filed October 3, 1927, which matured into Patent No. 1,845,535, issued Feb. 16, 1932.

An object of the present invention is to so simplify the seat construction and supporting means as to render it readily applicable to furniture frame constructions now in common use in the market without requiring any alterations in such constructions to adapt this invention thereto.

Another object of the invention is to provide a simplified seat supporting structure wherein a minimum number of parts are employed to secure the desired results.

A further object is to provide a seat construction and seat supporting means that can be easily, quickly and conveniently applied to furniture frames by unskilled or low-priced workmen, thereby effecting a saving in the cost of manufacture.

A still further object is to provide a novel and sturdy seat construction and supporting means therefor whereby a highly resilient spring edge seat construction may be provided by simple and inexpensive means.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detail description and the appended claims.

The accompanying drawing illustrates the invention in a form I at present deem preferable.

Figure 1 is a perspective view of a davenport frame having a seat construction and supporting means embodying my invention. Part of the frame is covered with upholstery.

Fig. 2 is a transverse cross-section on line 2—2 of Fig. 1, showing only the furniture frame construction and my invention associated therewith.

Fig. 3 is a fragmental cross-section on line 3—3 of Fig. 2 showing the relative position of my invention in the furniture arm construction, which is covered with upholstery and is provided with a loose cushion.

Fig. 4 is a fragmental sectional view on enlarged scale of a fragment of a seat structure applicable either to a chair or a davenport, illustrative of the invention and showing a fragment of a loose cushion construction thereon.

Referring in detail to the drawing, the davenport frame to which my invention is particularly adapted and to which it is shown applied, comprises a frame 1 which includes a base or box frame 2, legs 3 upright front arm members 6, transversely extending arm top pieces 7 and a longitudinally extending top frame piece 8.

The upright rear arm members 9 support the end portions of the longitudinal frame piece 8, and the intermediate portion thereof is supported by one or more (in the present instance two) rear uprights or rails 10 which extend from the rear portion of the frame base 1 to the top piece 8.

A seat member or seat proper 15 is suspended on springs mounted above and is also spring-supported by springs mounted underneath the seat in a manner presently to be described. Said seat member 15 preferably comprises a frame having a woven wire body portion 16 provided at each side with a relatively large wire 17 which is continued around the ends of said frame where it forms the end wire 18.

The seat 15 is what is properly called a floating seat and the wire body portion 16 provides a body supporting surface that is resiliently supported by a plurality of expansion springs 19 and 20. The springs 19 being spaced along the rear of the seat 15 and connected at one end to the wire 17 and at their other end to the top frame piece 8 through the medium of straps or links 21 that are secured to the top frame piece 8 and hang free at the end connected to the spring 19.

In both forms of the invention shown, the top frame piece 8 extends from right to left with respect to the seat, and the straps 21 which connect the tension springs 19 with said top frame piece 8 are adapted to aid in forming a yielding comfortable back rest for the person occupying the seat. So far as I am aware, it is broadly new to provide a yieldably extensible member suspended at its upper end from the back of the chair or seat which performs the combined functions of aiding in supporting the seat proper and also helping to form a yielding comfortable back rest for the occupant of the seat.

The springs 20 are spaced along and support the ends of the seat 15 and are preferably connected at one end to the end wire 18 and to the arm top pieces 7 through the medium of end straps or links 22 that are preferably angled at their outer ends and secured to the arm top pieces 7. The members 22 are bent as shown in Fig. 3 so that their free ends will be within the space A formed in the arms between the outer sheet B of covering material and the inner sheet C thereof.

The seat is supported intermediate its ends by

a plurality of helical coil springs 25 that are secured to base cross rails 26 that are found in most all davenport frames now on the market.

Flexible stay wires 27 are connected to the base cross rails 26 and to the front helical coil springs 25 so as to prevent undue rebounding of the said springs after depression.

The seat 15 extends below and beyond the bars D and into the arm spaces A and is provided with the usual covering 31. The customary loose cushions 32 are supported on the seat 15 and when in use the weight of persons seated on the seat 15 will not depress the same to such an extent that the top of the cushion 32 will be below the lower edge of bars D and thereby expose the springs 19 or 20.

I claim:

1. In an article of furniture including a frame having a top frame piece and a bottom cross rail; arms mounted on said frame including a top member; bars extending across said arms; a seat member extending below said bars and into the space formed in said arms; strap members secured to said arm top members and to the top frame piece; extension springs occupying said space and connecting said straps and said seat member; and compression springs mounted on said bottom cross rail adapted to support said seat member intermediate its ends.

2. In an article of furniture including a frame having a top piece and a base cross rail, arms mounted on said frame including a top member and having arm spaces; bars extending across said arm spaces and adapted to have a covering secured thereto; a seat member extending into said arm spaces below said bars; extension springs mounted in said arm spaces and connected to said seat member and to the top member of said arms; and compression springs secured to said base cross rail adapted to support said seat member.

3. In an article of furniture, including a frame having a base frame, arms extending from opposite ends of said base frame, including top pieces, a top frame piece connecting said arms, a seat member mounted above said base frame; and means for yieldingly supporting said seat member including extensible members connected to said top pieces and top frame piece and to the marginal edge of said seat member.

4. In an article of manufacture, including a frame having a top frame piece; arms extending from opposite ends of said top frame piece and including arm top pieces and having arm spaces therein; bars extending across said arm spaces and adapted to have a covering secured thereto; a seat member extending into said arm spaces below said bars; strap members secured to said top frame piece and to said arm top pieces, said strap members secured to said arm top piece extending downwardly into the space formed in said arms; resilient means connected to said strap members and to said seat member, the resilient means connected to said seat member and to the strap members secured to said arm top pieces being within the space formed in said arms.

5. In an article of furniture, including a frame having a top frame piece; arms mounted on said frame including a top member and having arm spaces; bars extending across said arm spaces and adapted to have a covering secured thereto; a seat member extending into said arm spaces below said bars; strap members secured to said top frame piece and to said arm top members; resilient means connected to said strap members and to said seat member; the resilient means connected to the strap members secured to said arm top members being within said arm spaces.

WILLIAM WESTPHAL.