

T. G. WEYER.

SOFA BED.

APPLICATION FILED FEB. 3, 1908.

925,545.

Patented June 22, 1909.

2 SHEETS—SHEET 1.

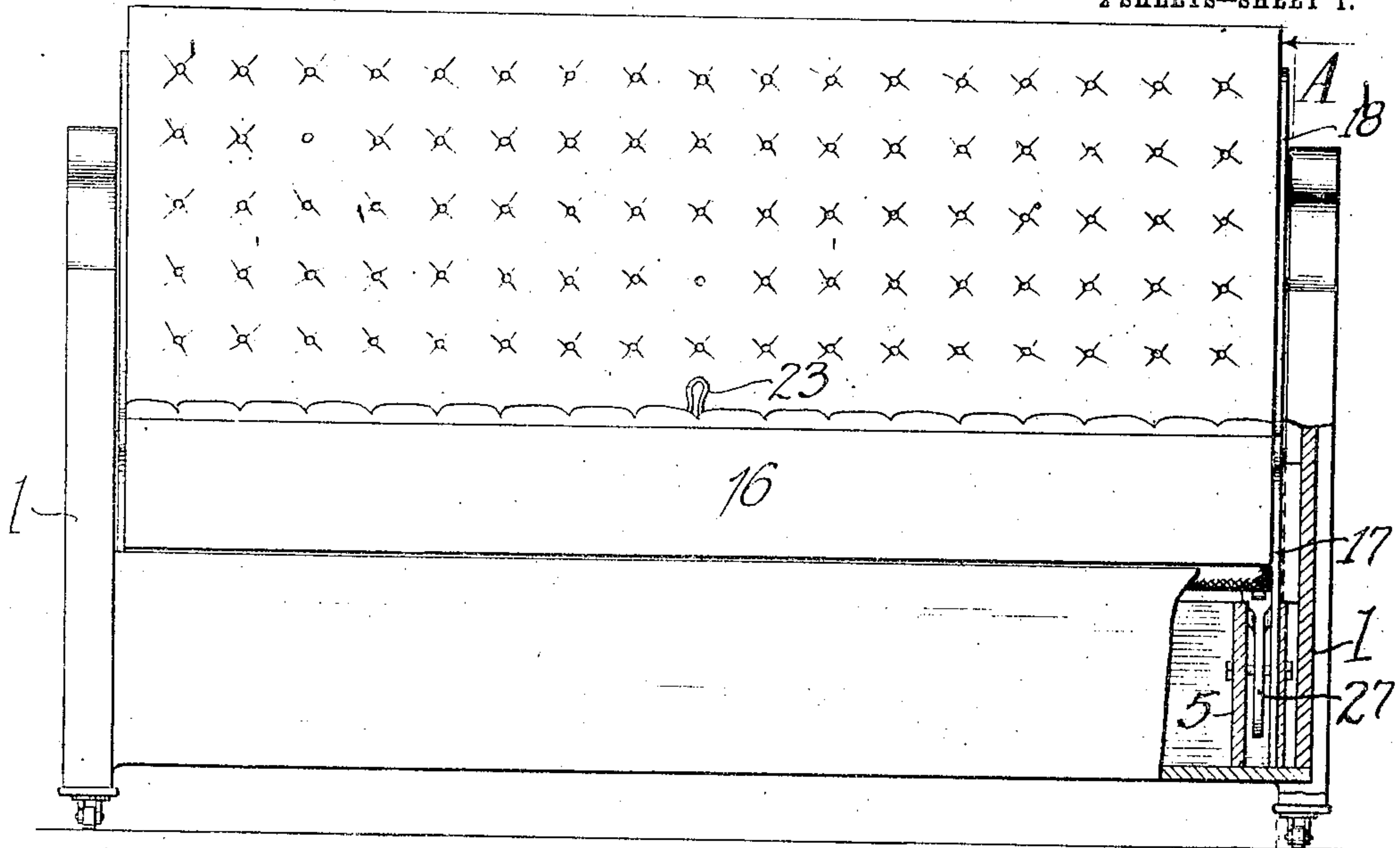
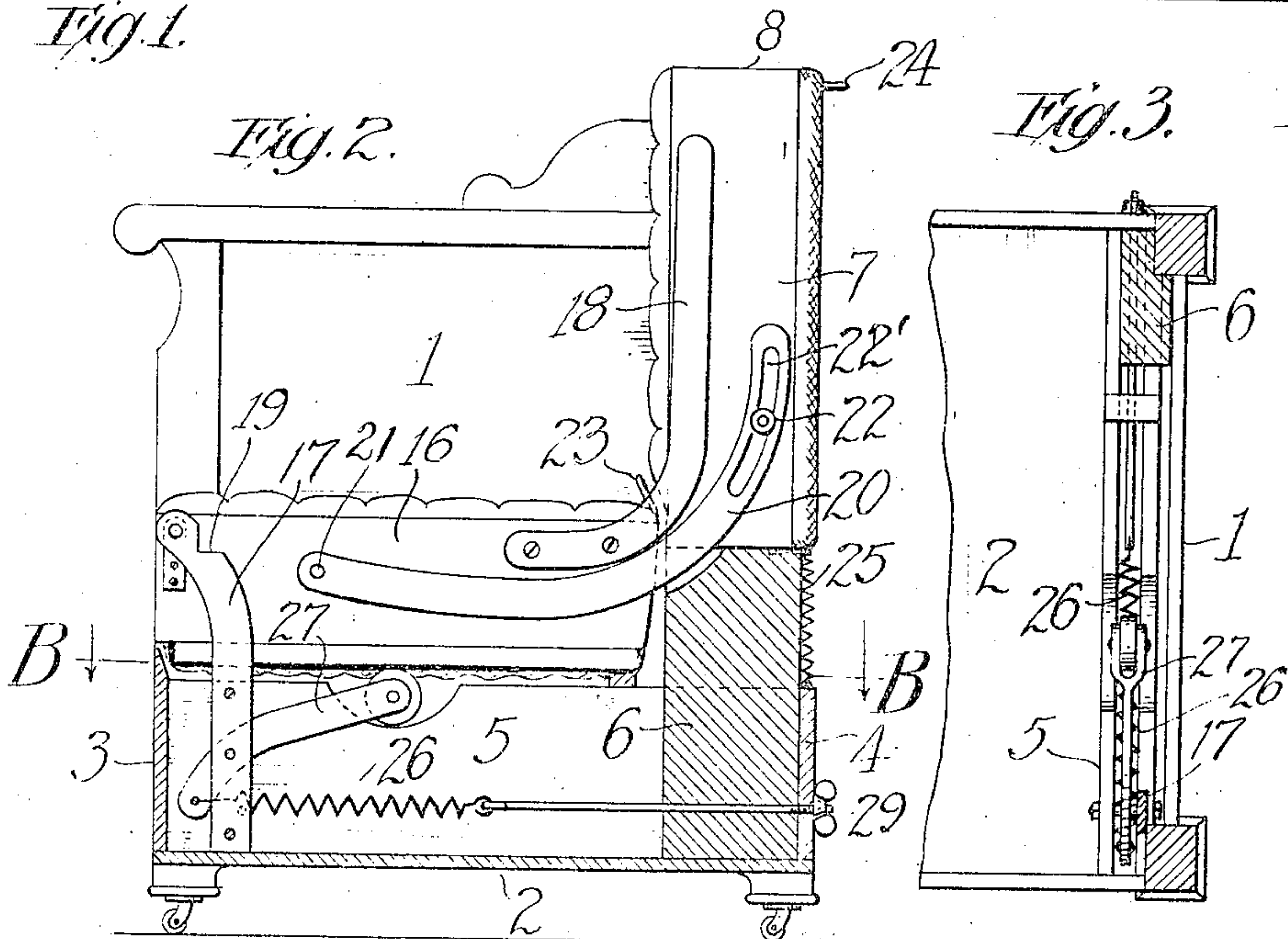


Fig. 1.



Witnesses  
R. O. White  
Harry R. L. White

Inventor  
Theodore G. Weyer  
By *Hammer & Hammer*  
Attys.

925,545.

Patented June 22, 1909.

2 SHEETS—SHEET 2.

Fig. 4.

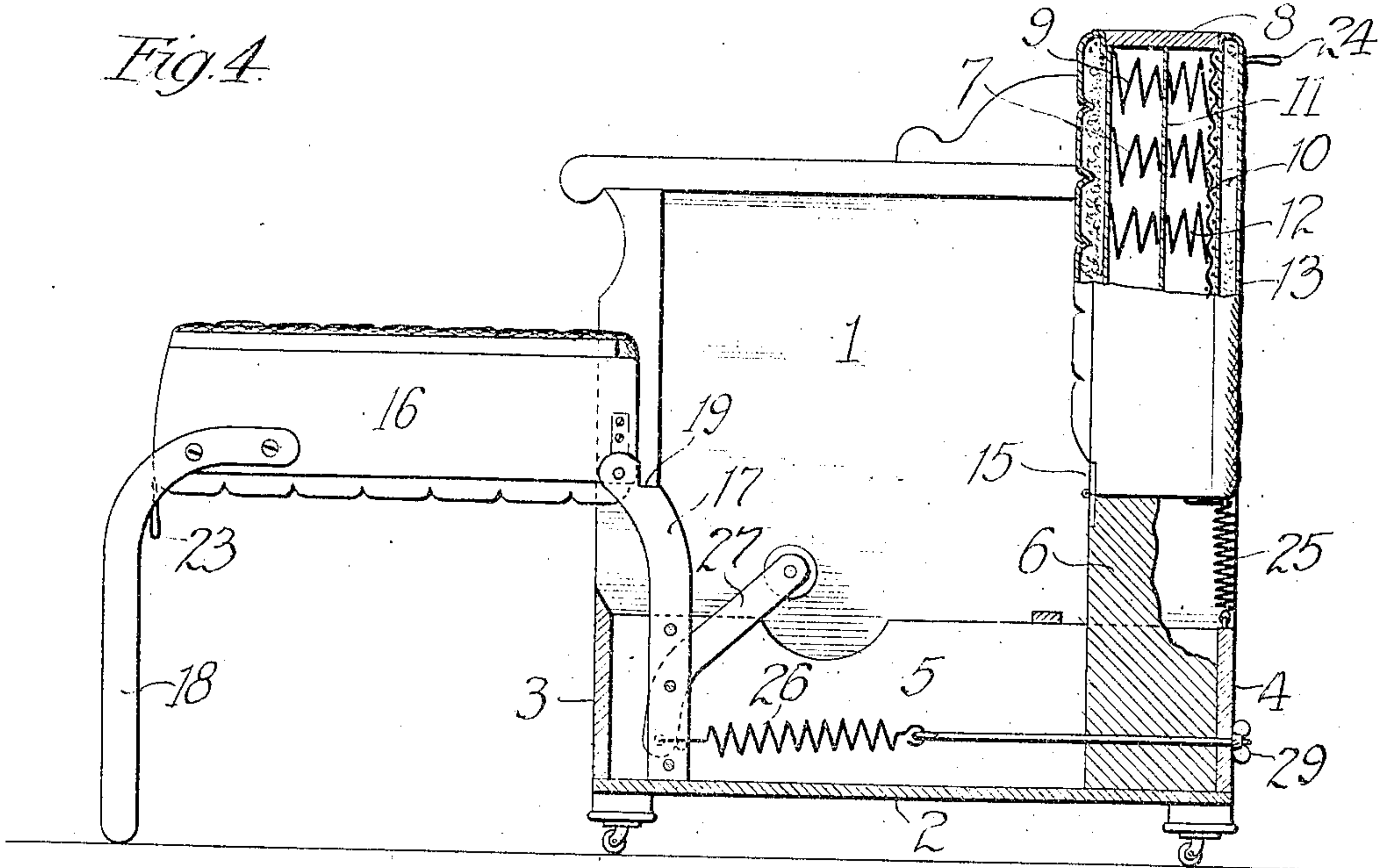


Fig. 6. 14 13 Fig. 7.

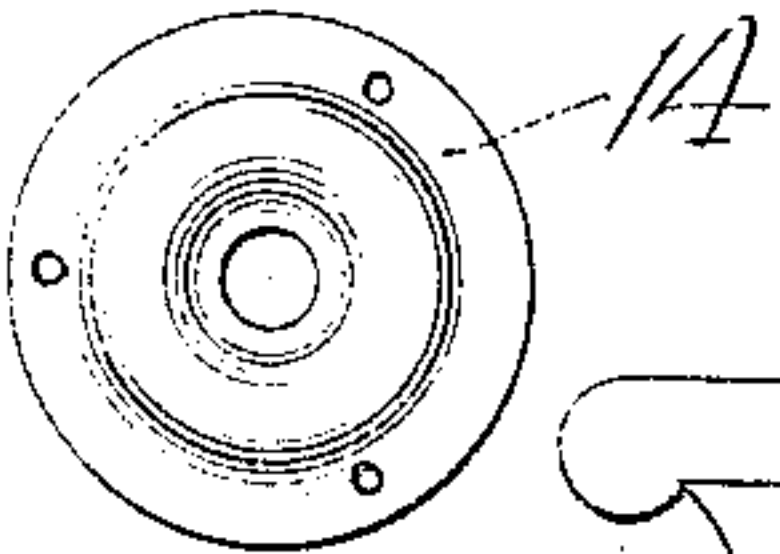
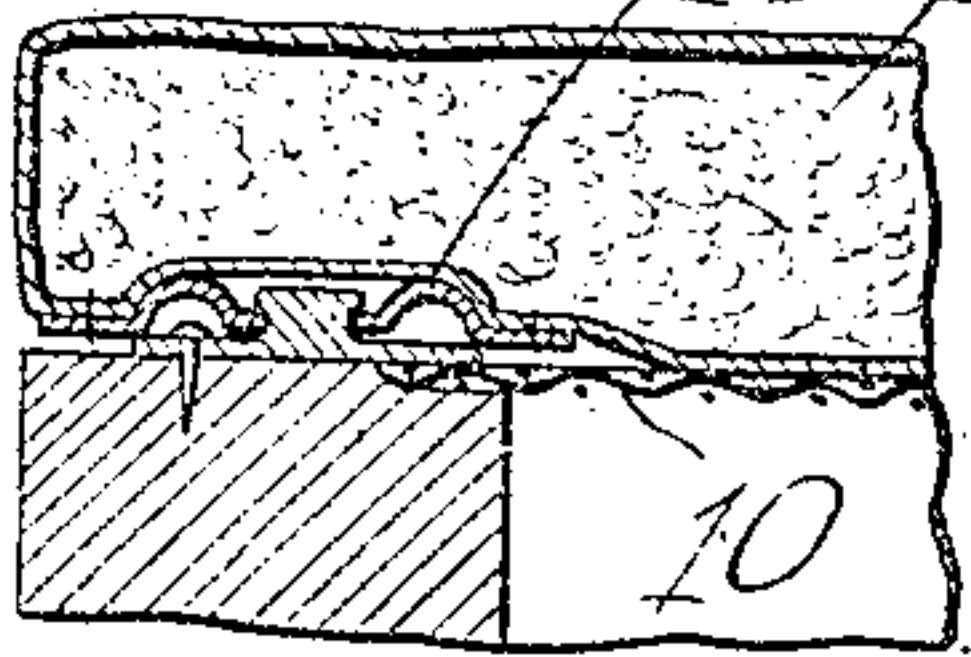
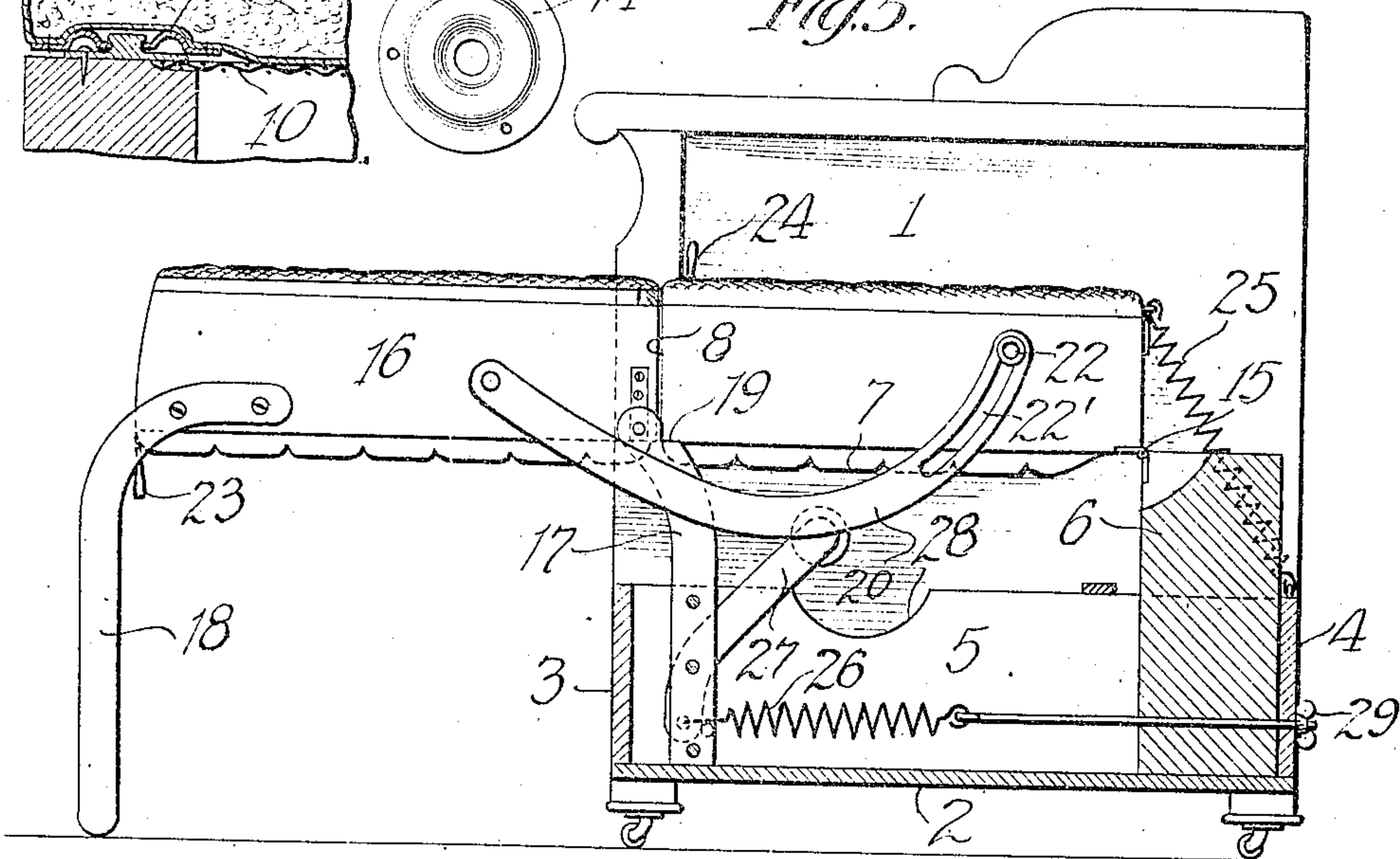


Fig. 5.



Witnesses  
R. A. White.  
Harry R. White.

Inventor  
Theodore G. Weyer,  
By *Rummler & Rummler*  
Attys



# UNITED STATES PATENT OFFICE.

THEODORE G. WEYER, OF CHICAGO, ILLINOIS, ASSIGNOR TO RUDOLPH DEIMEL, OF CHICAGO, ILLINOIS.

## SOFA-BED.

No. 925,545.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed February 3, 1908. Serial No. 414,051.

*To all whom it may concern:*

Be it known that I, THEODORE G. WEYER, a citizen of the United States of America, and a resident of Chicago, Cook county, State of Illinois, have invented certain new and useful Improvements in Sofa-Beds, of which the following is a specification.

The main objects of this invention are to provide an improved construction for sofa beds; to provide an improved method of mounting the seat section of sofa beds so that the same can be readily and easily shifted between a normal position and a forwardly extended position; to provide an improved arrangement of the supports of the seat section whereby the rigidity of the seat section when in its extended position is assured without attention from the operator, and whereby the supports will be hidden at the sides of the back section when the seat section is in its normal position; and to provide an improved system of mounting the seat and back sections of a sofa bed, together with improved mechanism connecting said seat and back sections whereby when one is shifted by the operator the other will automatically assume a corresponding position without further attention by the operator. These objects are accomplished by the device shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a sofa bed constructed according to this invention, the supporting frame being partly in section, to disclose the mechanism for counterbalancing the weight of the seat section to insure easy movement thereof. Fig. 2 is a side elevation of the same, the supporting frame being shown in section on the line A—A of Fig. 1. Fig. 3 is a horizontal section partly broken away, the plane of section being indicated by the line B—B of Fig. 2. Fig. 4 is a side elevation, partly in section, of a modification in which the seat and back sections are independent. Fig. 5 is a view corresponding to Fig. 2, but showing the parts of the device in their position for use as a bed. Fig. 6 is a sectional detail, showing the method of attaching the mattresses to the seat and back sections. Fig. 7 is a detail of the fastener.

In the construction shown in the drawings, the supporting frame comprises two upright end pieces 1 connected together by a bottom 2 and front and back rails designated 3 and 4 respectively. Partitions 5 extend across between the rails 3 and 4 near each end piece 1 so

as to form compartments within which the operating mechanism is housed. The space inclosed by the bottom, partitions and rails forms a compartment in which bed clothes or other articles may be stored. A pair of blocks 6 bolted between the partitions 5 and the respective side pieces 1 serve as supports for the back section of the sofa, as will hereinafter appear.

The back section 7 of the sofa bed consists of a rectangular frame 8 having upholstery 9 on its front face and having a woven wire bed spring 10 on its rear face. Intermediate between the spring 10 and the upholstery 9 is a partition 11, preferably formed of webbing, against which bear the springs 12 which support the upholstery and the bed spring 10. A mattress 13 is mounted upon the bed spring and is held in position by fastening clips, preferably of the type shown at 14 in Figs. 6 and 7. The back section 7 is hinged or otherwise suitably fulcrumed at its lower edge. In the form shown, the hinges 15 are connected to the stationary blocks 6, and the back section 7 is arranged to be swung between its normal upright position and the horizontal position in which it is represented in Fig. 5.

The seat section 16 is constructed in a manner similar to that of the back section 7 and is hinged or otherwise suitably fulcrumed to swing between a normal or retracted position, as in Fig. 2, and a forwardly extended position, as in Figs. 4 and 5. The seat section 16 is preferably hinged to stationary uprights 17 bolted to the end pieces 1. The seat section 16 is provided with supports or legs 18 rigidly fastened to its ends and adapted to support the same in a substantially horizontal position when extended. The supports 18 are of such shape that they will lie within the space between the end parts 1 and the ends of the back section 7 when the seat section 16 is in its normal position, as in Fig. 2.

The uprights 17 are notched near their upper ends to provide supporting shoulders 19 upon which the back section 7 rests when in its horizontal position. The seat and back sections may be independent of each other, as in Fig. 4.

When the device is constructed in its preferred form, the seat section 16 and the back section 7 are connected by suitable mechanism to cause them to swing together when



either of them is shifted between its position for use as a sofa and that for use as a bed. In the form shown, this mechanism comprises a curved link 20 pivotally connected at 21 to the seat section 16 and having sliding pin and slot connection with the back section 7, the latter connection comprising a pin 22 and a slot 22'. The seat section 16 is provided with a strap 23, by means of which the operator may lift it from its normal position, as in Fig. 1, when shifting it to its extended position, as in Fig. 5. The back section 7 is provided with similar straps 24, preferably at each end, by means of which it may be lifted from its lowered position to an upright position. When the seat section 16 is swung forward, the pin 22 slides in the slot 22' until the seat section has been swung clear of the path of the back section. When the pin 22 has reached the end of the slot 22', the link 20 pulls the back section 7 forward, causing it to descend to its horizontal position, as in Fig. 5.

The weight of the back section 7 is counterbalanced by a spring 25; and the weight of the seat section 16, when in its normal or retracted position, is counterbalanced by means of springs 26, one at each end, acting through levers 27 provided with rollers 28 which ride upon the end rails of the frame of the seat section 16. The tension of the springs 26 may be adjusted by wing nuts 29.

The operation of the device shown is as follows:—When the sofa sections are in their normal positions,—that is, the position for using as a sofa, the parts of the operating mechanism will be in the position illustrated in Figs. 1 and 2. If the operator wishes to extend the parts to the position for use as a bed, as in Fig. 5, he lifts the seat section 16 by means of the strap 23, causing it to swing forward until it rests upon the supporting legs 18. The weight of the section 16 is so counterbalanced by the springs 26 that this operation requires but slight exertion on the part of the operator. As the part 16 swings upward on its fulcrum, the links 20 slide in their connection with the back section 7 until the section 16 has passed clear of the path of the section 7, when said links pull the section 7 forward. The forward movement of the section 7 is partly counteracted by the spring 25 so that said section falls to its lowered position with an easy movement.

To return the parts to their position for use as a sofa, the operator takes hold of either of the straps 24 and swings the section 7 to its upright position. In this operation he is assisted by the spring 25. In

this instance, the links 20 again cause the two sections to swing together. After the seat section 16 has passed a vertical position, it falls to its normal, retracted horizontal position, the fall being broken by the lever 27 and the springs 26.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a sofa bed, the combination of a supporting frame, a back section adapted to stand in a vertically disposed position thereon, a seat section fulcrumed at its front edge and adapted to be swung on its fulcrum so as to assume a horizontally extended position, supporting means having fixed relation to said seat section and adapted to support it when in its extended position, said supporting means being disposed so as to lie in a vertically disposed position at the sides of said back section and rearward of the front face thereof when said seat section is in its normally retracted position.

2. In a sofa bed, the combination of a supporting frame, a back section adapted to stand in a vertically disposed position thereon, a seat section fulcrumed at its front edge and adapted to be swung on its fulcrum so as to assume a horizontally extended position, supporting means for said seat section when in its extended position, said supporting means being disposed so as to lie in a vertically disposed position at the sides of said back section and rearward of the front face thereof when said seat section is in its normally retracted position, said frame having parts extending upwardly along each end of said back section and spaced therefrom to provide recesses into which said supports may pass.

3. In a sofa bed, the combination of a supporting frame, a seat section mounted thereon and adapted to be shifted to a forwardly extended position, a back section fulcrumed on said frame and adapted to swing forward on its fulcrum to a position of horizontal alinement with said seat section when the latter is in its forwardly extended position, and a link pivotally connected to one of said sections and having sliding connection with the other whereby the shifting of one of said sections from one of its positions to the other will automatically cause a corresponding shifting of said other section.

Signed at Chicago this 1st day of February, 1908.

THEODORE G. WEYER.

Witnesses:

WM. R. RUMMLER,  
MARY M. DILLMAN.