

(No Model.)

G. H. SKINNER.
SOFA BED.

2 Sheets—Sheet 1.

No. 412,990.

Patented Oct. 15, 1889.

Fig. 1.

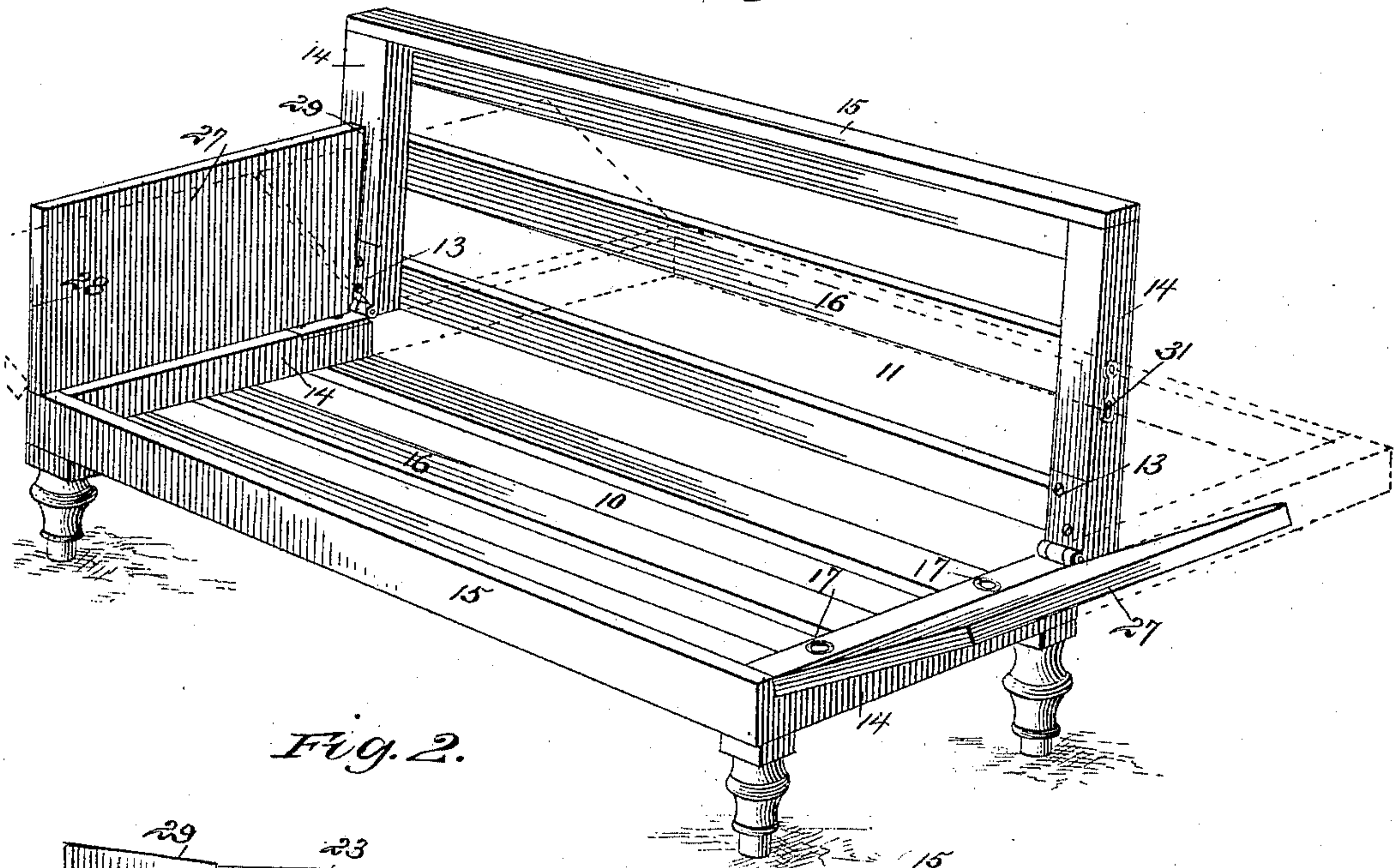
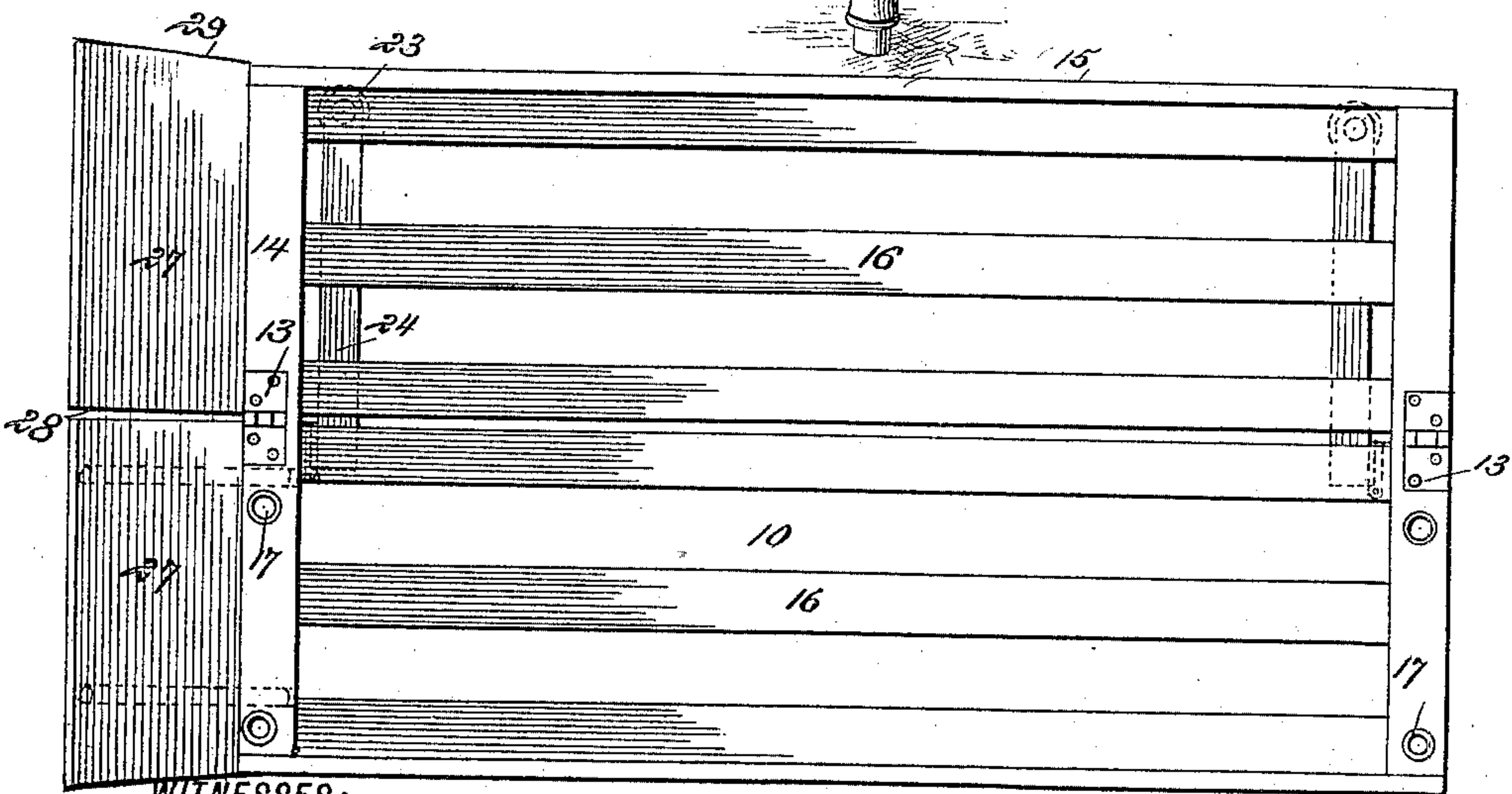


Fig. 2.



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G. H. Skinner

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ATTORNEYS.

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Fig. 3.

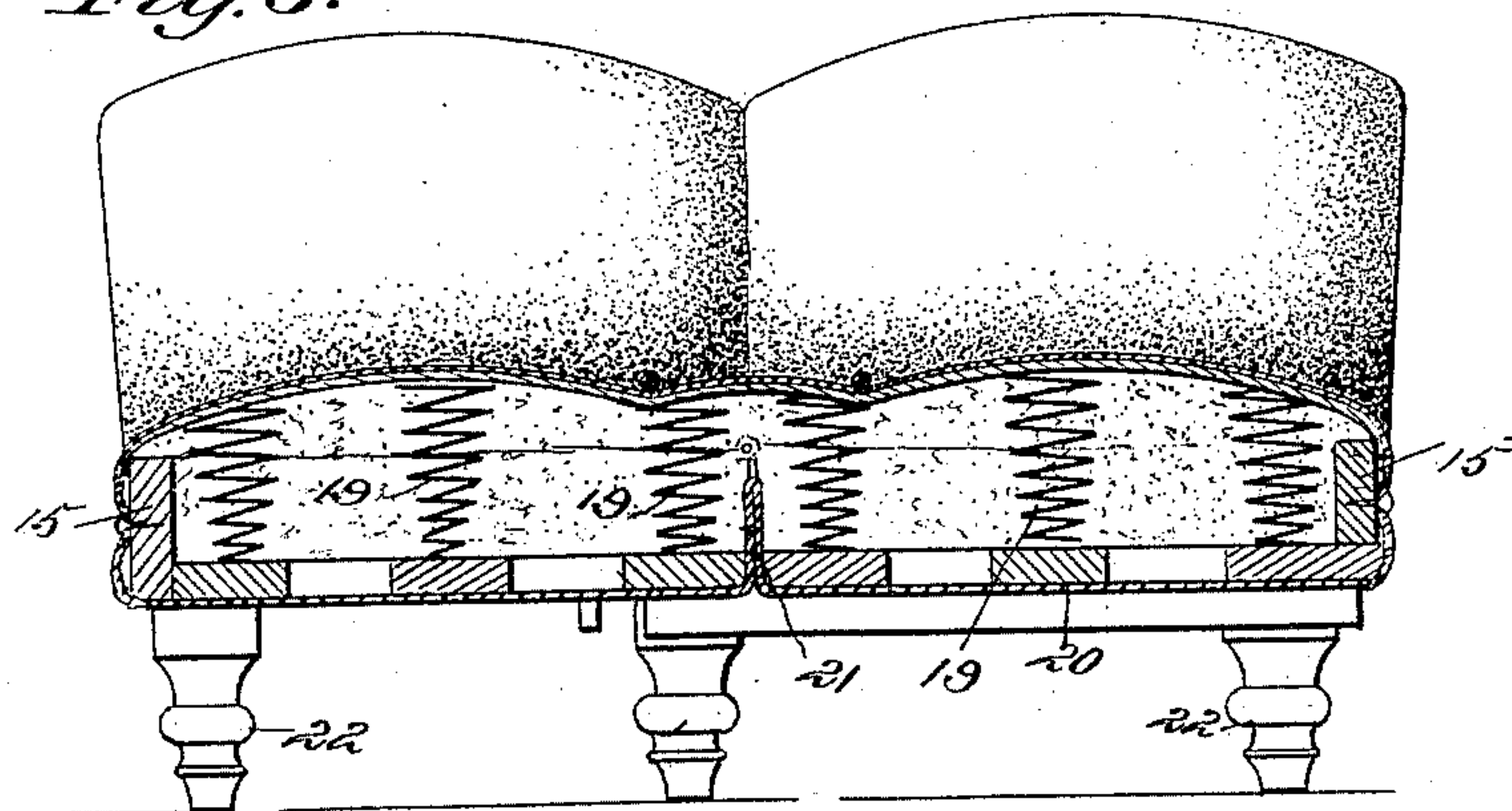


Fig. 4.

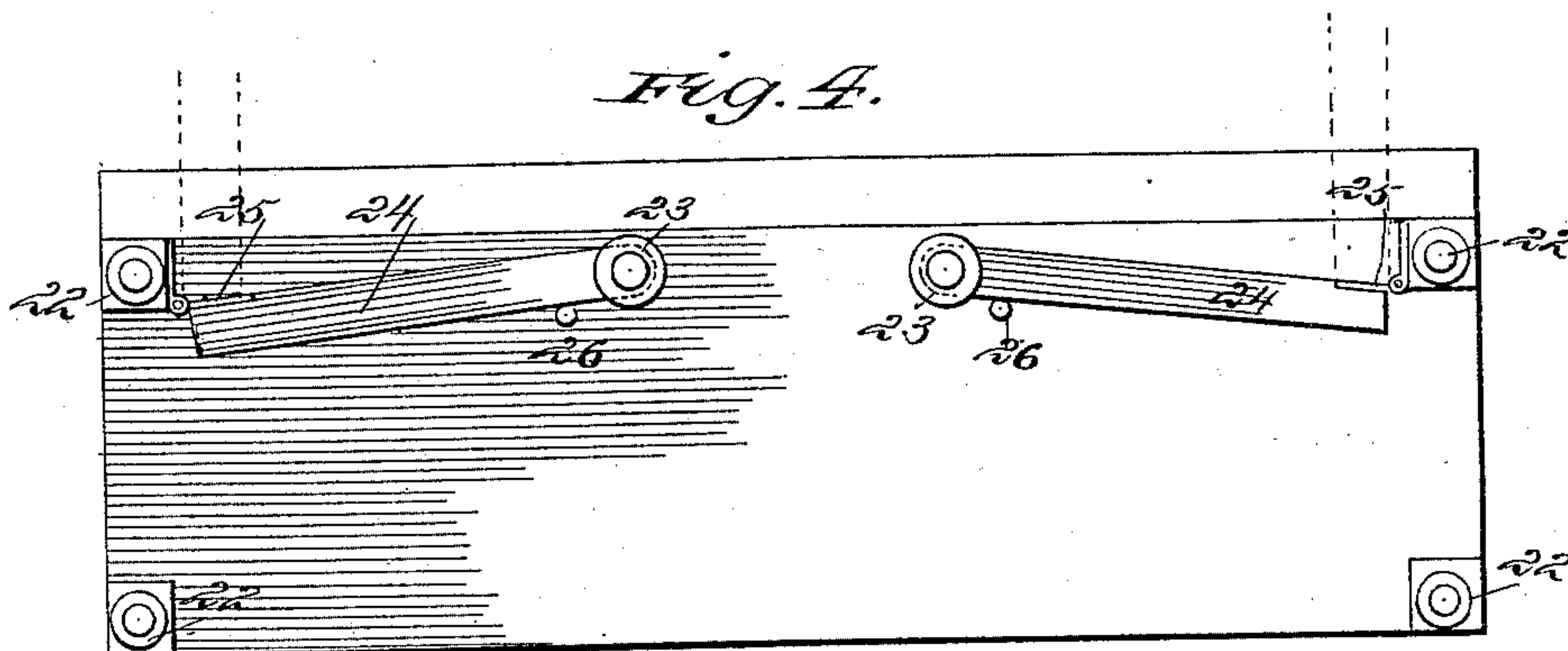


Fig. 5.

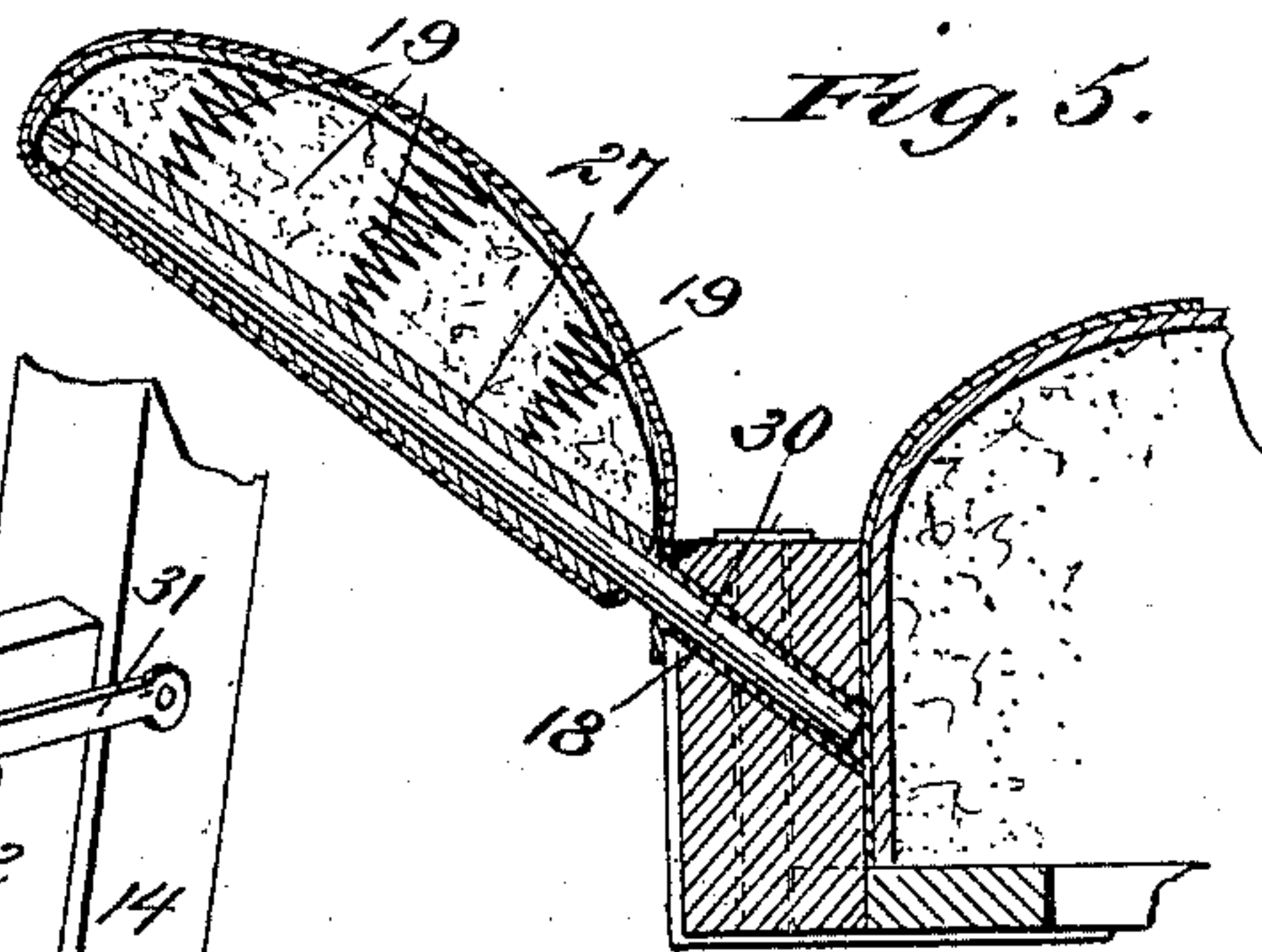
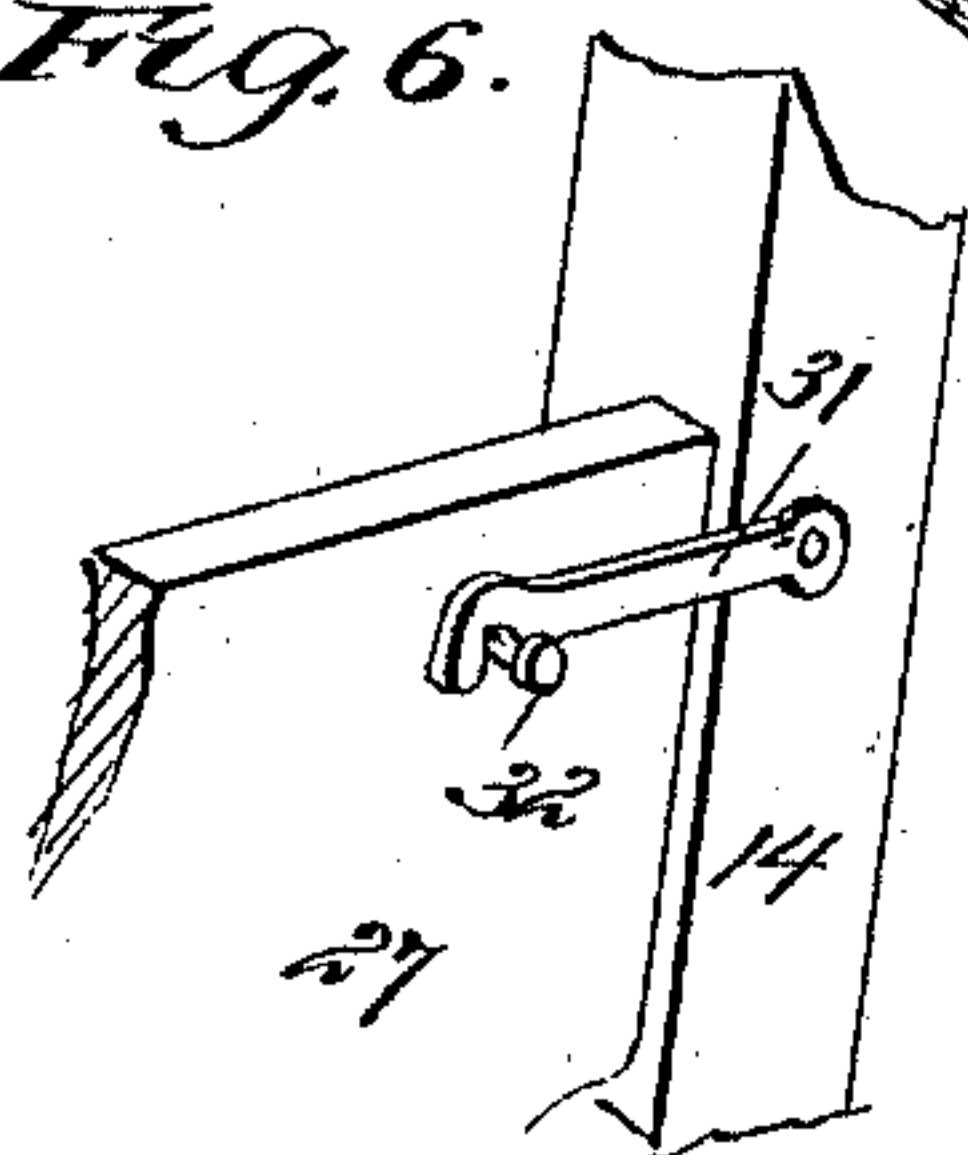


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE HENRY SKINNER, OF GUELPH, ONTARIO, CANADA.

SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 412,990, dated October 15, 1889.

Application filed November 9, 1888. Serial No. 290,376. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY SKINNER, of Guelph, in the Province of Ontario and Dominion of Canada, have invented new and useful Improvements in Sofa-Beds, of which the following is a full, clear, and exact description.

My invention relates to an improvement in sofa-beds, and has for its object to provide an article of furniture capable of being conveniently and expeditiously converted from a sofa into a bed, or vice versa, as desired.

The object of the invention is also to provide such an article of furniture of very simple and durable construction, wherein, when converted into a bed, the entire upper surface will be soft, and wherein the clothes will be free to hang down over the sides and the foot.

The further object of the invention is to provide a means whereby, when the article is in use as a sofa, it may be utilized as a right or left armed lounge, or wherein two arms—one at each end—may be employed, as found most desirable or convenient.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the frame of the article, illustrating the same in positive lines in position as a sofa, and also showing the adjustability of the arms, and in dotted lines the back is illustrated as thrown down to form a bed. Fig. 2 is a plan view of the frame in use as a bed. Fig. 3 is a transverse section through the upholstered frame when the article is in use as a bed. Fig. 4 is a bottom plan view of the article when in use as a sofa. Fig. 5 is a transverse section through one arm and a portion of the body-frame, and Fig. 6 is a detail perspective view illustrating one form of locking device employed to retain the arm in a vertical position when the article is in sofa form.

In carrying out the invention the bottom of the article consists of a bottom frame 10 and a back frame 11, hinged to the said bot-

tom frame. In connecting the two frames 10 and 11 the style of hinge employed is preferably a strap-hinge 13, as best illustrated in Fig. 1, and in attaching the said strap-hinges one member of the hinge is secured to the upper face of the bottom frame at the end, the other member being attached to the end of the back frame, whereby the knuckle of the hinge is brought over the point of intersection of the two frames, and the back frame is rendered capable of standing upward at a right angle to the bottom frame 10, or of being folded down horizontally in the same plane with the said bottom frame.

Each of the two frames 10 and 11 consists of two parallel end pieces 14 and an outer side piece 15, secured to the end pieces in any suitable or approved manner, and a series of slats 16, extending longitudinally of the frame parallel with the side pieces. In the upper surface of each of the end pieces of the frames two spaced apertures 17 are produced, fitted with a suitable metallic ferrule or collar, and in the outer sides of the said end pieces two other apertures 18 are produced, the said apertures being preferably so located as to just miss the bore of the upper apertures. The side apertures 18 are fitted with a ferrule in like manner to the other apertures, and extend inward and downward at an inclination. Both the upper and side apertures of the frame are made, preferably, to extend entirely through the end pieces.

Upon the several strips 16 of the frames 10 and 11 suitable springs 19 are secured, as best illustrated in Fig. 3, and by reason of the rectangular shape of the frame and the lack of obstructions the two frames may be richly and expeditiously upholstered. In upholstering the two frames the covering 20 at the rear of the back frame is carried downward over the joint of the two frames and secured to the front side of the bottom frame, as best illustrated in Fig. 3.

When the article of furniture is in use as a sofa—that is, when the back frame is carried upward at an angle to the bottom frame—the material 20 is tautly and smoothly drawn, and when the article is in use as a bed, as illustrated in Fig. 3, that portion of the covering 20 located at the joint of the frames

will be folded up upon itself, as illustrated at 21 in said Fig. 3.

It will be observed that when the article of furniture is folded down to form a bed the springs located upon the slats of the two frames near the joint of the same support the covering at the center an equal distance above the slats, as at the outer sides, or nearly so.

It is the intention in the perfect construction of the bed to so upholster the two frames that the upper surface will be essentially in the same plane and not indicate a central ridge, as illustrated.

In the construction of the frame the upholstering may, if desired, be carried around both ends and the outer sides, and when the two frames 10 and 11 are brought in horizontal position the covering employed when the article is in use as a bed may freely hang down upon both sides and the foot, as in an ordinary bed.

The bottom frame 10 is supported by suitable legs 22, located one at each corner, and the back frame 11 is supported in a horizontal position by auxiliary legs 23, which legs are attached to horizontal arms 24, and the said arms are connected by a strap-hinge 25 with the inner face of the rear legs 22, contiguous to the inner longitudinal side of the bottom frame, as best illustrated in Fig. 4. The knuckle of the hinge 25 is located at the inner ends of the rear legs, whereby the arms 24 may be carried outward beneath the back frame in contact with the same, and also in contact with the rear legs, as shown in dotted lines, the said legs serving as a stop to limit the outer movement.

When the arms 24 are in position to support the back frame, they are parallel with the ends of the same. The inward movement of the arms 24 is limited by pins or blocks 26, secured to and projecting downward from the under side of the bottom frame, the said pins or blocks being so located that the arms will assume (when in contact therewith) an outwardly-inclined yet horizontal position beneath the bottom frame, as shown in positive lines in Fig. 4. Thus when the article is in use as a sofa it has the additional support of the two legs 23, located one at each side of the center and at the rear.

The arms 27, adapted for engagement with the frames 10 and 11, are preferably constructed of a single piece of wood, having one straight vertical end 28 and an opposing upwardly-beveled end 29. The object of forming the said arms 27 with a vertical edge and an inclined or beveled edge is to give a comfortable inclination to the back frame when in position as a sofa, and to give the head portion a more symmetrical appearance when used as a bed. Two rods 30 are forced upward transversely through the block of wood constituting the body of the arms, as illustrated in Fig. 5, one end of each rod being adapted to extend outward from the said body-board in the same plane therewith. The rods 30 are so

located that one is made to enter the arm at each side of the center, and the space between the two arms is equal to the space between the frame-apertures 17 and also the apertures 18. The arms 27 may be upholstered in any suitable or approved manner, as best illustrated in Fig. 5.

When the back frame 11 is carried upward at a proper angle to the bottom frame to form a sofa, if a reclining-lounge is desired, the rods 30 of one arm are made to enter the vertical apertures 17 at one end of the bottom frame and the rods 30 of the other arm are entered the inclined apertures 18, as illustrated in Fig. 1. The back frame, which is provided at its edge with a hook or equivalent device 31, is held in contact with the vertical arm by the engagement of the said hook with a pin 32, secured in the outer surface of the vertical arm, as best illustrated in Fig. 6; but I desire it understood that I do not confine myself to the particular fastening device illustrated, as other equivalent fastening devices may be employed.

It will be readily observed, by reason of each frame 10 and 11 having vertical and inclined apertures 17 and 18 in the ends, that the arms at either end may be placed in a vertical or inclined position; that one arm only may be employed, or both may be used, if desired, and that when the article is folded down to form a bed, as illustrated in Fig. 3, both of the arms are located at the same end of the frames and placed in an inclined position.

When the article is in use as a sofa, the beveled ends of the arms are brought in engagement with the back frame, whereby a slight rearward inclination is imparted to the latter.

When the article is in use as a bed and both arms are to be placed side by side, the beveled ends of the arms are placed outward and their straight edges are made to abut.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the base-frame 10, provided with apertures 17 18, of different inclinations, in their end pieces, and the back frame 11, hinged to the base-frame 10, as shown, of detachable end arms 27, provided with rods adapted to enter the apertures 17 18, said arms each provided with a straight edge 28 and an inclined edge 29, said inclined edges adapted to be adjusted for contact with the hinged back frame when used as a sofa-back and adjusted with said inclined edges outward when used as a sofa-bed, and means for holding said ends and hinged back in position, substantially as and for the purpose described.

GEORGE HENRY SKINNER.

Witnesses:

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ALFRED E. BOURNE,

Both of the City of Guelph, Law Clerks.