

J. McGRATH.
Sofa-Bedsteads.

No. 154,504.

Patented Aug. 25, 1874.

Fig. 2.

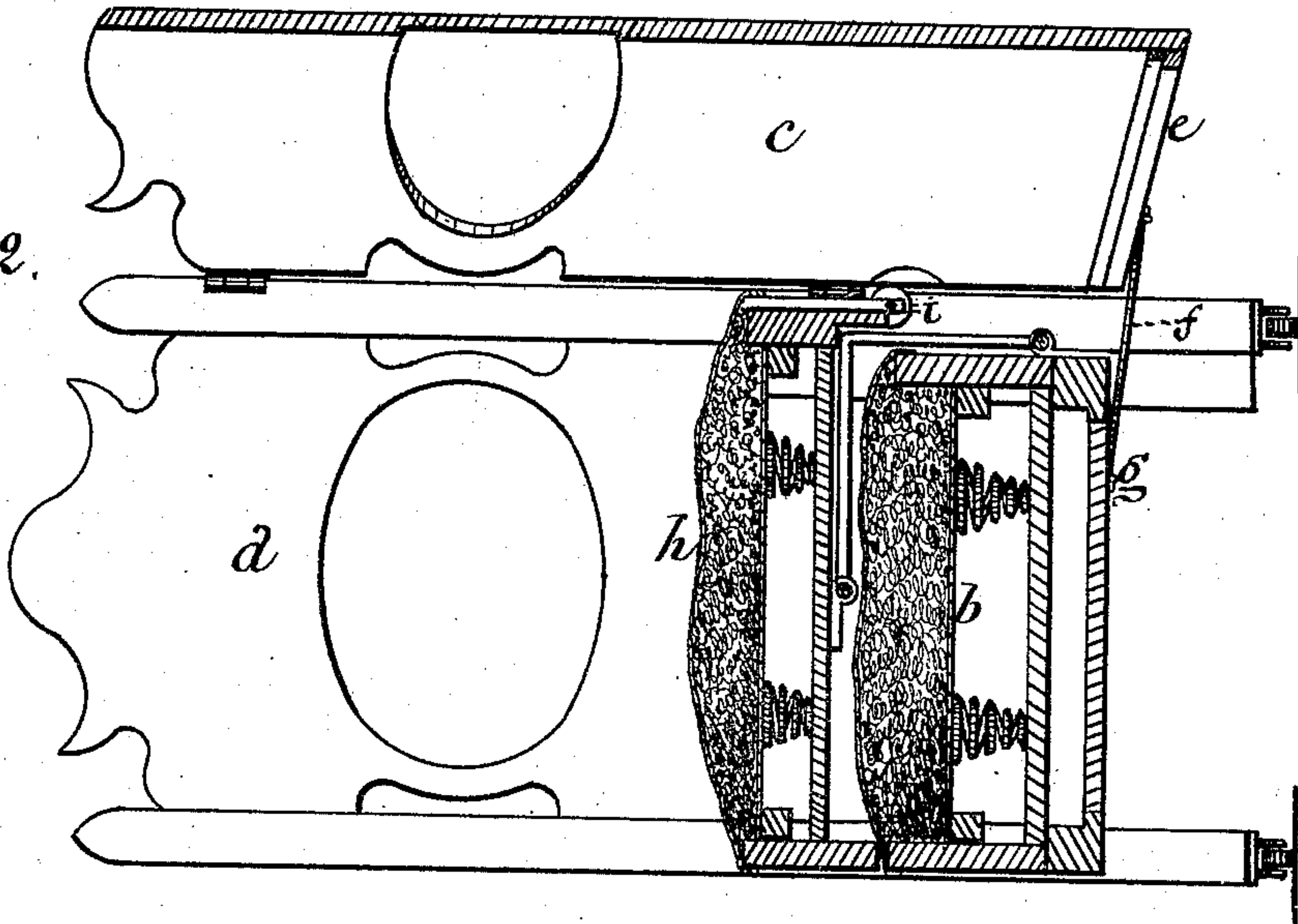
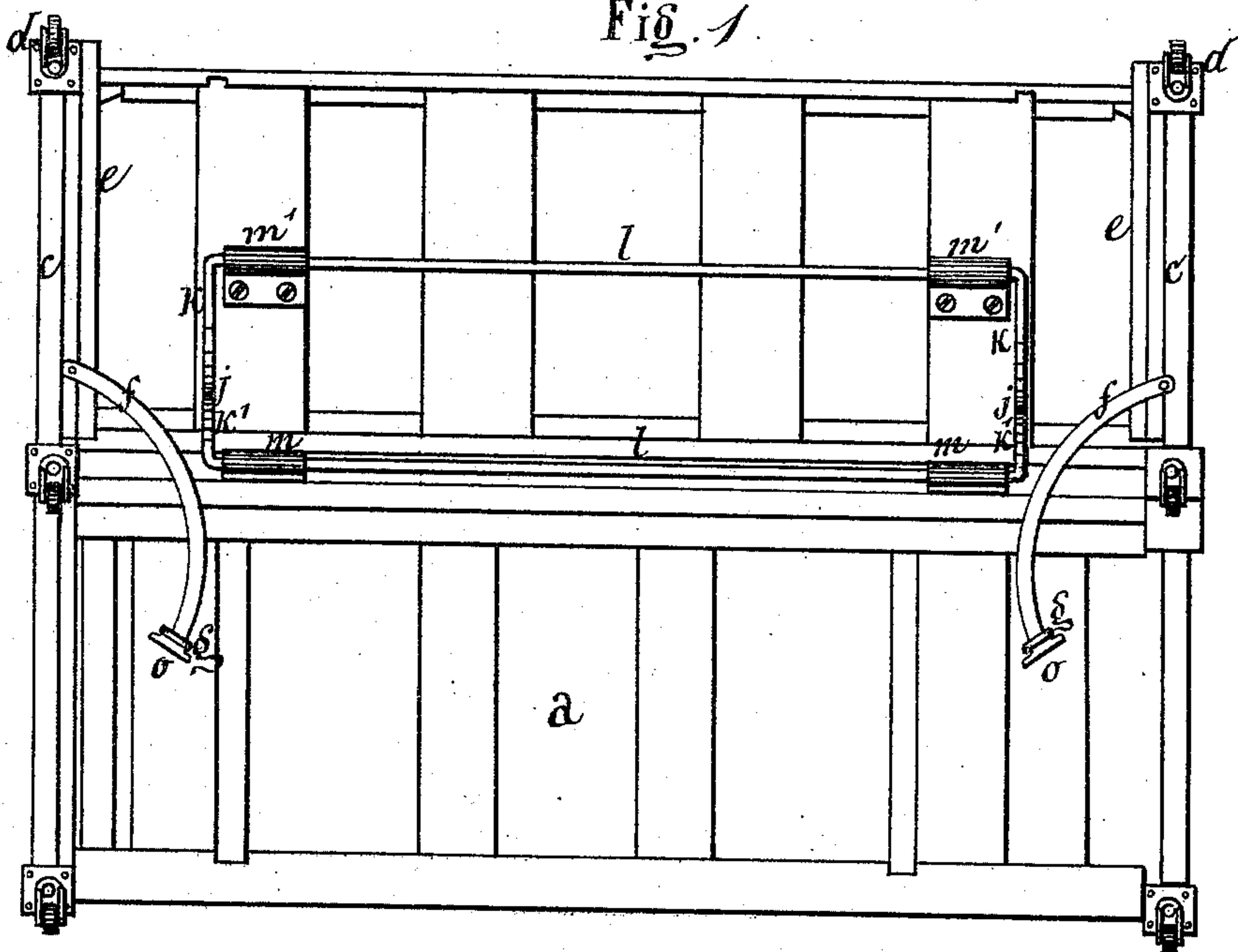


Fig. 1.



Witnesses
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Jno. J. Stollski, Jr.

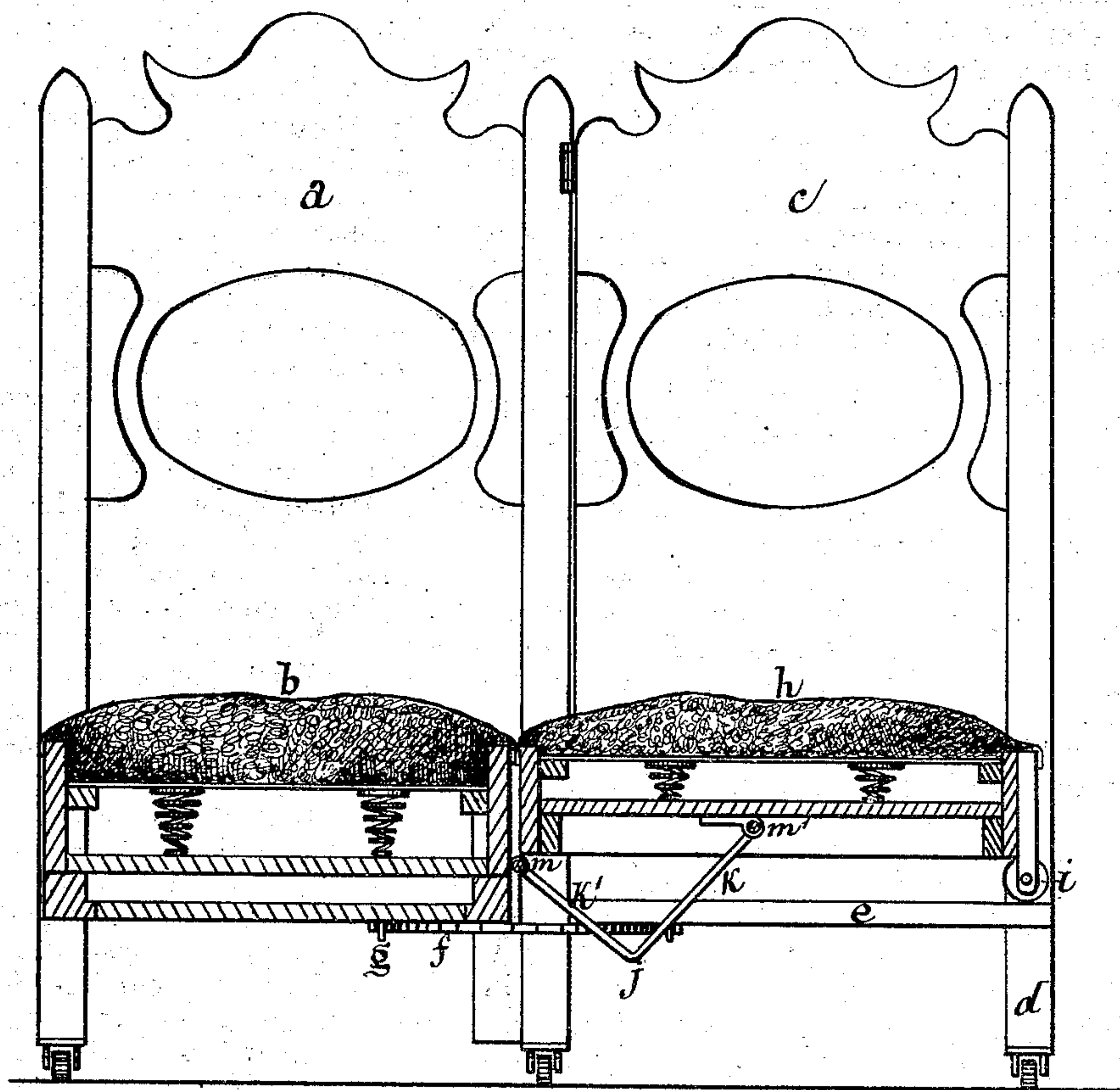
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Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH McGRATH, OF SEDALIA, MISSOURI, ASSIGNOR OF ONE-HALF HIS
RIGHT TO HERMAN B. STEEHN, OF SAME PLACE.

IMPROVEMENT IN SOFA-BEDSTEADS.

Specification forming part of Letters Patent No. 154,504, dated August 25, 1874; application filed
February 24, 1874.

To all whom it may concern:

Be it known that I, JOSEPH McGRATH, of Sedalia, in the county of Pettis and State of Missouri, have invented certain new and useful Improvements in Sofa-Bedsteads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to that class of bedsteads known as sofa-bedsteads; and consists in the construction and arrangement of a series of concentric bent levers, guide-strips, and friction-rollers, whereby the separate parts of the bed may be folded or unfolded so as to form a single bed or lounge, or a double bed, as may be desired.

In the drawings, Figure 1 is a bottom view, Fig. 2 a vertical transverse sectional view, with the parts folded, and Fig. 3 a vertical transverse sectional view, with the parts unfolded.

a is an ordinary single bedstead or lounge, provided with the spring-bottom *b*. *c* are folding backs, hinged to the posts of the bedstead. They are constructed of the same width and corresponding design as the head and foot boards of the bed, and when folded against the side of the bed they meet centrally, and form a handsome ornamental back. When opened, they correspond with the head and foot boards of the single bed, and, with the latter, form head and foot boards for the double bed, and supports for the folding bottom, hereinafter described. The standards or posts *d* of the folding backs are provided with casters, which move in the same plane with the casters of the posts of the bedstead *a*. When folded, the backs are secured by any suitable means, and when opened they are held in place as hereinafter shown. *e e* are guides and supporting-strips, secured to the lower part of the backs *c*. They serve as ways, on which move the friction-rollers, and as supports for the folding bed-bottom, hereinafter described. *f f* are two curved arms, one end of each of which is secured to the under edge of the back *c*, and the other ends are secured

by, and move in, the staples *g*. The ends *o* are provided with bosses or stops, which catch against the staples *g*, and thus prevent the backs *c* from being opened beyond the line of head and foot boards of the bed *a*. *h* is a folding bed-bottom, similar in construction to the bottom *b*. It is made slightly wider than the bottom *b*, to permit the better operation of the levers hereinafter described. Its rear corners are provided with the rollers *i*, attached so as to extend below the side rails. In folding or unfolding the bed these rollers move on the strips *e*; and, when the bed is unfolded, they support the outer side, retaining the bottom *h* on a level with the bottom *b*. *j* are the concentric bent-lever hinges, having their arms *k k'* bent at right angles to each other, and joined together by the connecting-rods *l l*. The longer arm, *k*, is made in length equal to about half the width of the bottom *h*, so that, when the bed is folded, said arm will fit within the side rail; and the shorter arm, *k'*, is of such length that it will support the bottom *h* in a level position when said bottom is folded. The ends of the levers are hinged, by the eyes or bearings *m'*, to the under side and center of the bottom *h*, so that said bottom is equally balanced thereon, and, by the bearing *m*, to the side rail of the bottom *b*. The eyes are placed on the connecting-rods *l l*, and against the arms *k k'*, so that in the act of folding or developing the bed all unsteady lateral motion is prevented. The rear side of the bottom *h*, when folded, is supported by the arms *k'*, and the front side rests on the upper edge of the front side of the bottom *b*.

The bed being folded, as shown in Fig. 2, and it being desired to unfold it, so as to use it as a double bed, the backs *c* are swung around, the arms operating to prevent their opening beyond the extended line of the head-boards, and so as to bring the guide-strips *e* in proper place for the reception of the rollers *i*; the bottom *h* is turned up, the lever *j* operating as a hinge for the purpose, until its side rests on, and is perpendicular to, the strips. Then, by a slight pressure of the bottom downward and forward, the rollers moving on the strips, the bottom will be carried along said strips by the rollers *i* till it will rest level with, and

against, the bottom *b*. The bottom is supported in place by the rollers *i* resting on the strips *e*, and the front rail resting close against the rear rail of the bottom *h*, and on the eyes or bearings *m*, in which position it is firmly held by the levers *j*. In folding the bed the front side of the bottom *h* is lifted so that it will pass clear of the rear of the bottom *b*, when a slight pull will bring the bottom *h* forward, the levers *j* so operating as to carry said bottom *h* to the proper place immediately above, and at rest on, the bottom *b*, the rear part of said bottom *h* being sustained by the arms *k'*. The backs *c* are now closed and secured, and a single bed or lounge is made.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the bedstead *a* and bottom *h*, of the concentric lever-hinges *j*, substantially as and for the purpose set forth.

2. The combination, with the bedstead *a*, of bed-bottom *h* and rollers *i*, lever-hinges *j*, and guide-strips *e*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of February, 1874.

JOSEPH McGRATH.

Witnesses:

A. J. SAMPSON,

A. H. RANDALL.