

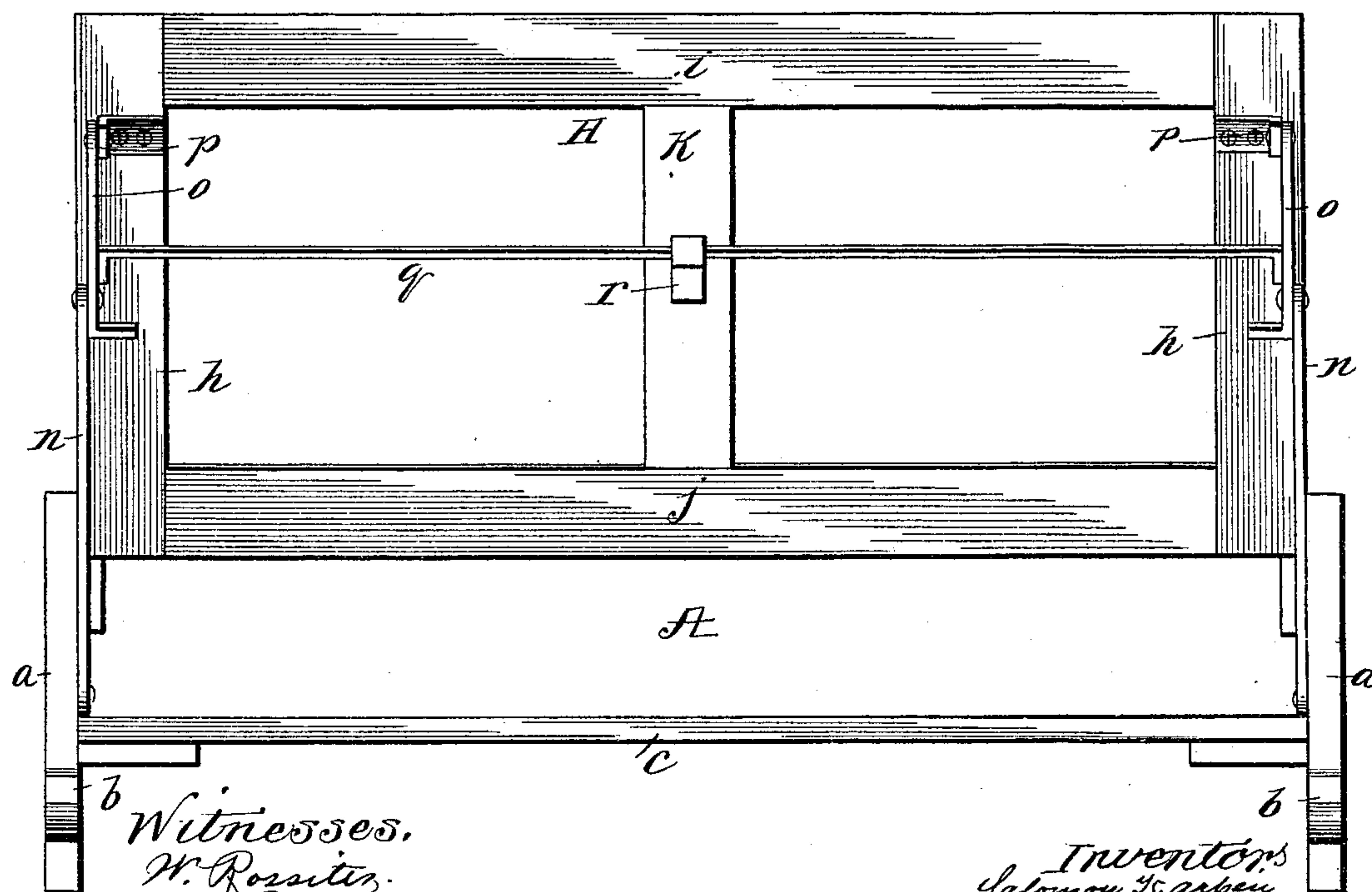
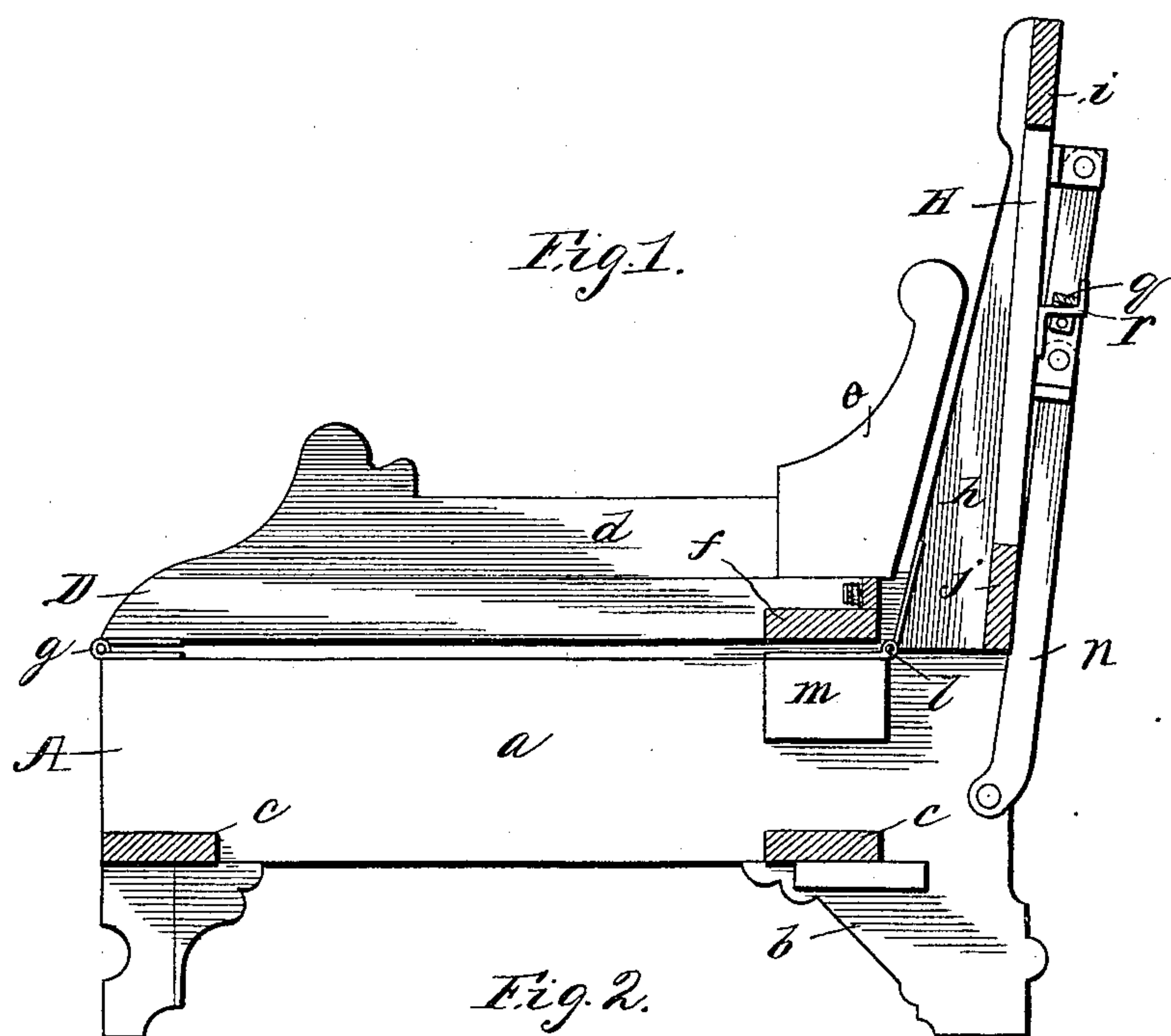
(No Model.)

2 Sheets—Sheet 1.

S., O. & A. KARPEN.  
SOFA BED.

No. 370,065.

Patented Sept. 20, 1887.



Witnesses,  
W. Rosenthal,  
O. Lubkert.

Inventors  
Salomon Karpen  
Oscar Karpen  
Adolph Karpen  
By Wm. H. Lotz, Attys.

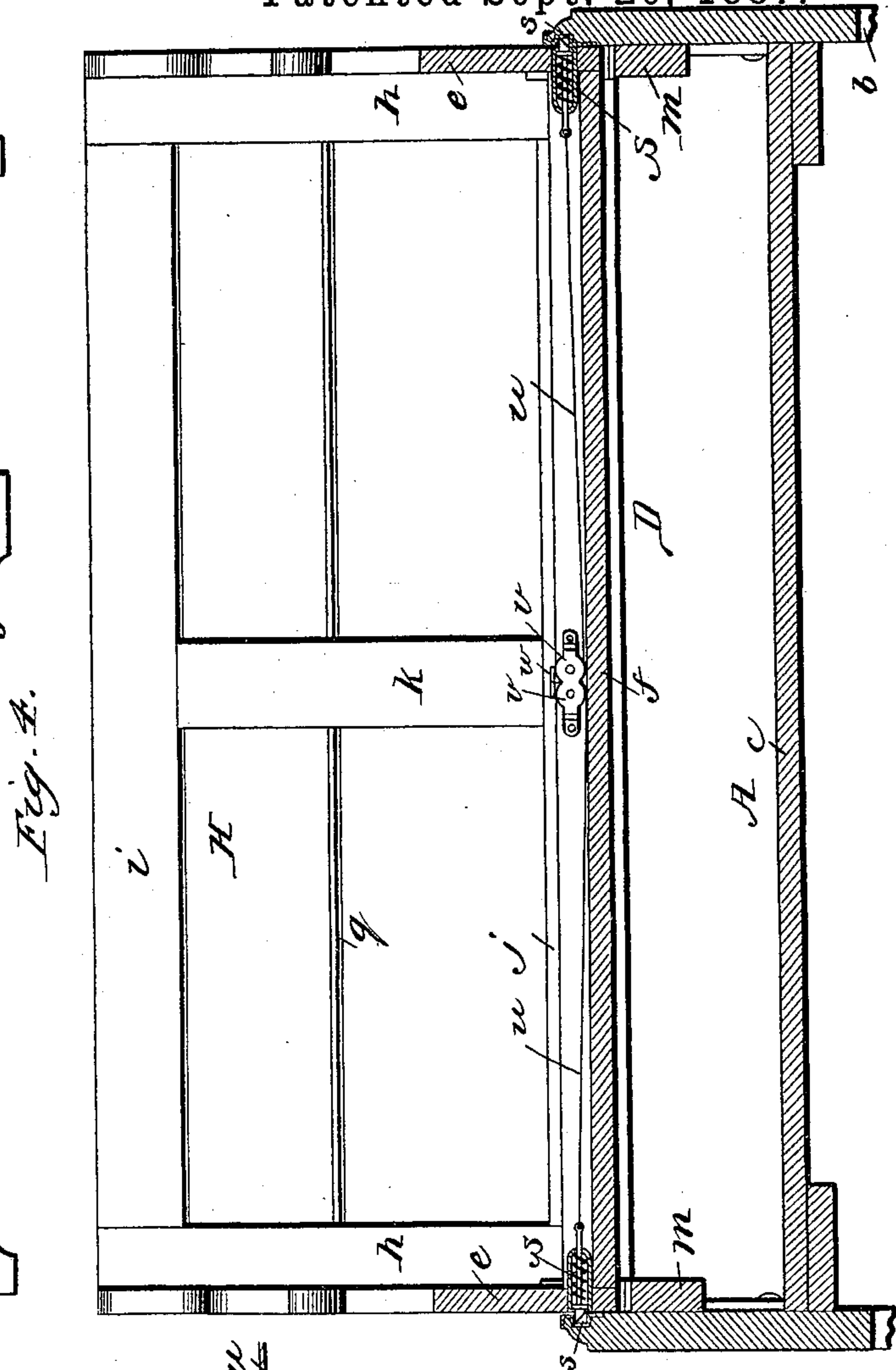
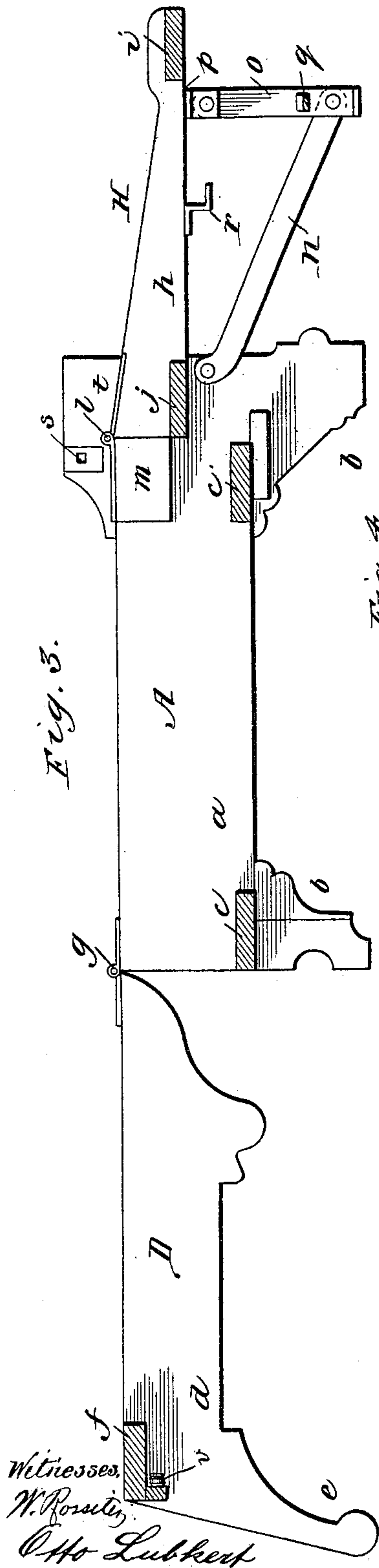
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2 Sheets—Sheet 2.

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Inventors  
Solomon Karpen  
Oscar Karpen  
Adolph Karpen  
By *Wm. H. Lutz* Atty.



# UNITED STATES PATENT OFFICE.

SALOMON KARPEN, OSCAR KARPEN, AND ADOLPH KARPEN, OF CHICAGO, ILLINOIS.

## SOFA-BED.

SPECIFICATION forming part of Letters Patent No. 370,065, dated September 20, 1887.

Application filed October 26, 1886. Serial No. 217,275. (No model.)

*To all whom it may concern:*

Be it known that we, SALOMON KARPEN, OSCAR KARPEN, and ADOLPH KARPEN, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sofa-Beds, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to the class of sofas, lounges, or easy-chairs that are convertible into beds, and more particularly to that class of such furniture having a hinged back arranged to occupy either a vertical or horizontal position, and in which the seat portion is made of two sections hinged together to be extended; and our invention consists in the construction and combination of parts, hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 represents a sectional end elevation of a sofa-frame embodying our improvements; Fig. 2, a rear elevation of the same; Fig. 3, a sectional end elevation of the sofa as converted into a bed; Fig. 4, a longitudinal vertical section of the sofa as folded and exposing the attachments for locking the seat-sections together, and Figs. 5 and 6 detail views of such locking arrangement.

Corresponding letters in the several figures of the drawings designate like parts.

A denotes the main frame, composed of end pieces, *a*, with legs *b*, connected by longitudinal bars *c*, and D is the extension-frame, composed of end pieces, *d*, with legs *e*, connected by longitudinal bar *f*. The pieces *d* of frame D are flexibly connected with pieces *a* of frame A by hinges *g*, and when folded the legs *e* form ornamental brackets adjoining back H, that is composed of end pieces, *h*, connected by longitudinal bars *i* and *j*, which latter are again connected by central vertical strip, *k*. The back H is sufficiently shorter than frame A that it will clear the end pieces, *a*, and it is flexibly connected with such frame A by hinges *l*, secured against the front edge of sides *h* and upon blocks *m*, fixed against the interior faces of pieces *a*. A longer bar, *n*, is pivoted with its lower end against the inward face of each piece *a* of frame A, and its upper end is pivotally connected with one end of a shorter bar,

*o*, the other end of each of which is again pivotally coupled to an eye-bracket, *p*, fixed against the rear end pieces, *h*, of back H, each pair of such bars *n* and *o* forming a toggle-joint that, when straightened out, will sustain the back H on its vertical position, and that, when folded rearward, will release the back to drop to a horizontal position, with the bars *o* then forming the supporting-legs for the same, which legs, being held rigid in such position by the bars *n*, form braces thereto, as shown by Fig. 3. The two bars *o* are also longitudinally connected by a bar or rod, *q*, that, when the back H is swung to its upright position, can be sprung upward sufficiently to engage hook *r*, that is fixed to strip *k* of such back, thereby locking the toggle joints against releasing the back on their own accord.

Between the frames A and B, when folded, is shut in the mattress, that otherwise forms the bed, and must be compressed somewhat for the frame D to come down to a bearing upon frame A, and when not occupied by a person sitting upon it the mattress by its elastic force would lift such frame D, and for the purpose of holding down the frame D we secure in each end piece, *d*, just above longitudinal bar *f*, a spring-bolt, S, engaging with notches *s* of bracket *t*, that are rigid with end pieces, *a*, of frame A, and to these bolts S we secure the ends of a spring or cord, *u*, the middle doubled-up portion of which is passed between sheaves *v*, secured in a casing to the central portion of bar *f*, and is then knotted to a handle, *w*, for retracting and disengaging both bolts S from their notches *s* simultaneously. In folding the seat and pressing it down the bolts S will be self-locking.

It will be readily seen a sofa, lounge, or chair thus provided with our improvements will make a strong and durable bed that for converting is easily manipulated.

We are aware that toggle-levers have been used for supporting a sofa-back in an upright position and for sustaining it in a horizontal position when turned into a bed, and that spring-catches have been secured upon the back of said sofa-back to engage the toggles and hold them when the back is raised to an upright position, said catches being operated by cords or connections from a common central point, and we do not claim such.

What we claim is—

In a sofa-bed, the combination, with the central portion, A, and back portion, H, hinged together, said back portion being provided  
5 with a hook, *r*, of the toggle-levers *n* and *o*, connected to the parts A and H, respectively, and the spring-bar *q*, uniting the pairs of toggle-levers and having capacity for being sprung into and out of engagement with hook *r*, as  
10 set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

SALOMON KARPEN.  
OSCAR KARPEN.  
ADOLPH KARPEN.

Witnesses:

WM. H. LOTZ,  
OTTO LUBKERT.