

T. S. JAMES.  
SELF CLOSING SEAT AND CHAIR.  
APPLICATION FILED MAR. 8, 1905.

2 SHEETS—SHEET 1.

Fig. 2

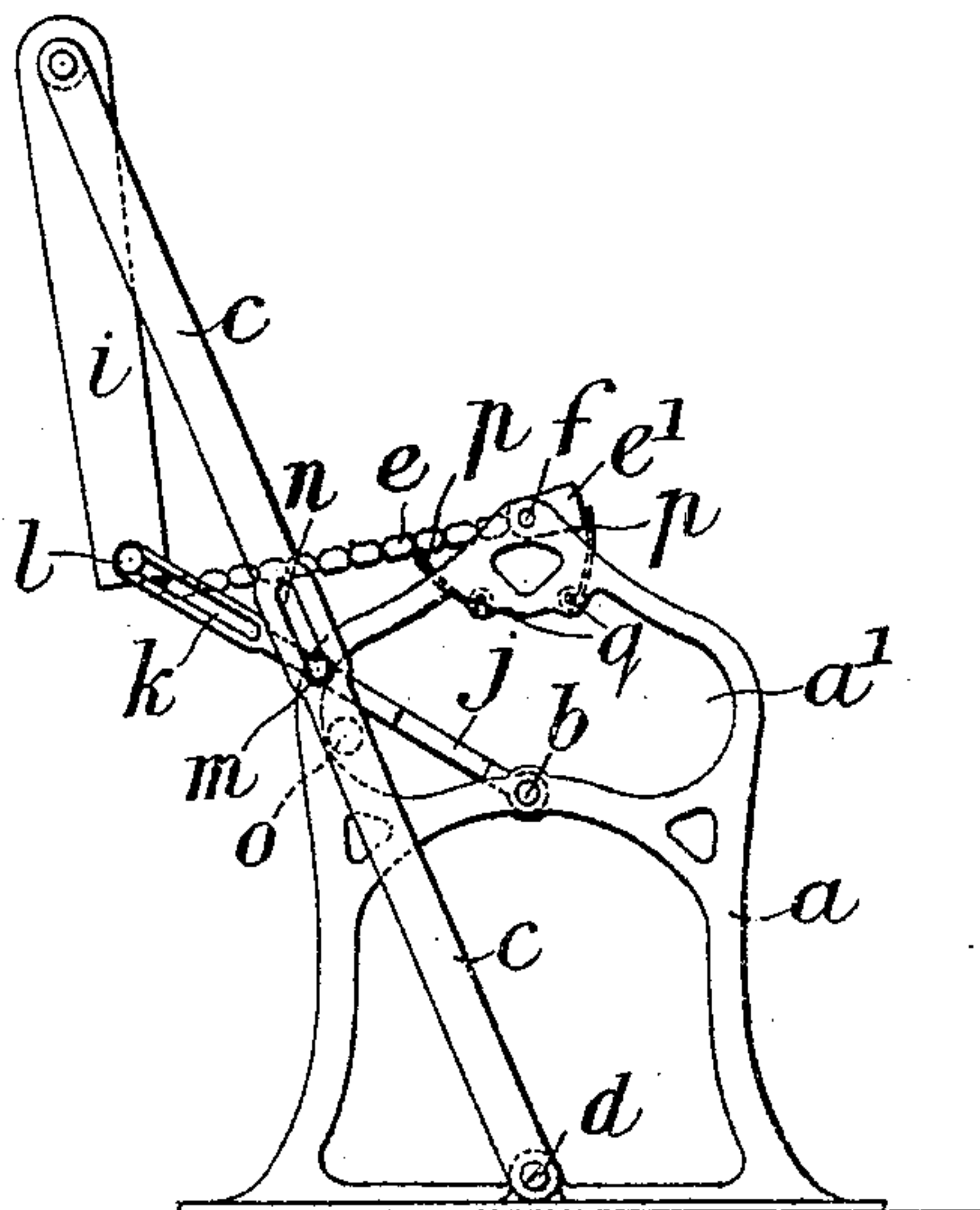


Fig. 1

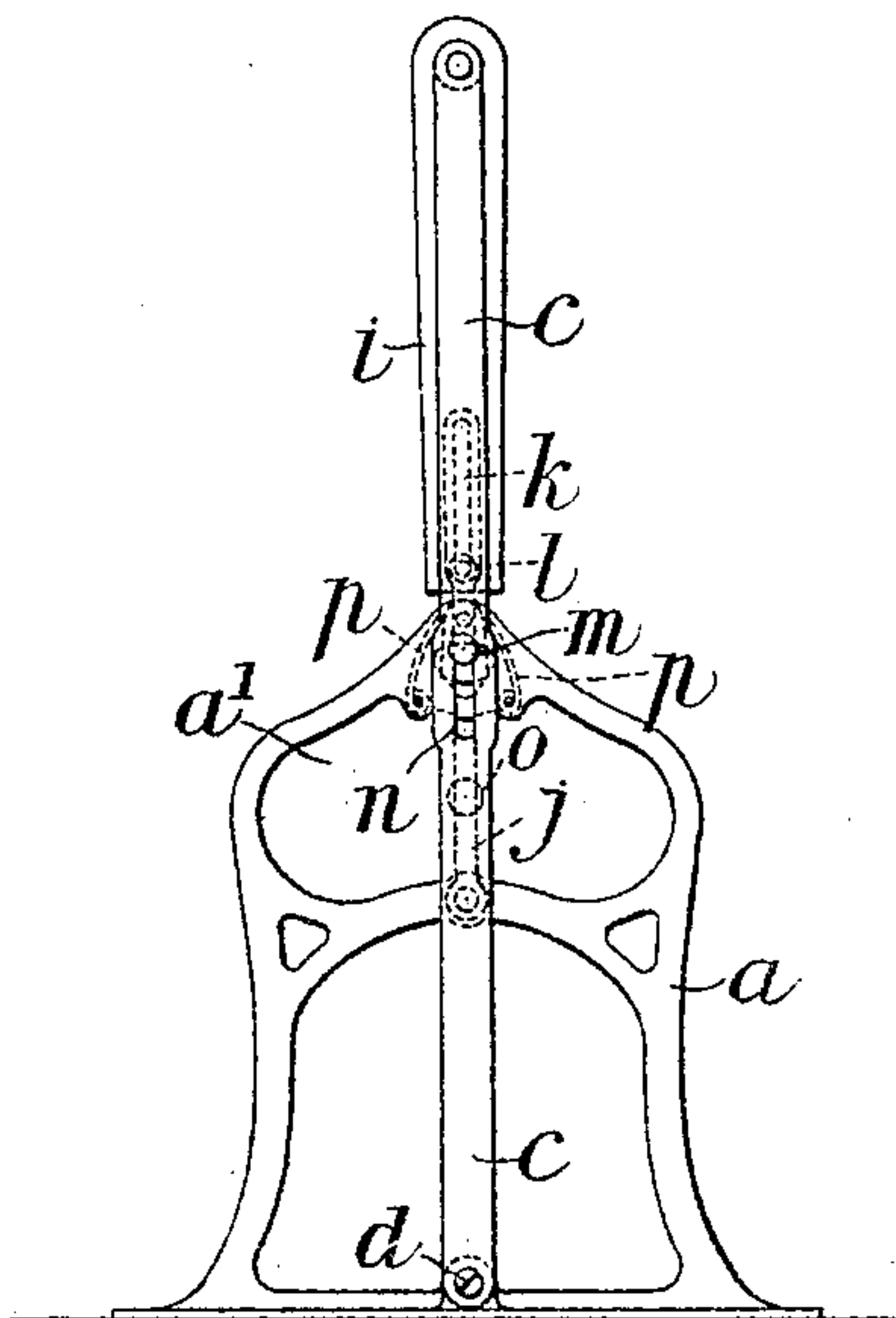


Fig. 3

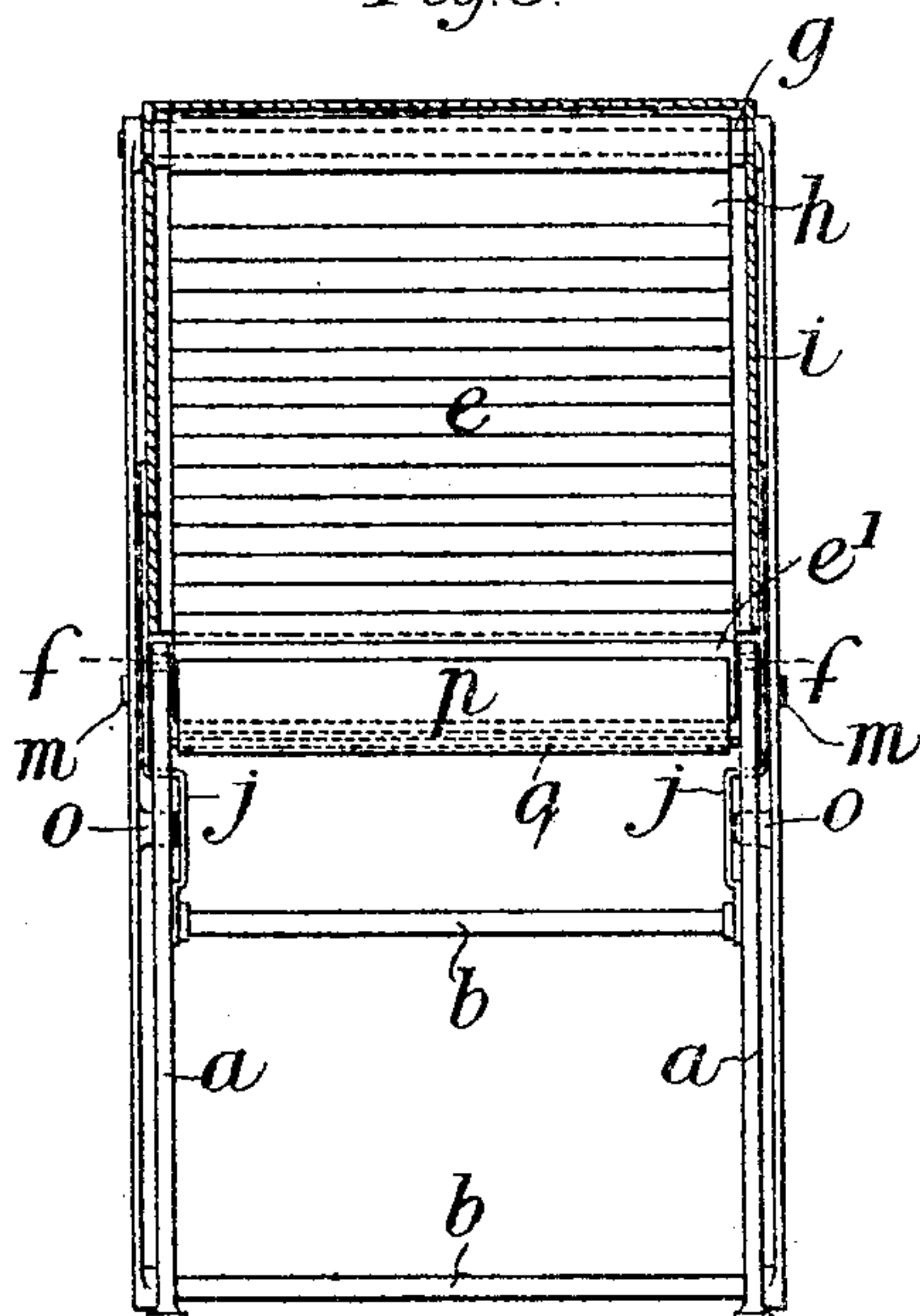
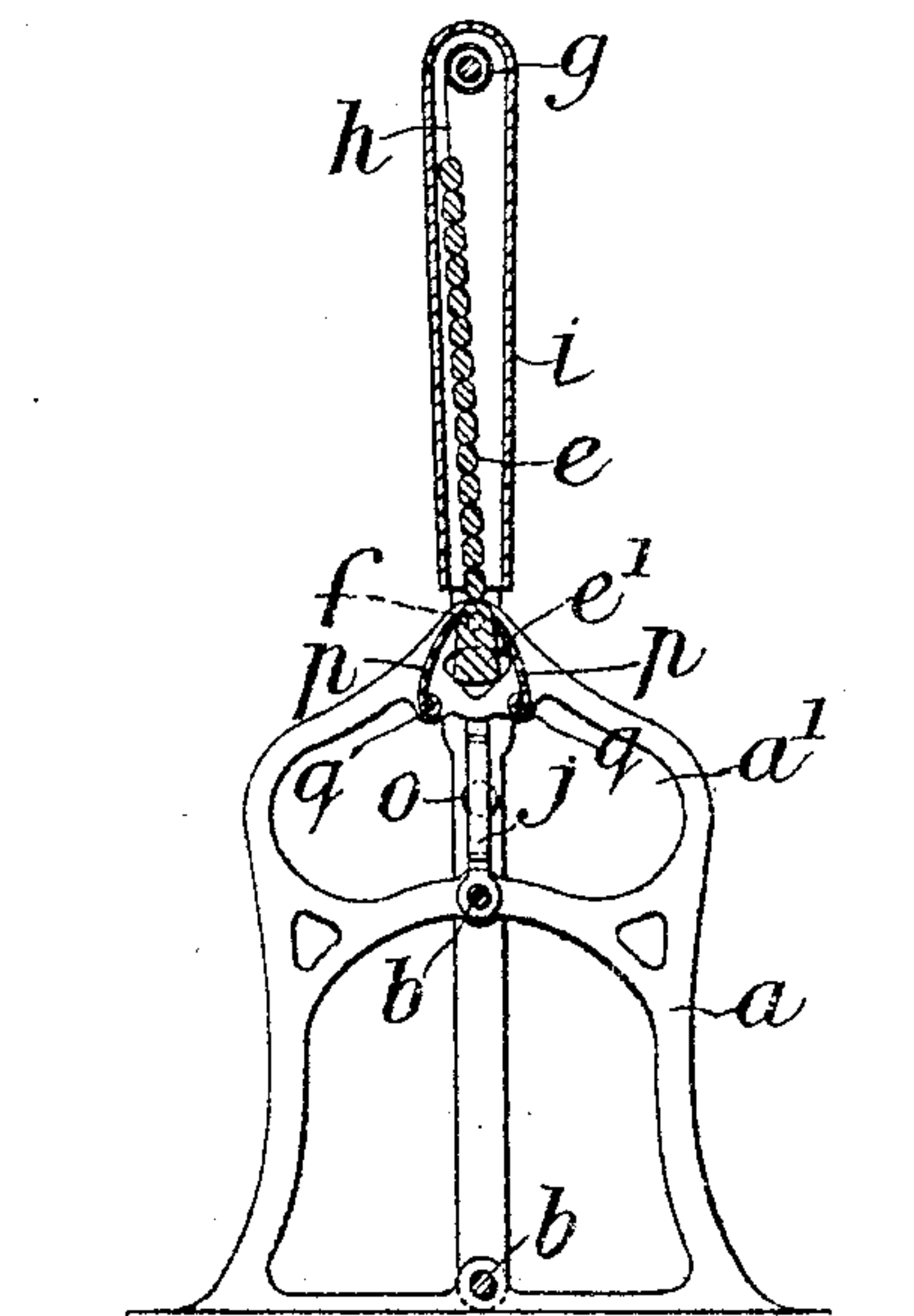


Fig. 4



Witnesses

John E. Dougfield.  
Ch. K. Kasper

Inventor.

Thos. S. James

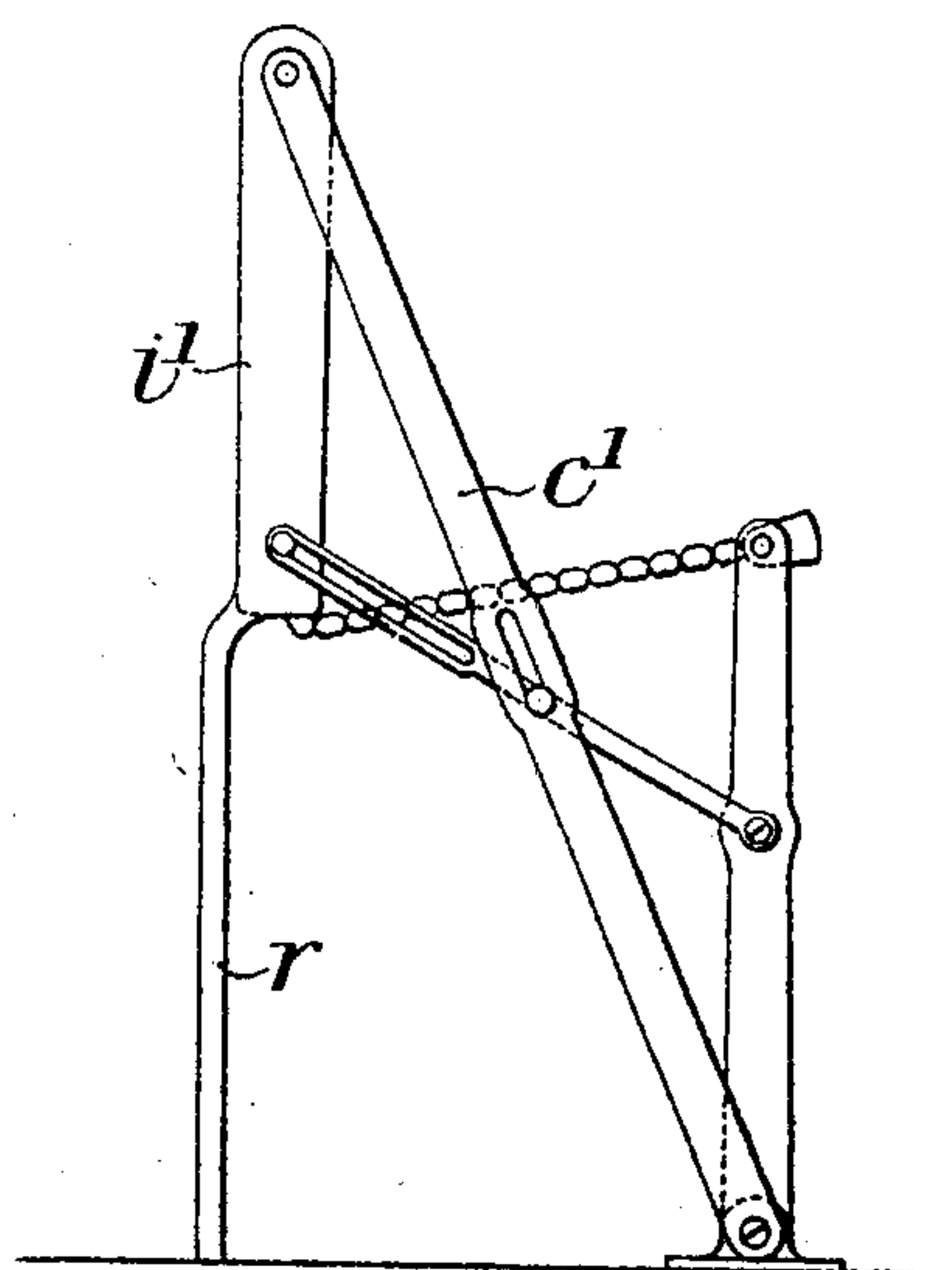
No. 805,799.

PATENTED NOV. 28, 1905.

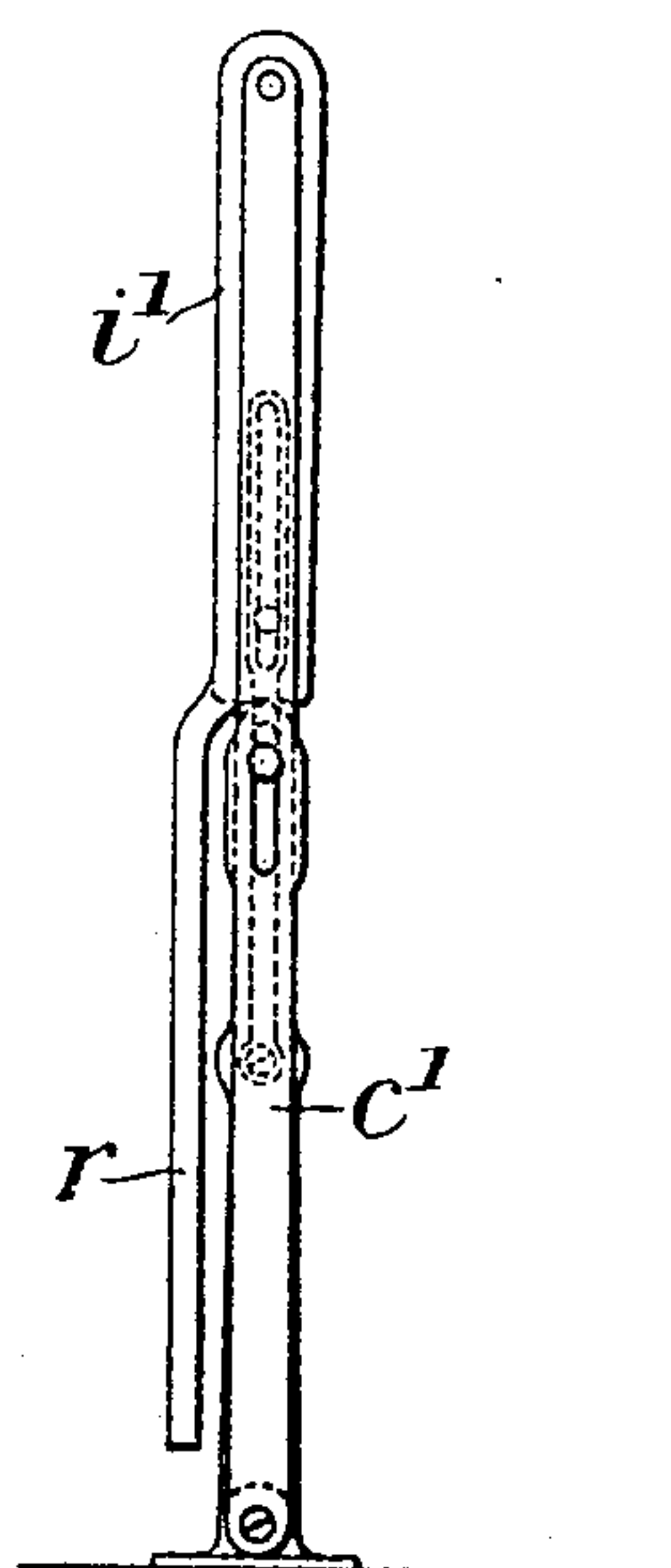
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SELF CLOSING SEAT AND CHAIR.  
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2 SHEETS—SHEET 2.

*Fig. 5.*



*Fig. 6.*



*Witnesses.*

*John E. Dousfield,*  
*Ch. Redfern*

*Inventor.*

*Thos. S. James*



# UNITED STATES PATENT OFFICE.

THOMAS SPENCER JAMES, OF CHISWICK, ENGLAND.

## SELF-CLOSING SEAT AND CHAIR.

No. 805,799.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed March 6, 1905. Serial No. 248,557.

*To all whom it may concern:*

Be it known that I, THOMAS SPENCER JAMES, a subject of the King of Great Britain, residing at Courtenay Works, Strand-on-Green, Chiswick, in the county of Middlesex, England, have invented new and useful Improvements in Self-Closing Seats and Chairs, of which the following is a specification.

This invention relates to improvements in self-closing seats and chairs, and is applicable to free seats and also to seats which are locked when in the closed position and adapted to be released through the medium of coin-freed or other mechanism.

According to the invention the improved chair comprises a flexible seat proper and a hollow back or casing within which the flexible or roll seat is automatically drawn or caused to enter when not in use.

To enable the invention to be fully understood, I will describe it by reference to the accompanying drawings, in which—

Figure 1 is a side view of a self-closing seat constructed according to the invention, the seat being in its closed position. Fig. 2 is a similar view to Fig. 1, but showing the seat extended for use. Fig. 3 is a sectional front view of the seat in the position shown in Fig. 1, and Fig. 4 is a sectional side view, also showing the seat in the position indicated in Fig. 1. Fig. 5 is a view similar to Fig. 2, but showing a slight modification. Fig. 6 is a side view of the same, but with the parts in the closed position.

Referring to Figs. 1 to 4, the frame or support of the seat comprises the two side members *a a*, connected together by the tie-bars *b b*. *c* is a frame pivoted at its lower end *d d* to the support *a a*, and *e* is the flexible seat, shown in the drawings as being constructed of a series of slats hinged together in a well-known manner. This seat is connected at one end by the pivots *f f* to the frame *a a* and at the other end to a spring-roller *g* by webbing or the like *h*, the said roller being supported in bearings in the upper part of the hollow casing *i*, which forms the back of the seat, as shown clearly in Fig. 2. Instead of the spring-roller *g* coil or other springs may be employed.

*j j* designate a lever-frame pivoted at its lower end to the support *a a* and provided with the slots *k k* at its other end engaging pins *l l* on the lower part of the sides of the casing *i*. The lever-frame *j j* is also furnished with pins *m m*, engaging slots *n n* in the frame *c*.

*o o* are stop-pins or projections on the frame *c*, the said pins extending into gaps *a'* in the frame *a a* and serve, by coming into contact with the frame around the gap, to determine the limits of movement of the said frame.

With chairs constructed as above described the frame *c* is normally held in the upright position (indicated in Figs. 1, 3, and 4) by the spring-roller *g*, the tension of which draws the flexible seat *e* within the casing *i*. If now the frame *c* be pushed into the inclined position shown in Fig. 2, the casing *i* is moved relatively with the said frame *c* by the action of the lever-frame *j*, which is itself controlled by the frame *c*. The movement of the casing *i* causes the seat *e* to be exposed and the parts are maintained in the extended position by the weight of the person using the seat. As soon as the chair is relieved of this weight the parts return under the action of the spring-roller *g* to the position shown in Figs. 1, 3, and 4.

In Figs. 1 to 4 the support *a a* is formed with the gaps *a' a'* extending on both sides of a vertical line drawn through the pivot *d*, so that the frame *c* can be moved on either side of its central position, whereby the seat is rendered reversible and well adapted for use on tram-cars, omnibuses, and the like. Where, however, the seats are not required to be reversible—for instance, in gardens, parks, and like places—the gap need only be formed on one side of the said vertical line.

*p p* are flaps for covering and protecting the front portion *e'* of the flexible seat when the latter is drawn within the back *i*, the said flaps being hinged upon rods *q q*, carried by the frame *a a* and provided with springs which maintain the flaps in contact with the said portion *e'*. When the seat is extended, as in Fig. 2, the flaps assume the position shown in the said figure.

In the seat or chair illustrated in Figs. 5 and 6 the inclined position of the back-frame *c'* is determined by legs or an extension *r* on the back *i'*, which rests upon the floor when the chair is in position for use, as shown in Fig. 5. Fig. 6 shows the chair in its closed position. This form of chair or seat is well adapted for use in theaters and other buildings on account of the small amount of space it occupies when closed.

Means can be provided for locking the seat in the closed position—such, for example, as coin-freed mechanism of any suitable kind.

The seats may be used as a medium for fixed



advertisements, or the advertisements may be changed by suitable means. If necessary, collapsible arms may be provided for the seats.

Having now particularly described and as-  
5 certain the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A self-closing seat or chair comprising a flexible seat fixed at one end to a support,  
10 a hollow back or casing within which the other end of the flexible seat is arranged and means whereby when the back is moved relatively with the said fixed end of the flexible seat the latter will be drawn into or out of the casing,  
15 substantially as described.

2. A self-closing seat or chair comprising a flexible seat, a support to which one end of the flexible seat is fixed, a hollow back or casing, a spring connection within the casing for  
20 the other end of the flexible seat, a back-frame pivoted to the support and attached to the hollow back, and means for determining the position of the back-frame when inclined to expose the flexible seat, substantially as de-  
25 scribed.

3. A self-closing seat or chair comprising a flexible seat, a support to which one end of the flexible seat is fixed, a hollow back or casing, a spring-roller within the casing and to  
30 which the flexible seat is connected, a back-frame pivoted to the support and to the hollow back, means for determining the position of the latter when inclined to expose the flexi-

ble seat and a lever-frame also pivoted to the support and connected by sliding joints to the  
35 hollow back and back-frame, substantially as described.

4. A self-closing seat or chair comprising a flexible seat, a support to which one end of the flexible seat is fixed, a hollow back or cas-  
40 ing, a spring-roller within the casing and to which the flexible seat is connected, a back-frame pivoted to the support and to the hollow back, stops on the support and back-frame for determining the position of the back-frame  
45 when inclined to expose the flexible seat and a lever-frame also pivoted to the support and connected by sliding joints to the hollow back and back-frame, substantially as described.

5. A self-closing seat or chair comprising  
50 a flexible seat, a support to which one end of the flexible seat is fixed, a hollow back or casing, a spring-roller within the casing and to which the flexible seat is connected, a back-frame pivoted to the support and to the hol-  
55 low back, legs or an extension on the hollow back for supporting the same when the back-frame is inclined to disclose the flexible seat and a lever-frame also pivoted to the support and connected by sliding joints to the hollow  
60 back and back-frame, substantially as described.

THOMAS SPENCER JAMES.

Witnesses:

JOHN E. BOUSFIELD,  
C. G. REDFERN.