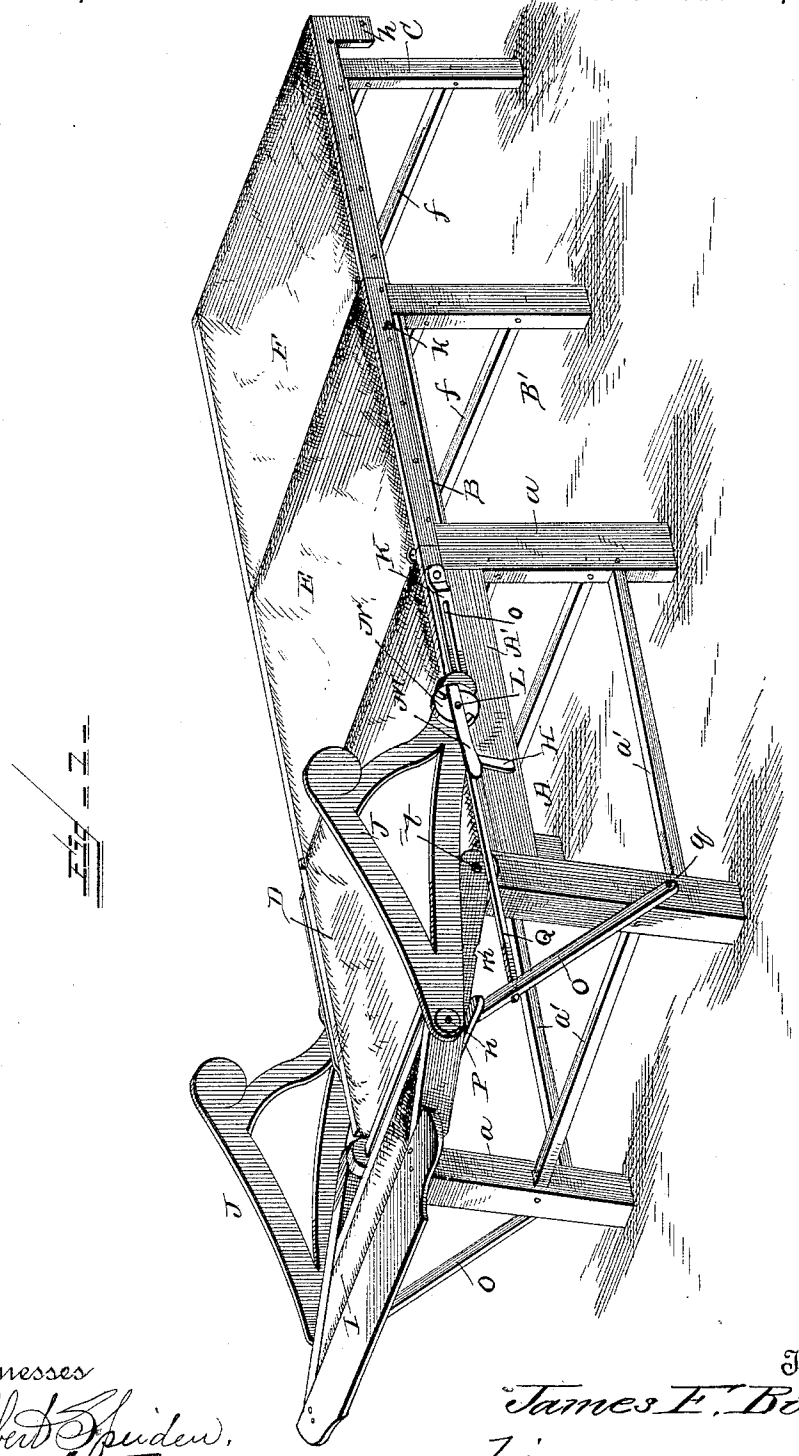
(No Model.) 2 Sheets—Sheet 1.

# J. F. BITTLE.

## FOLDING CHAIR.

No. 398,693. Patented Feb. 26, 1889.



Witnesses
Albert Spieden,
E. H. Bond,

Inventor,
James F. Bittle,
By his Attorney
Chas. A. Fowler

N. PETERS. Photo-Lithographer, Washington, D. C.

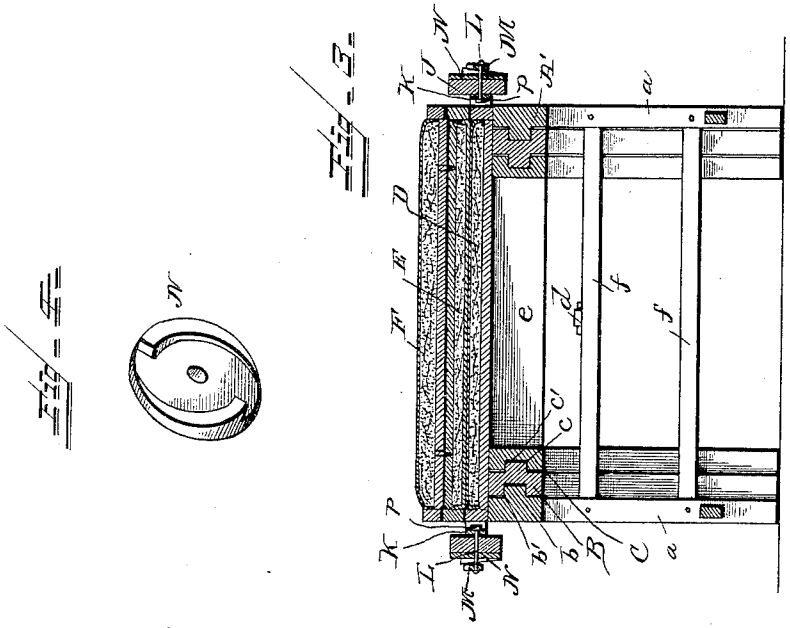
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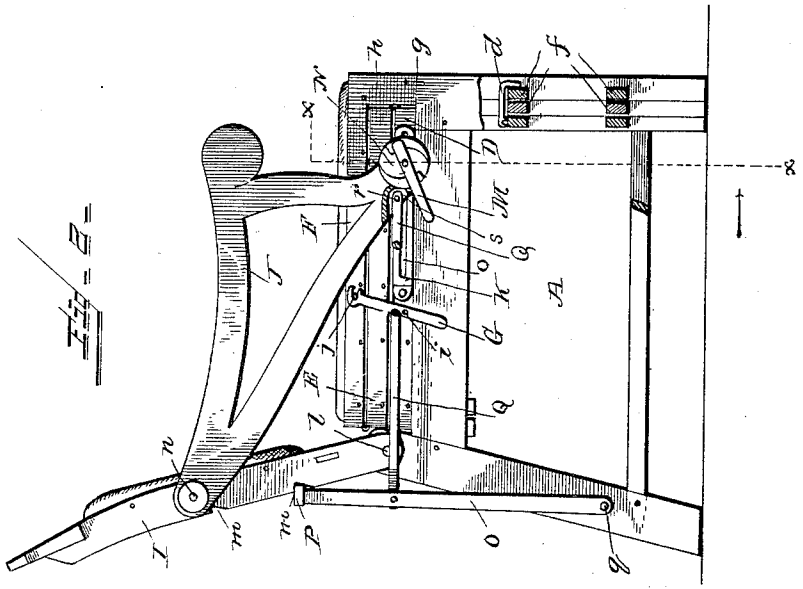
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# UNITED STATES PATENT OFFICE.

JAMES F. BITTLE, OF LITTLESTOWN, PENNSYLVANIA.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 398,693, dated February 26, 1889.

Application filed October 23, 1888. Serial No. 288,903. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. BITTLE, a citizen of the United States, residing at Littlestown, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Folding Chairs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in folding chairs of that class designed to be converted into a reclining chair or couch; and it has for its object to construct a chair of this kind which shall be strong and durable, easily converted from one kind of chair to the other, and which will be comfortable to the occupant in either position.

The novelty in the present instance resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a device embodying my improvements extended to form a couch. Fig. 2 is a side elevation, partly in section, of the same closed, forming an arm-chair. Fig. 3 is a vertical section through the line $x\,x$ of Fig. 2, and Fig. 4 is a perspective view of one of the locking-cams detached.

Referring now to the details of the drawings by letter, A designates the frame of the chair, composed of the legs $a$, cross-bars A′, and braces $a'$, connected together in any well-known manner. The inner faces of the cross-bars of this frame are provided with the tongues or ribs $b$, which work in the channels $b'$ on the inner faces of the longitudinal bars B of the extension B′, the inner faces of which are in turn provided with similar ribs, $c$, which in turn work in the channels $c'$ of the extension C, both of said extensions being provided with suitable legs, as shown, and forming the support for the upholstered part of the device when extended, as shown in Fig. 1. When closed, the parts slide one within the other, as shown in Fig. 3, and are locked in this position by means of a suitable catch, $d$, pivoted to the front brace of the frame A and extended over the front cross-braces of the two extensions, as shown in Fig. 2. The rear ends of the longitudinal bars of the extensions are connected by suitable cross-bars, as $e$, Fig. 3, and the legs of said extensions are connected by suitable bars or rungs, $f$.

On top of the frame A is secured an upholstered seat, D, the front end of which sets back a little from the front edge of the legs of the frame, as shown in Fig. 2, leaving a space, $g$, at the front thereof for two purposes—first, so that when the second portion of the seat is extended it may find a firm support at its inner end on the tops of the front legs, as shown in Fig. 1, and, second, so that when the device is closed, as shown in Fig. 2, the downward extension $h$ of the third section of the seat may find a support on said legs, and also cover the joint between the several sections, as shown in Fig. 2.

As above stated, the seat D is secured to the top of the frame A, and to the front edge of this seat is hinged what I term the "second" section, E, of the seat, and to this in turn is hinged the third section, F, which is provided at its front end with the downward extension $h$. These sections are so hinged that they may be readily extended into the position shown in Fig. 1, or folded into the position shown in Fig. 2.

In order to lock the parts in the position shown in Fig. 2, I pivot to the frame or to the side of the seat a lever, G, as at $i$, the hooked end of which is adapted to engage a pin, $j$, on the side of the top section, F, of the seat, and thus hold the parts in the position shown in Fig. 2, and on the other side of the device I pivot a similar lever, H, the hooked end of which is adapted to engage a pin, $k$, on the second section of the seat, thus keeping all the parts from moving on each other.

I is the back of the chair, which may be upholstered in any suitable fashion. This back is pivoted at $l$ to the upper ends of the rear

legs of the frame, and at its rear face is provided with the notches *m*, for a purpose hereinafter described.

J are the arms, pivoted at *n* to the side bars of the back and shaped to suit the taste of the maker.

Secured to the sides of the frame are the brackets K, provided with the longitudinal slots *o*, in which work the heads *p* of the bolts L, which bolts pass through the outer ends of the arms of the chair and have secured to their outer ends the levers M, the said bolts also serving to secure to the outer faces of said arms the double eccentrics or cams N. (Shown enlarged in Fig. 4.) In use the levers are turned to loosen the engagement between the bolt-heads and the walls of the slots in the brackets and the back of the chair adjusted to the desired position, when by turning the levers the heads are caused to bind against the rear surface of the brackets and hold the back in the desired position.

Pivotally secured to the rear legs of the frame, as at *q*, are the lower ends of the uprights O, the upper ends of which are connected by the cross-bar P, designed to engage the notches *m* in the back frame to hold the said back and form a brace therefor. Pivotally connected to these uprights between their ends are the horizontal bars Q, the other ends of which are pivotally secured, as at *r*, in recesses *s* in the front ends of the arms of the chair, as shown. This forms a strong brace for the back, and by means of the connections shown the said braces must necessarily move back and forth with the arms, so as to always be in position to engage the notches *m* in either of the two positions shown. This is important.

What I claim as new is—

1. The combination, with the pivoted back and the frame, of the arms pivoted at their rear ends to said back and at their front ends slidingly engaging the frame of the chair, and the brace pivoted at its lower end to the leg and pivotally connected between its ends to the arms and engaging said back to support the same, substantially as described.

2. The combination, with the frame and the back pivoted thereto, of the arms pivoted at their rear ends to said back and at their front ends slidingly engaging said frame, the uprights pivoted to the legs of the frame and connected at their upper ends by a cross-bar engaging said back, and the horizontal bars pivotally connected with said uprights and pivotally connected with and moving with said arms, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES F. BITTLE.

Witnesses:
CHAS. H. RIFFEL,
OSCAR H. HARNER.