(No Model.)

# C. H. ORCUTT.

## FOLDING CHAIR.

No. 442,591. Patented Dec. 9, 1890.

Fig. 2.

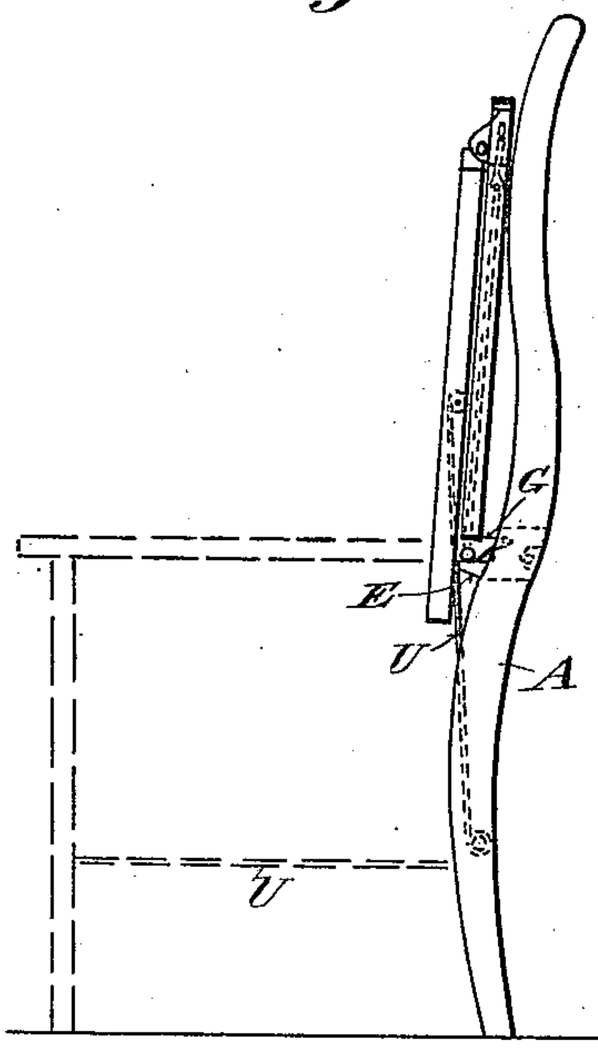
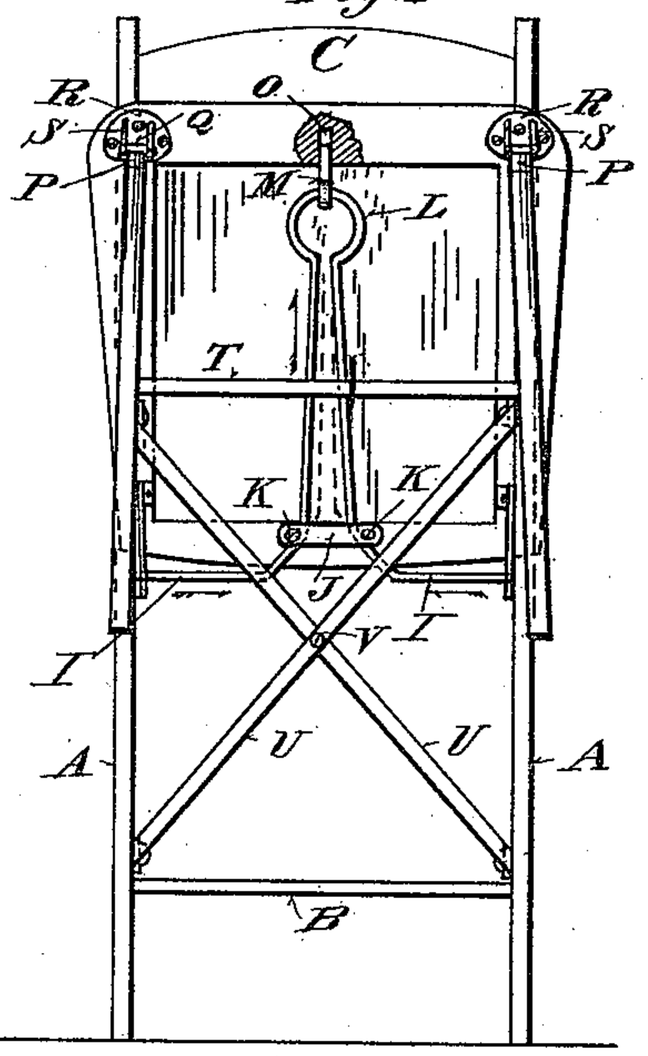



Fig. 1



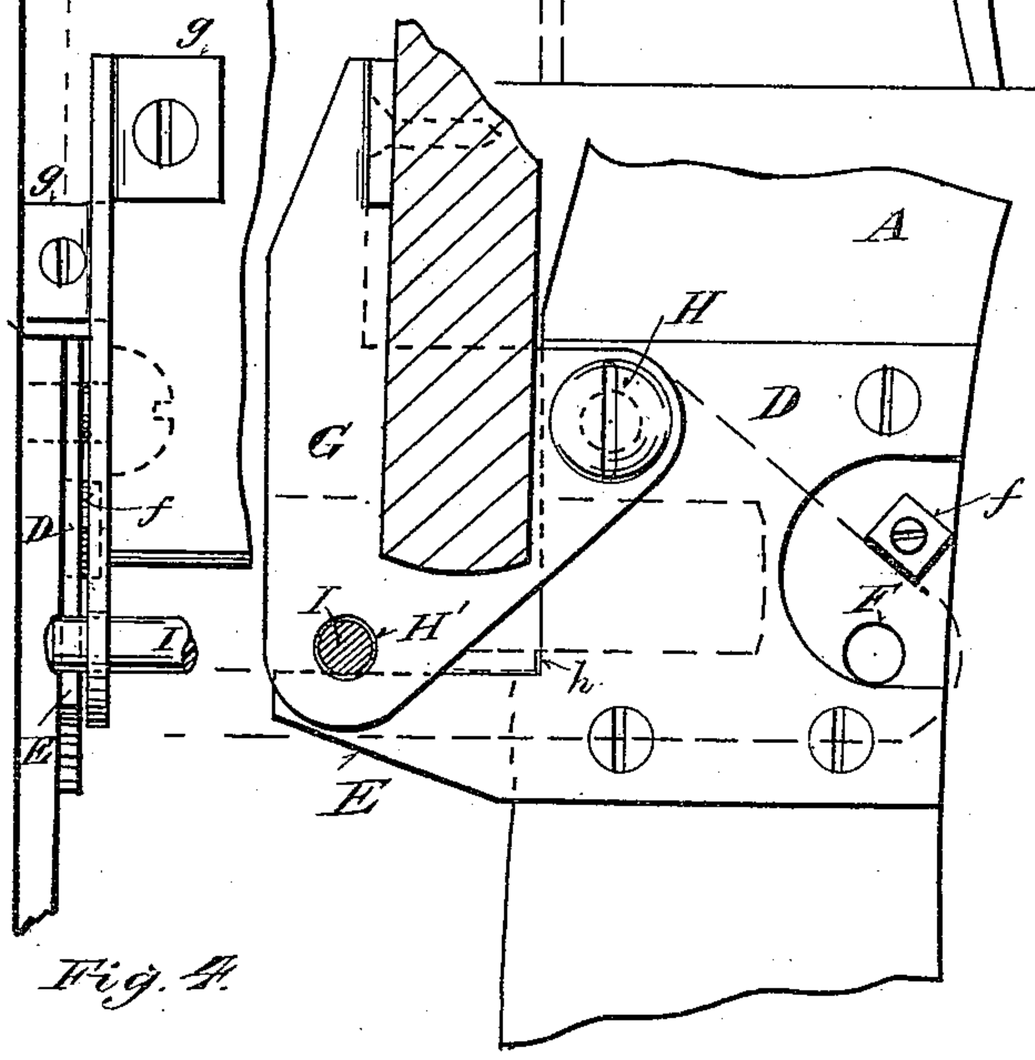




Fig. 4.

Fig. 3.

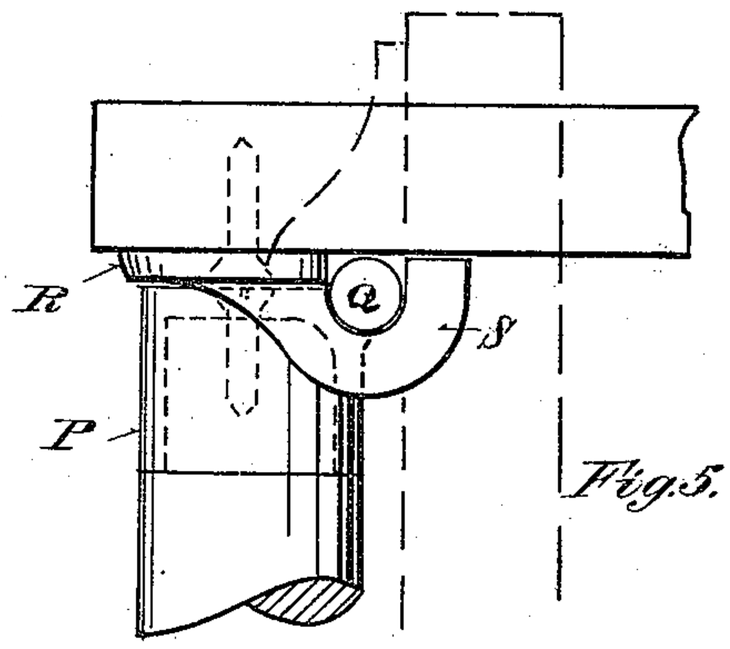



Fig. 5.

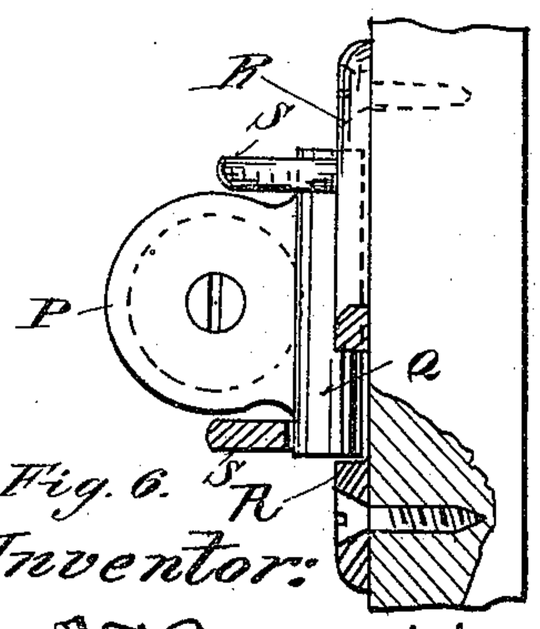



Fig. 6.

WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES H. ORCUTT, OF SPRINGFIELD, OHIO, ASSIGNOR OF ONE-HALF TO THE CLARK CHEMICAL WORKS, OF SAME PLACE.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 442,591, dated December 9, 1890.

Application filed April 16, 1890. Serial No. 348,185. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. ORCUTT, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Folding Chairs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in folding chairs.

My improvements have reference to means for pivoting the front legs to the chair-bottom so as to avoid weakening the legs, and is specially adapted to be used with the ordinary round legs; have reference to side plates on the rear legs and chair-bottom, respectively, and have reference to a locking device in connection with said plates for locking the chair in both its folded and its seating position.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a front elevation in a folded position of a chair with my improvements thereon; Fig. 2, an edge view of the same and the seating position indicated by broken lines; Fig. 3, an inside view of one pair of plates locked in the folded position and a portion of the chair-bottom and locking device in section; Fig. 4, an edge view of said plates and the manner of engagement by the locking device; Fig. 5, a side view of the pivotal connection between the front legs and the chair-bottom, with the position of the same when in a folded position indicated by broken lines; Fig. 6, a plan view of the front leg and an edge view of a portion of the chair-bottom with the yoke-plate attached thereto and portions broken away to show the connection with the front leg.

The letters A represent the rear legs and back of a folding chair of the usual or any approved type and braced by the cross-piece B and back C. To each of these rear legs is screwed or otherwise secured a side plate D, preferably of sheet metal, and having a projection E in the front for the support of the chair-bottom and to act as a rest for the locking device, as hereinafter described. The rear portion of this plate is preferably cut away and a socket F formed in the rear leg. If preferred, this socket may pass through the plate itself or may be entirely separate therefrom. Other plates G are firmly secured, by screws or otherwise, to the rear portion of the chair-bottom, and each is pivoted to its corresponding leg by a bolt or screw H, passing through the upper portion of the same, and also through said plate D on the rear leg. If preferred, however, this pivotal connection may be separate from the plate D. The rear portion of each plate D has an opening H′, through which passes a locking device in the form of a bolt I or other convenient shape, adapted to engage with said projection E when the chair is in its folded position and engage the said socket F when the chair is in its sitting position, as indicated by the broken lines in Fig. 3. If preferred, this opening may simply be a notch in the rear portion of said plate G, as it serves as a guide and support for the locking device, which will be presently described. These side plates thus firmly secured to the chair-bottom and rear legs, respectively, oscillate past each other and form no locking engagement except by means of a separate device to be used with said plates, which will now be described. This locking device preferably consists of a bent rod of any suitable spring material and bent in substantially lateral inclined and parallel positions, so that the ends of the rods may pass through the openings H′ in the said plates and engage the projections E of the plates D. Guides for said inclined portions, preferably formed of a plate J, secured to the rear of the chair-bottom by pins K or otherwise, cause these lateral portions to approach each other and become disengaged from said side plates when the middle end L of the rod is drawn in the direction of the arrow, as shown in Fig. 1. This middle L is preferably formed of a rounded shape and has a stop M engaged therewith, formed by an eye-bolt sliding in a socket O in the front portion of the chair-bottom. This limits the outward movement of the engaging ends so that they will be

drawn out of engagement with the projections E on the plates G, and yet remain within the openings H′. In opening and folding the chair the ends of the locking-wire press against the leg-plates. Any other form of stop may be used, as I do not wish to limit myself to this particular construction of locking device as long as the principle of a catch engaging with the bearing-plates fixed to the chair-bottom and rear legs, respectively, is carried out so as to lock the chair in its folded and sitting position.

I will now refer to the means of pivoting the front legs to the chair-bottom. This consists of a socket-cap portion P, screwed or otherwise fixed to the upper end of each front leg, preferably let in flush with the surface thereof, as shown in Fig. 5. The end of the leg is thereby held as firmly as if it were held in its permanent socket in the chair-bottom in the usual way. It is thus prevented from splitting and preserves its full strength. The cross-piece or pivot-pin Q is preferably formed integrally with said socket-cap at the rear side thereof, and is engaged at the ends by a double yoke, preferably consisting of a plate portion R and yoke portions S, that prevent the disengagement of said pivot-pin after the yokes are fixed by screws or otherwise to the chair-bottom in their described position. The chair-bottom may therefore assume the position shown in Fig. 5 in dotted lines, while the front legs may preserve their vertical position and lie close against the said bottom, as shown in Figs. 1 and 2. These front legs are braced by a cross-piece T and by horizontal cross-braces U, which preferably consist of strips of metal secured at their intersection by a screw or rivet V, and pivotally attached at their turned-up ends, by screws or otherwise, to the rear and front legs, respectively, so as to lie practically in the same vertical plane with the front legs when the chair is in its folded position, and brace said legs at right angles when in its sitting position, as shown in Fig. 2. These side plates, forming the pivotal connection between the bottom and the rear legs, are preferably of sheet metal, as they can be stamped out and turned up to form lugs *g*, by which they are preferably secured to the chair.

I am aware that it is not new to pivot the chair-bottom to the rear legs by fixed connections; but I believe myself to be the first to lock said chair in both its folded and its sitting position, and wish to lay claim, broadly, to this feature of my device. By thus locking the chair in its folded position much trouble in manipulating the same is overcome, as it cannot be unfolded by careless handling. A bearing-piece *f* is fixed to each of said rear legs so as to bear against the plate G when the chair is in its sitting position, and thus form another point of support for the chair-bottom besides the bearing of the plate G and D at *h*. This bearing-piece *f* may be formed on the rear portion of the plate D itself; but the idea is to have three stops for the plate G when in its sitting position—namely, the pivot H and the bearing-points at *h* and *f*—besides the engagement of the locking device in its socket F. This arrangement materially adds to the stiffening of the chair.

While I have shown and described in this application a construction involving the principle of a sliding member of the locking device carried by one part or branch of the chair and a fixed member or part carried by the other branch or part of the chair, I do not wish to be understood as laying claim, broadly, in this application to such an organization, as the same forms the subject-matter, in a broader sense, of an application filed by me July 5, 1890, Serial No. 357,800.

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

1. In a folding chair, the combination, with the rear legs and the bottom, of plates fixed to said legs and having projections, other plates provided each with an opening and firmly secured to the rear of said bottom and pivotally connected to said leg-plates, and a locking device adapted to extend through said openings and to engage said projections to lock said chair in its folded position.

2. In a folding chair, the combination, with the bottom and the rear legs, of plates fixed to said bottom and legs, respectively, and pivoted together, each bottom plate having an opening, and a spring locking device working through said opening and engaging said leg-plate in both a folded and sitting position of the seat.

3. In a folding chair, the combination, with the bottom and the front legs, of a socket-cap fixed to each of said legs and provided with a cross-piece forming a pivot, a double yoke fixed to said bottom and engaging said pivot, whereby each leg is prevented from splitting and is pivoted to said bottom.

4. In a folding chair, the combination, with the bottom and legs, of pivoted socket-cap and yoke connections between said bottom and front legs, pivoted plates fixed to said bottom and rear legs, respectively, and a locking device engaging said plates to lock them and hold said chair in both its folded and its sitting position.

5. In a folding chair, the herein-described locking device, consisting of a spring-metal rod bent to lateral inclined and substantially parallel portions, guides slidingly engaged by said inclined portions to effect the approach of the lateral portions when actuated by hand, and a stop for said bent rod to limit the adjustment of the same.

6. In a folding chair, the combination, with the rear legs and the bottom, of plates fixed to said legs, other plates provided each with an opening and secured to the rear of said bottom and pivotally connected to said leg-plates, and a locking device adapted to ex-

tend through said opening and engage the rear portion of said leg-plates to lock the chair in a sitting position.

7. In a folding chair, the combination, with the rear legs and plates secured thereto, of the bottom having plates secured to it, a pivotal connection between the plates at either side, and a locking device adapted to lock said bottom to the legs alternately in a sitting and folded position.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. ORCUTT.

Witnesses:
H. U. PEARCE,
H. M. PLAISTED.