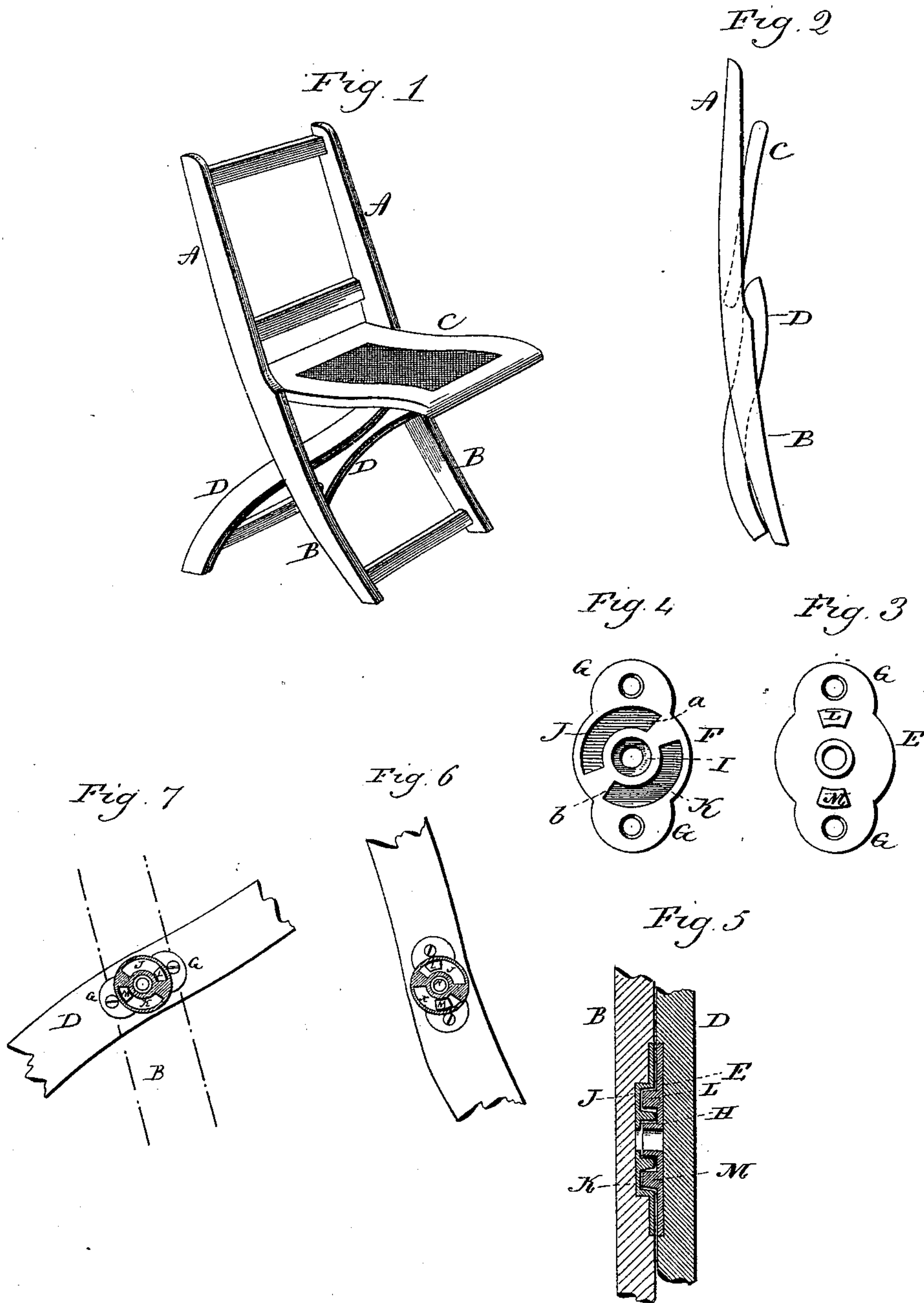


(No Model.)

A. F. OLD.
JOINT FOR FOLDING CHAIRS.

No. 403,772.

Patented May 21 1889.



Witnesses.
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AUSBORN F. OLD, OF BROOKLYN, ASSIGNOR TO THE ANDREWS MANUFACTURING COMPANY, OF NEW YORK, N. Y.

JOINT FOR FOLDING CHAIRS.

SPECIFICATION forming part of Letters Patent No. 403,772, dated May 21, 1889.

Application filed September 24, 1888. Serial No. 286,199. (No model.)

To all whom it may concern:

Be it known that I, AUSBORN F. OLD, of Brooklyn, in the county of Kings and State of New York, have invented a new Improvement in Joints for Folding Chairs; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the chair as set up; Fig. 2, a side view of the same folded; Fig. 3, a face view of one plate; Fig. 4, a corresponding face view of the other plate; Fig. 5, a vertical section through the two plates as applied to the two legs of the folding chair. Figs. 6 and 7 illustrate the operation of the two plates in the opening and closing movement of the legs.

This invention relates to an improvement in that class of folding chairs and settees in which the supporting-legs are crossed—that is to say, the back-frame extends down and forward under the settee, while the legs from the front of the settee extend downward and rearward and across the other legs, the pivot being at the point where the legs cross.

The invention relates particularly to the construction of the pivot-joint between the legs, the object of the invention being a simple and cheap construction of pivot, which shall at the same time form stops to firmly support the legs when in the set-up position, and avoid the necessity of bolts as pivots; and the invention consists in a pair of plates adapted to be secured to the adjacent faces of the respective legs, one plate constructed with a projecting stud to form the pivot, the other plate constructed with a corresponding recess, within which the said stud of the other plate will work as a pivot, the said pivot-plate also constructed with two projecting studs on the pivot side, and the pivot-seat plate constructed with two recesses concentric with the pivot-seat and corresponding to the said two studs on the pivot-plate, the said recesses terminating at points where said studs will come to a bearing when the chair is set up, as more fully hereinafter described.

A A represent the two back posts, which extend downward and forward, terminating in what may be called the "front legs," B B, and between which the seat C is hung in the usual manner.

D D represent the two rear legs, which extend upward and forward, crossing the back posts or front legs, and so as to support the seat at the front—a common and well-known construction, broadly considered. The legs D D are pivoted to the legs B B at the points of crossing, and so that the chair may be folded, as seen in Fig. 2, in the usual manner of folding in this class of chairs.

The seat, being hinged to the back, simply rests upon the upper end of the rear legs, D, and therefore does not make a firm connection therewith, so as to support the chair in the set-up position. Consequently it is necessary that there shall be some support between the legs, which will firmly hold them in such set-up condition independent of the seat. To this end I construct the two plates E F preferably of circular shape and with an extension or ear, G, at opposite points, provided with screw-holes, and by which the plates may be secured to the respective legs. The plate E is constructed at its center with a projecting pivot, H. (See Figs. 3 and 5.) This pivot is concentrically arranged on the plate. The other plate, F, is constructed with a central concentric recess, I, corresponding to the pivot H of the pivot-plate E, and so that the pivot of one plate may enter the recess of the other, as seen in Fig. 5, and thus form a pivot-bearing between the two plates, and upon which the plates may swing.

In the plate F, and concentric with the pivot-seat I, two recesses, J K, are formed, as seen in Figs. 4 and 5, and on the corresponding face of the pivot-plate E studs L M are formed, corresponding, respectively, to the recesses J K of the plate F, and so that the said studs work in the respective recesses as the plates swing or oscillate one upon the other. The ends of the recesses form, respectively, shoulders *a b*, against which the respective studs may strike, so as to arrest the rotation of the plates, the one upon the other. This completes the construction of the plates. They are applied to the legs, as seen in Fig. 5, in a

position so that the pivot and its seat correspond to the crossing of the legs, and so that when in the folded position, as represented in Fig. 6, the studs L M stand free in their
 5 respective recesses, as indicated in Fig. 6; but in setting up the chair the legs are spread, turning upon their respective pivots and until the studs come to a bearing on the respective shoulders of the recesses, as indicated in
 10 Fig. 7. These shoulders of the one plate and the studs of the other form firm bearings, which arrest the turning of the legs when the chair is fully set up and firmly support the chair in that position.

15 The cross-ties of rundles which connect the legs and the back hold the legs in their proper relative position, so that no bolt is necessary through the legs at the pivot to make a connection at that point. I, however, for convenience, construct the two plates with a
 20 central opening through them, as represented, to permit the introduction of a bolt or screw, should occasion require.

The two plates are made complete in casting, so that no mechanical labor other than
 25 that necessary to produce the casting is required. The joint, therefore, is of the cheapest possible character, as well as effective, and in no way detracts from the appearance of the
 30 chair.

It will be understood that while describing and illustrating this invention as applied to folding chairs it is applicable alike to other
 35 articles of furniture, as tables, chairs, settees, &c., in which the supports cross and fold substantially as do the legs of the chair described.

I am aware that joints for folding chairs have been constructed with stops working in slots concentric with the pivot to support the chair when open, and therefore do not claim,
 40 broadly, such a joint, the essential feature of my invention being the formation of the plates, one having as an integral part of it a pivot, the other with a corresponding recess to form a seat for such pivot, and one of the
 45 plates constructed with slots outside the pivot, but concentric therewith, and the other plate constructed with studs as an integral part of it, corresponding to and so as to work in said slots, as hereinafter particularly specified.
 50

I claim:—

The herein-described pivot for folding chairs, consisting of two plates, E F, having projecting ears therefrom, by which the plates
 55 may be secured, the said plates constructed the one with a central stud to form the pivot and the other with a corresponding central recess to form the seat for the pivot, one plate constructed with studs L M on its face, the
 60 other plate constructed with recesses J K concentric to the pivot, and corresponding to the said two studs L M, the ends of the said recesses forming, respectively, shoulders *a b*, against which the said studs may come to a
 65 bearing, substantially as described.

AUSBORN F. OLD.

Witnesses:

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