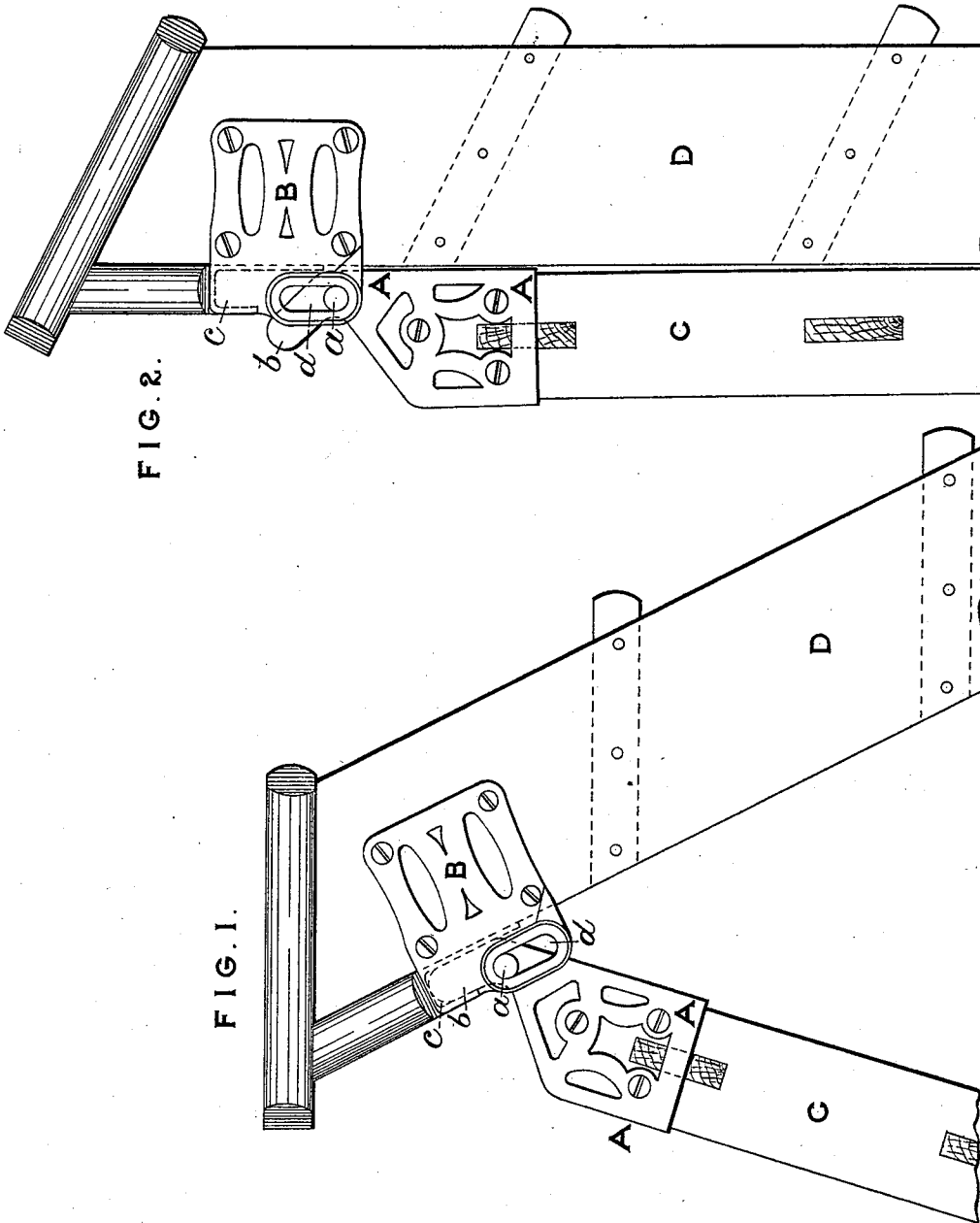


(No Model.)

J. & C. KOEHLER.
HINGE FOR STEP LADDERS, &c.

No. 519,535.

Patented May 8, 1894.



Witnesses.
Parks R. McBride
J. M. Copenhagen

Inventors.
Jacob Koehler
and Conrad Koehler
By Wm. H. Babcock
Attorney

UNITED STATES PATENT OFFICE.

JACOB KOEHLER AND CONRAD KOEHLER, OF MANCHESTER, ENGLAND,
ASSIGNORS TO HUGO EWALD WOLLMER, OF SAME PLACE.

HINGE FOR STEP-LADDERS, &c.

SPECIFICATION forming part of Letters Patent No. 519,535, dated May 8, 1894.

Application filed January 10, 1894. Serial No. 496,350. (No model.) Patented in England December 3, 1892, No. 22,134.

To all whom it may concern:

Be it known that we, JACOB KOEHLER and CONRAD KOEHLER, subjects of the Queen of Great Britain and Ireland, and residents of Frederick Place, Rochdale Road, Manchester, county of Lancaster, England, have invented a Hinge for Step-Ladders or other Similar Folding Objects, (for which we have obtained a British patent, No. 22,134, dated December 3, 1892,) of which the following is a specification.

This invention relates to an improved hinge for step ladders and other folding objects such as trestles, chairs, collapsible tables and the like.

The object of the invention is to provide means which while acting as a hinge to connect the parts together shall also form a lock to secure them in their extended position.

The accompanying drawings show the invention as applied to an ordinary step ladder. Figures 1 and 2 are both side elevations. Figure 1 shows the ladder with the strut extended, while Fig. 2 shows the strut folded against the steps.

The hinge consists of two elements A and B. The part A carries a stud or hinge pin *a* which takes into the slot *d* in the part B. Attached to or formed integral with the part A is a tongue *b*. In the part B is formed a recess or cavity *c* of a shape corresponding to that of the tongue *b* and having an opening in one side near one end, and being extended at the other end within the material of the element B. In its folded state the strut C to which the part A is secured is suspended from the stud *a* which then rests at the bottom of the slot *d*. When the strut C is extended the weight of the ladder D causes the stud *a* to slide along the slot *d* and at the

same time the tongue *b* enters the cavity *c* through the opening aforesaid and then slides into the other end of said cavity beyond the said opening and prevents the further extension of the strut C at the same time locking the ladder in its extended position. To release the strut it is only necessary to raise the ladder when the weight of the strut C causes the tongue *b* to be withdrawn and the stud *a* then falls to the bottom of the slot *d* as before. The extent to which the strut may be extended is determined by the inclination of the tongue *b* to the strut. In the case of step ladders where a wide strut is employed the hinges are placed at each side. In the case of trestles, easels or the like where the hinge consists of a single bar only a single hinge slightly modified in shape need be employed as will be well understood.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the ladder D and strut C with the hinge elements A B respectively attached thereto, the element A being provided with a lateral stud and a terminal tongue extending obliquely to the length of the said strut and the element B being provided with a slot *d* and cavity *c* respectively receiving the said stud and tongue and extending parallel to the said ladder D substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JACOB KOEHLER.
CONRAD KOEHLER.

Witnesses:

JOHN HALL,
JOSEPH BENTON.