

(No Model.)

C. BRAND.
STEP LADDER.

No. 311,949.

Patented Feb. 10, 1885.

Fig. 1

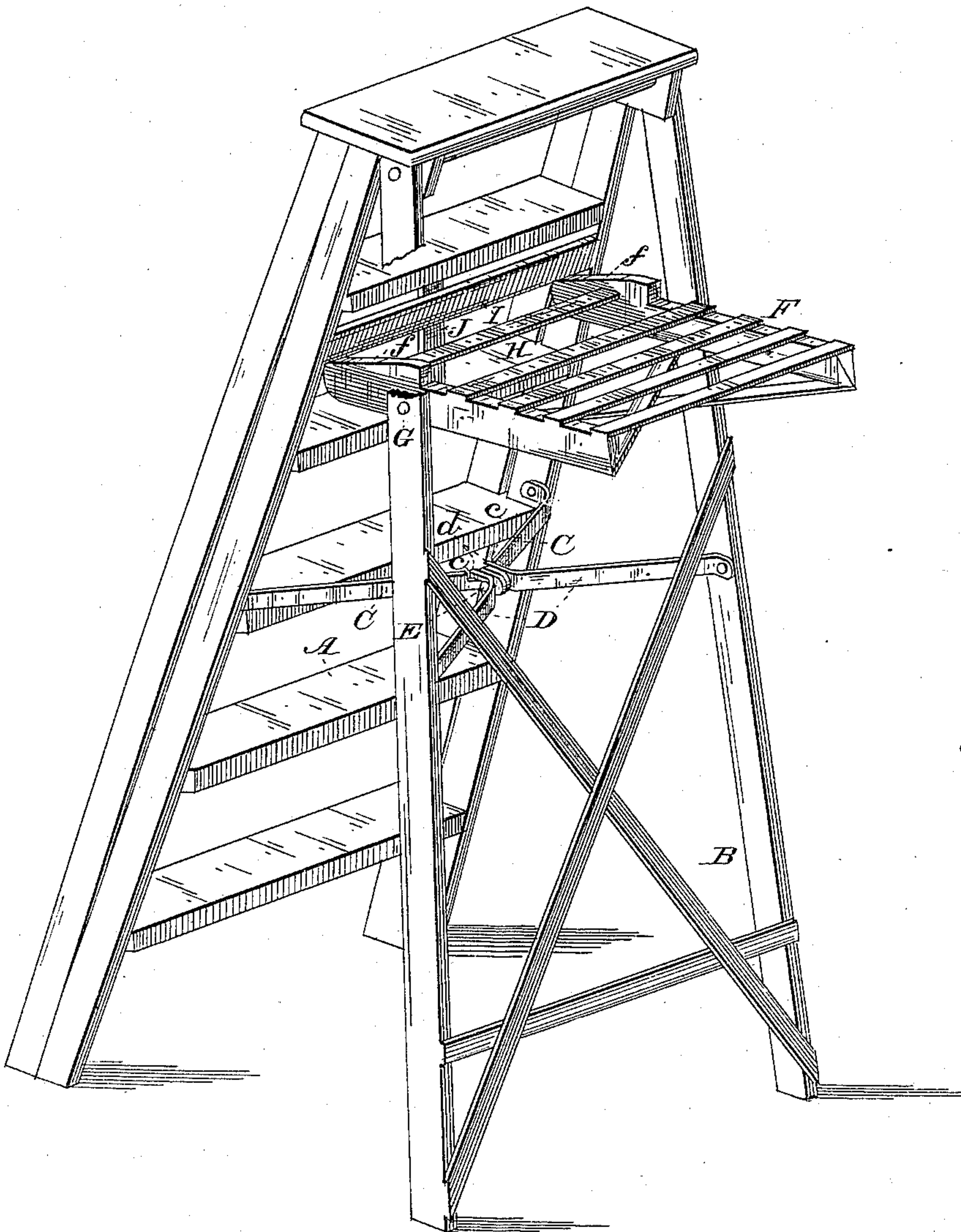


Fig. 2.

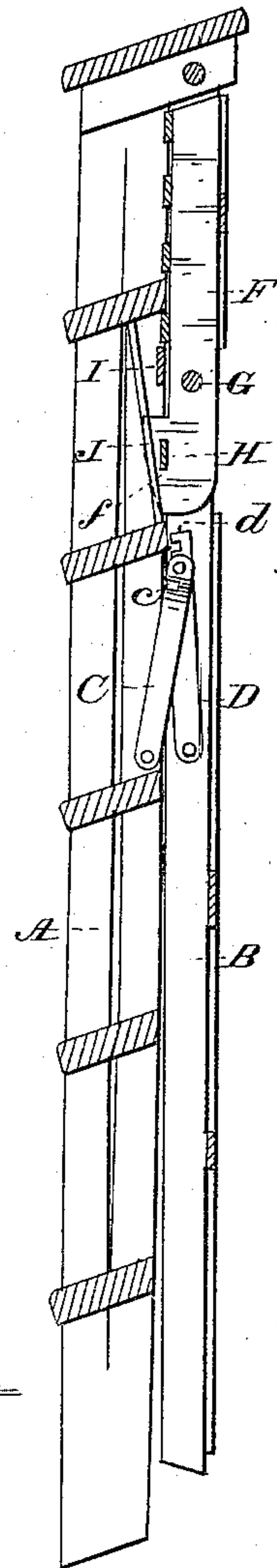
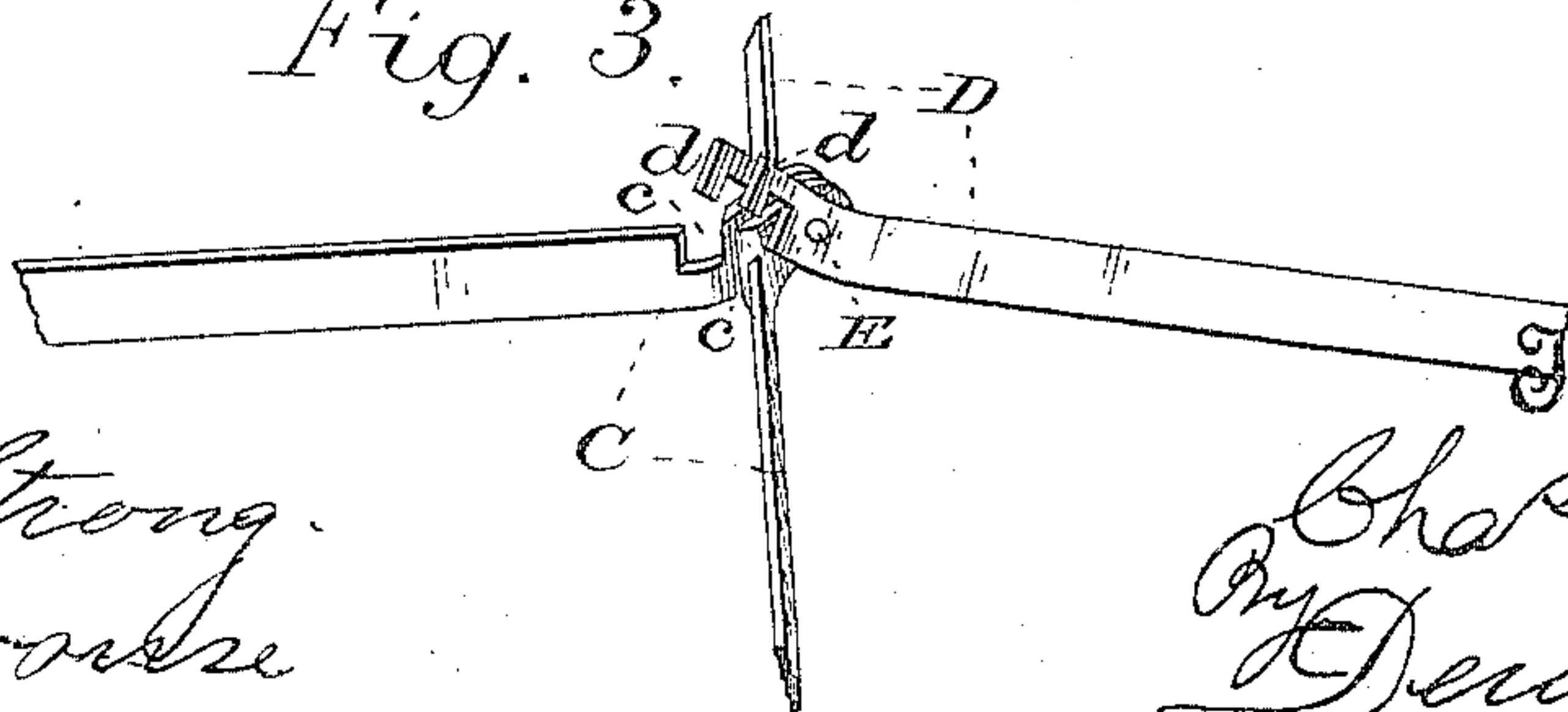


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES BRAND, OF OAKLAND, CALIFORNIA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 311,949, dated February 10, 1885.

Application filed August 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BRAND, of the city of Oakland, in the county of Alameda and State of California, have invented an Improvement in Step-Ladders; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain new and useful improvements in the class of step-ladders; and these improvements consist in the novel brace by which the the folding legs are held open when in use, and in a swinging platform or basket-holder pivoted to the legs of the ladder and adapted to fall to a horizontal position as the legs are spread and folded up as they are closed.

The object of my invention is to provide a step-ladder having a strong and serviceable brace and an automatically-acting platform, to be used as a holder for a basket in picking fruit, or for a paint-can, or for other similar purposes.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my step-ladder. Fig. 2 is a vertical section showing the ladder closed. Fig. 3 is an enlarged view of the braces C and D.

The ladder consists of the usual step portion, A, and the legs B, pivoted above in any suitable manner.

Pivoted to the inner back edges of the step portion A, at about the middle of its length, are two metal strips, C, converging toward the center of the space between the leg and step portion, and having their ends bent parallel to each other and in contact.

Pivoted in a corresponding position to the legs B are two metal strips, D, converging toward the center, and having their ends bent parallel and overlapping the ends of the strips C. These ends are all secured by a pivot-bolt, E. The ends of the strips C are provided with notches *c*, with which hooks or catches *d*, formed on the ends of the strips D, are adapted to engage. When the legs are spread, the pivoted strips assume a horizontal position and the hooks *d* fall into and engage with the notches *c*, whereby a brace is effected, and until this engagement is relieved the legs cannot close. When desired to be closed, the

brace is raised slightly to effect a disengagement of the hooks from the notches. The movement of the legs toward the step portion raises the pivoted brace in such a manner that the strips lie, as shown in Fig. 2, in an upright position, the brace-strips D overlapping strips C. This forms a simple and effective brace for the ladder, and one which will not get out of order and will always be sure in its operation.

F is the platform, forming a basket-holder. This is journaled or pivoted by its sides upon a transverse shaft, G, secured near the upper portion of the legs B. The upper portion beyond the pivot is heavier than the lower portion, so that it is adapted to fall down to a horizontal position, in which the inner ends of the platform extend toward the step portion of the ladder. Upon the inner ends are secured the inclined planes *f*, between which extends a transverse bar, H. Upon the back of the step portion is a transverse strip, I, and between two of the steps is a vertical strip, J. When the legs are moved to a folded position, the inclined planes move under the transverse strip I, whereby the inner ends of the basket-holder are depressed until the transverse bar H comes in contact with the vertical strip J, whereby the inner ends of the holder are carried down as the legs are folded until the basket-holder is raised to an approximately-vertical position and about parallel with the legs, between the sides of which it folds out of the way. As the legs are opened again, the basket-holder being relieved on its lower ends drops down to a horizontal position, in which it is held by reason of its inner ends extending under the transverse strip I on the step portion.

The advantage of having a basket-holder fold upwardly is that being near the top of the ladder, if it should not fall out of its own weight, it is easy for the operator as he ascends to push it out through the upper portion of the ladder, and its automatic action in folding renders it very convenient in getting it out of the way when the ladder is closed.

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

1. In a step-ladder, a brace to hold the fold.

ing legs open when in use, consisting of the strips C, pivoted to the step portion and converging rearwardly, the strips D, pivoted to the legs and converging forwardly, a pivot-connection between the meeting ends of the strips, and means, as described, for effecting an engagement between the ends to hold them in position, substantially as herein described.

2. In a step-ladder, a brace to hold the folding legs open when in use, consisting of the strips C, pivoted to the step portion and converging rearwardly, the strips D, pivoted to the legs and converging forwardly, a pivot-connection between the meeting ends of the strips, and the means by which they engage each other in position, consisting of the notches *c* in strips C and the hooks or catches *d* in strips D, substantially as herein described.

3. In a step-ladder having the step portion A and swinging legs B, the platform or basket-holder F, pivoted on a cross-shaft, G, between the legs, the inclined planes *f* on the inner ends of the platform, and cross-bar H, the cross-strip I on the step portion, under which the inner ends of the platform find support, and against which the inclined planes bear in folding, and the vertical strip J, with which the cross-bar H comes in contact, and by which the platform is folded, substantially as herein described.

In witness whereof I have hereunto set my hand.

CHARLES BRAND.

Witnesses:

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J. H. BLOOD.