

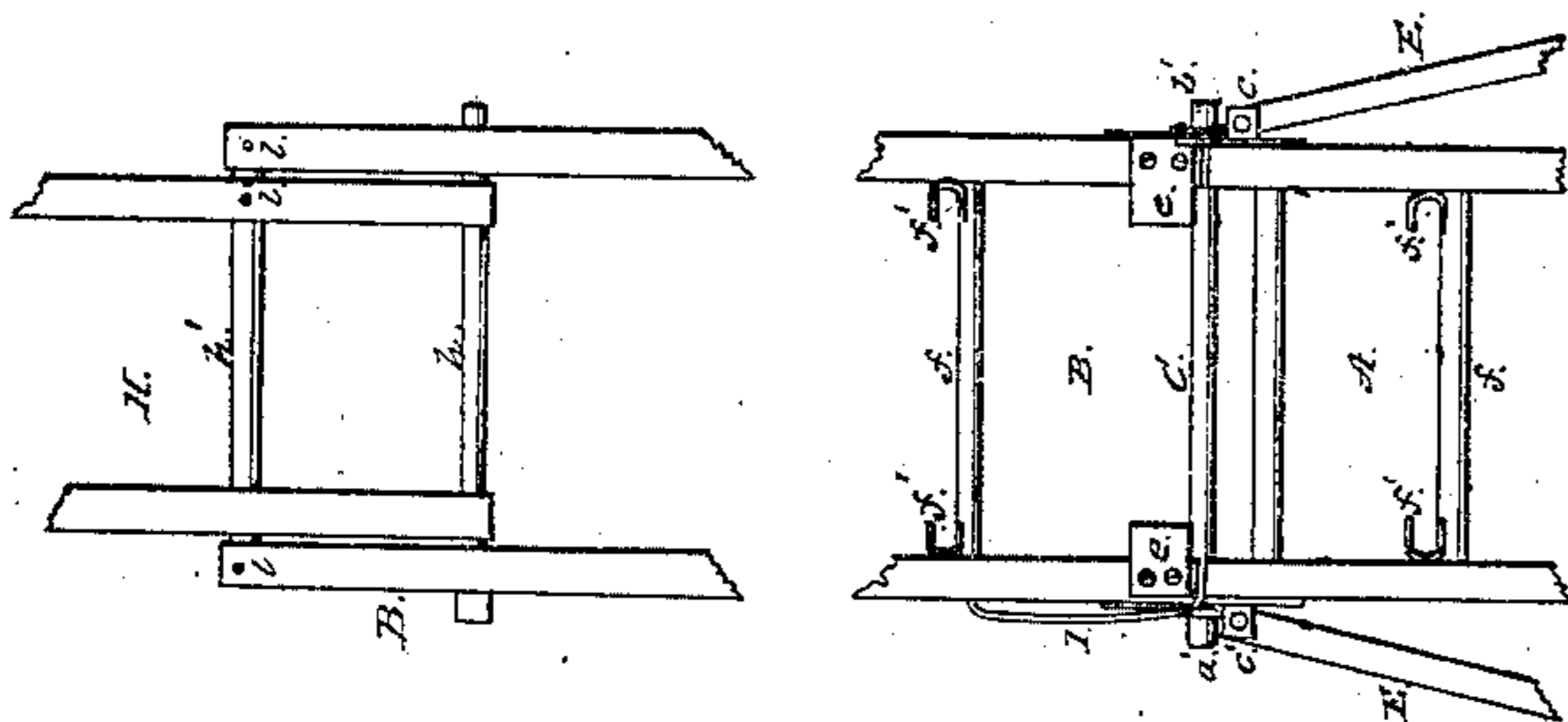
*J. Harman.*

*Ladder.*

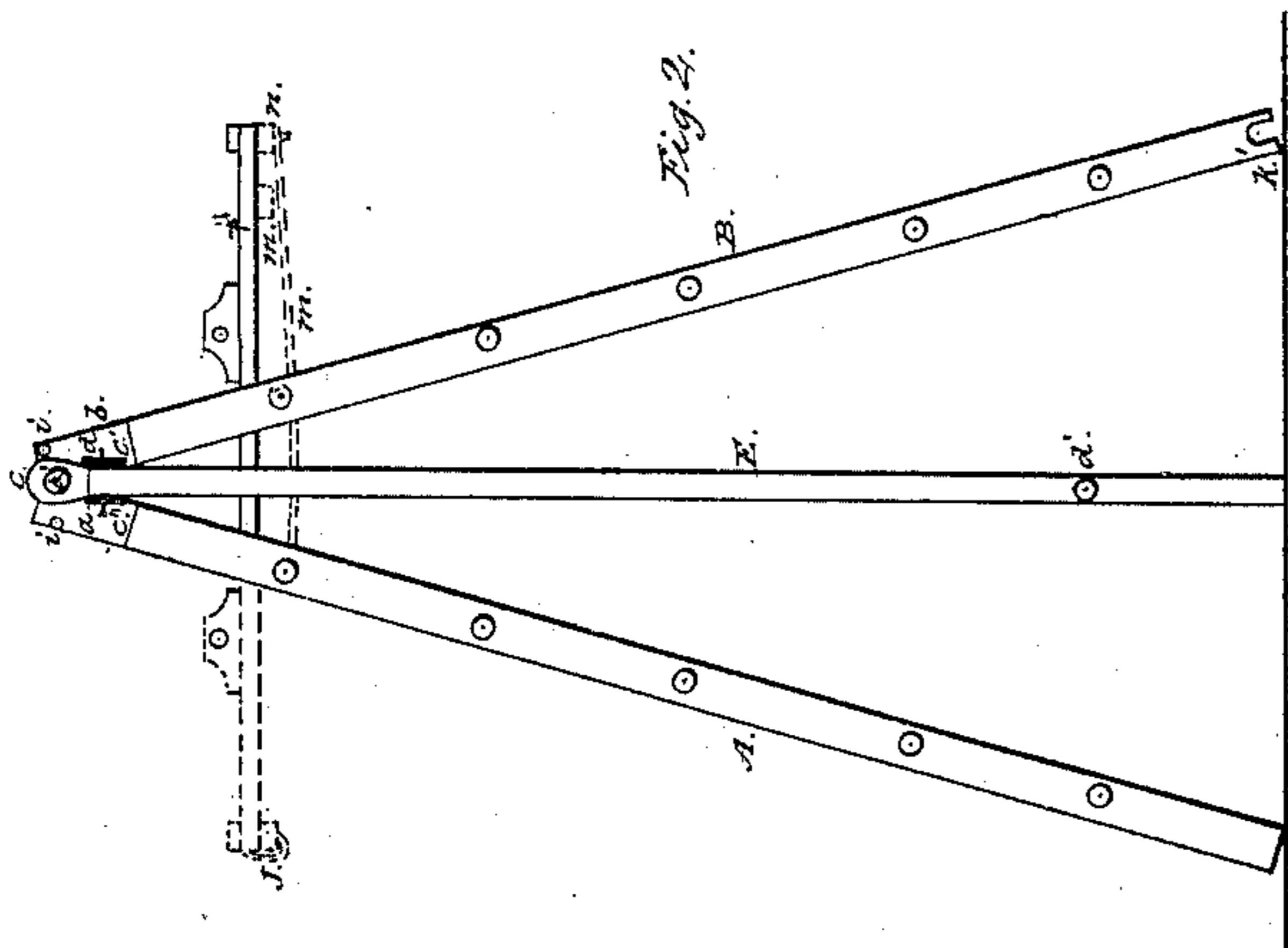
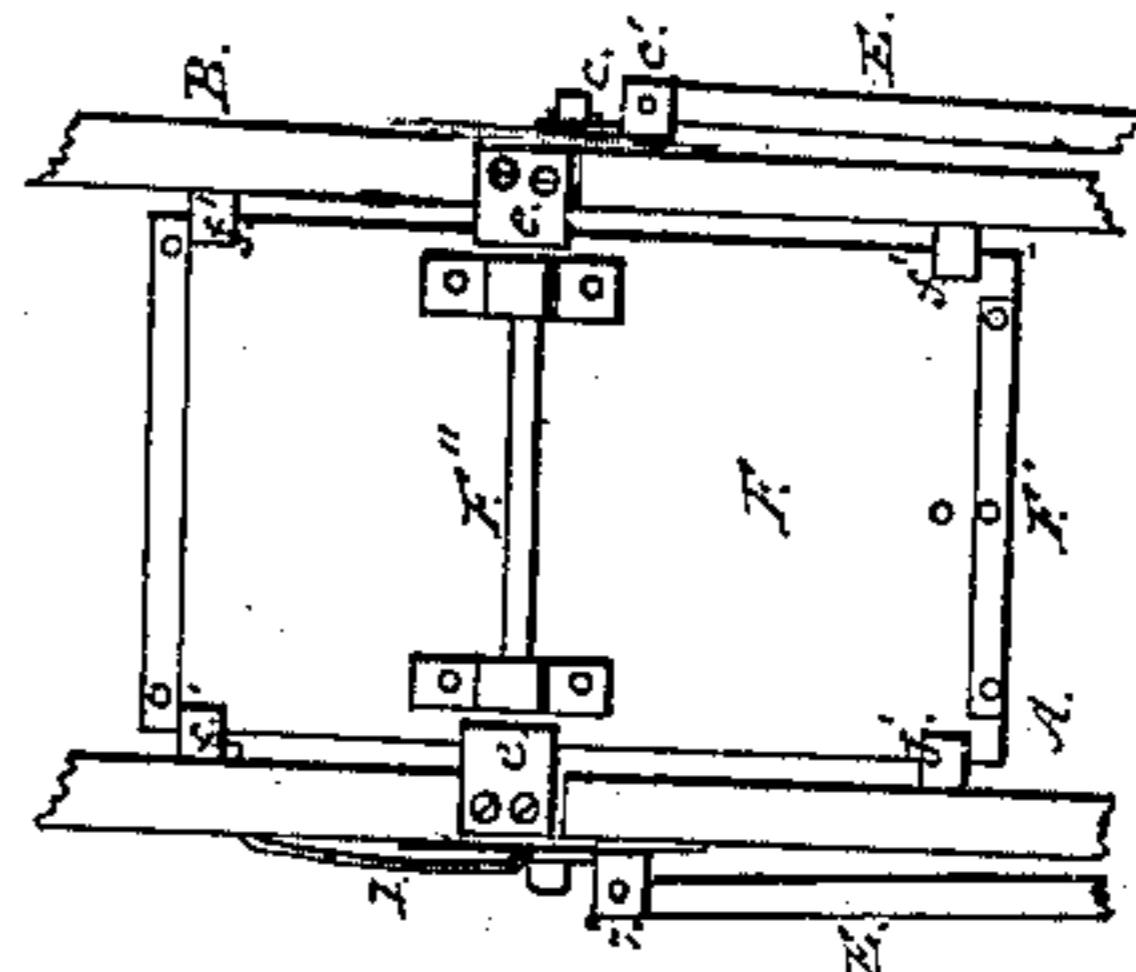
*No 44,799.*

*Fig. 4.*

*Patented Oct. 25, 1864.*

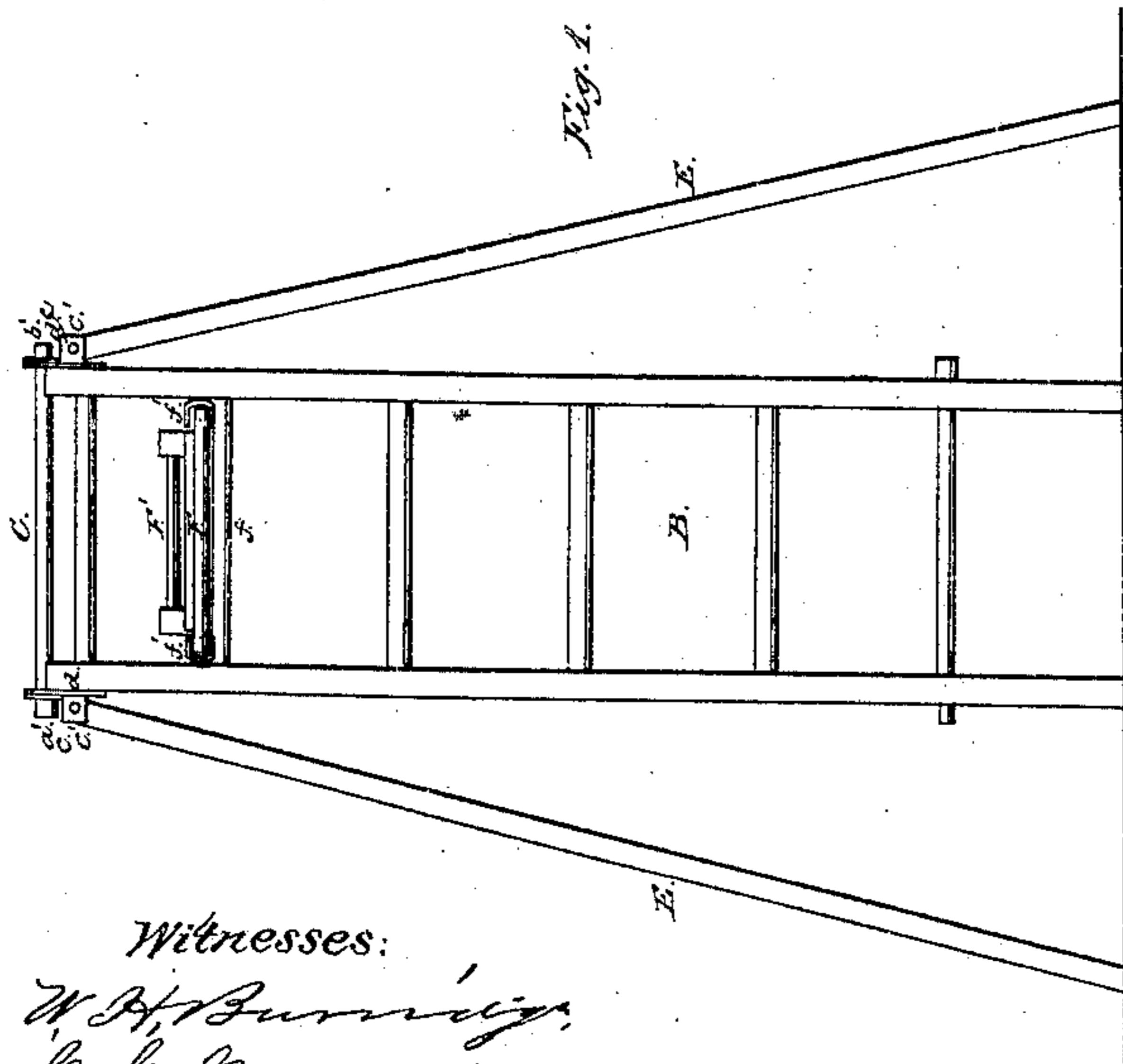


*Fig. 6.*



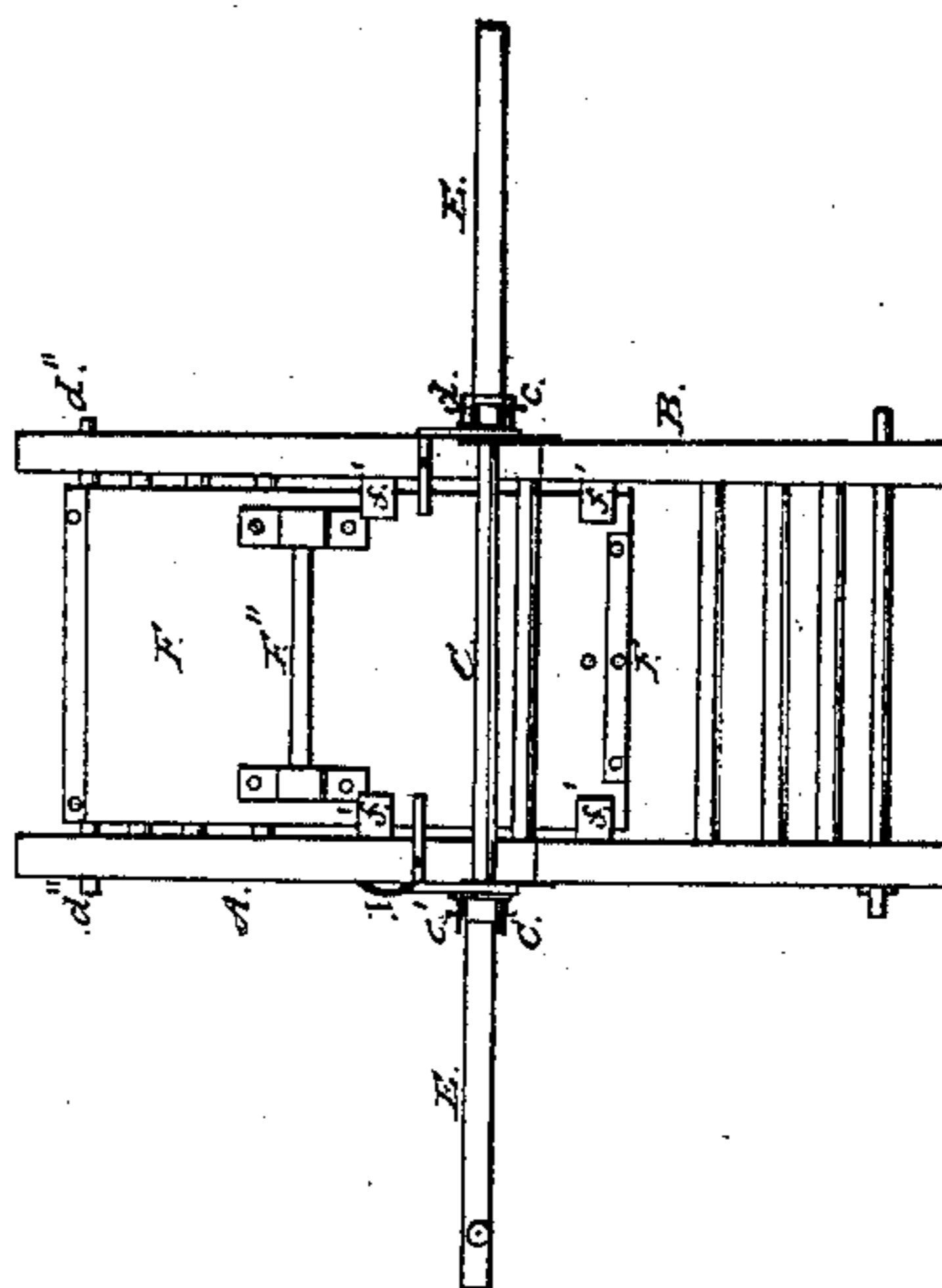
*Fig. 2.*

*Fig. 5.*



*Fig. 1.*

*Fig. 3.*



*Witnesses:*  
*W. H. Burdick,*  
*C. C. Morgan.*

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# UNITED STATES PATENT OFFICE.

JAMES HANNAN, OF SOUTH LYON, MICHIGAN.

## FRUIT-LADDER.

Specification forming part of Letters Patent No. 44,799, dated October 25, 1864.

*To all whom it may concern:*

Be it known that I, JAMES HANNAN, of South Lyon, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Fruit-Ladders; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of the ladder. Fig. 2 is a side view. Fig. 3 is a top view. Figs. 4, 5, and 6 are sections, which will be referred to in the description.

Like letters of reference refer to like parts in the different views.

My improvement relates to the manner of jointing the sections of the ladder together so that it can be extended, and to the means used for locking it in that position; also, to the adjustable table and the manner of placing and retaining it in the desired place on the rounds, and to the combination of two or more ladders by means of coupling-joints, forming an extension-ladder.

The ladder is formed of two sections, A and B, which can be placed at any angle, being jointed together at the top or middle by means of a rod or round, C, extending across the top, through the plates *a* and *b*, secured to the sides of the sections, and through the coupling-joints *c*, that connect the braces E on the sides to the ladder. On one side the end of the rod C is enlarged in the form of a head, as at *a'*, and through the other end is the pin *b'*, forming, in all, a joint that renders the parts adjustable in every desired manner. Through the sides *c'* of the coupling-joints *c* and the ends of the braces is the pin *d*, forming the joint that allows the braces E to be placed at any inclination.

F is the adjustable table, placed on the two upper rounds, *f*, of the sections A and B. To these rounds, close to the sides of the ladder, are secured the catches *f'*, and the table is so formed that from one end it can be slipped under these catches into the desired place, as represented in Figs. 1, 2, 3, and 6, and it can be drawn out more or less to either side, as shown in Figs. 2 and 3, and indicated by the dotted lines in Fig. 2, the catches *f'* holding it firmly in any position. As the rounds *f* are not ridged

in the sides of the ladder, but can be turned round in any way, it follows that the catches *f'* will always be adjusted to the horizontal position of the table at whatever angle the sections A and B may be placed.

Another mode of fastening the table is indicated by the red lines in Fig. 2, which consists of two pieces, *m* and *n*, secured under the table at one end such a distance apart that a slot is formed for the round of the ladder, and there is a rod or brace, *m'*, extending lengthwise underneath the table, being secured to the cross-piece *n* at one end and hooked into a catch, secured to a similar piece, at the other end, securing the ladder in place; or there may be a small hook, J, attached to each end of the table to hold the brace *m'* in place.

The part B of the ladder can be raised up, extending the height of the ladder, being secured in that position by placing the hook I in the holes *i*, Fig. 2, of the plates *a* and *b*, thereby locking the sections of the ladder in that position. To render the ladder still more firm at this point when it is extended, the table F can be slipped down under the catches *f* and plates *e*, as represented in Fig. 6. The piece F and the round F' secured in the center of the table answer to step on, as the table is outside of the rounds of the ladder.

This ladder can be extended still more by connecting another ladder, H, to the upper end of the section B by a coupling joint. (Represented in Fig. 4.) The sides of the ladder H come inside of the sides of the ladder B, and the lower ends are slotted, as shown at *k*, in Fig. 5, so as to fit on to the rung *h*. The upper ends of the sides of the section B are slotted in a similar manner, as seen at *k'* in Fig. 2, and the round *h'*, that passes through slots *g*, Fig. 5, in the sides of the ladder H, is placed in these slots and secured by pins *l*. A pin or bolt, *l'*, also is placed in one side of the ladder H, through the rung *h'*, as represented. In this way an extension-ladder of any desired height can be formed very readily.

The braces E, when not in use, can be folded down close to the sides of the ladder, and through holes *d'*, Fig. 2, can be put the projecting ends *d''*, Fig. 3, of one of the rounds of the ladder.

The entire ladder can be folded up for transportation by placing the sections A and B to-

gether and the braces E down on the sides, as described, and placing the table through the catches of the round *f* on one side, and putting the extension-ladder H on the other side, as represented in Fig. 5.

When the ladder is arranged as in Figs. 1, 2, and 3, it forms a double ladder, well adapted to gathering fruit, and it can be made into a short single ladder for using in the barn, and like purposes, by placing the sections together as in Fig. 5, and detaching the ladder H; or the sections A and B can be detached from each other, forming two short single ladders. It can also be extended into a single ladder of any desired height, as described, and represented in Figs. 5 and 6. Thus it can most readily be converted into a single, double, or

extended ladder, adapted to every purpose for which a ladder of any kind can be used.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The adjustable rounds *f f*, with the catches *f' f'*, or their equivalents, in combination with the adjustable table F, for the purpose set forth.

2. Coupling or combining the sections B and H, Fig. 4, (either two or more sections,) forming a combined, adjustable, and extension-ladder, in the manner and for the purpose set forth.

JAMES HANNAN.

Witnesses:

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