No. 671,004. Patented Apr. 2, 1901.

W. P. SHAW & S. S. BROWNLEE.

EXTENSION STEP LADDER AND TABLE.

(No Model.) (Application filed Oct. 5, 1898. Renewed Sept. 6, 1900.)

2 Sheets—Sheet 1.

Fig. 6.

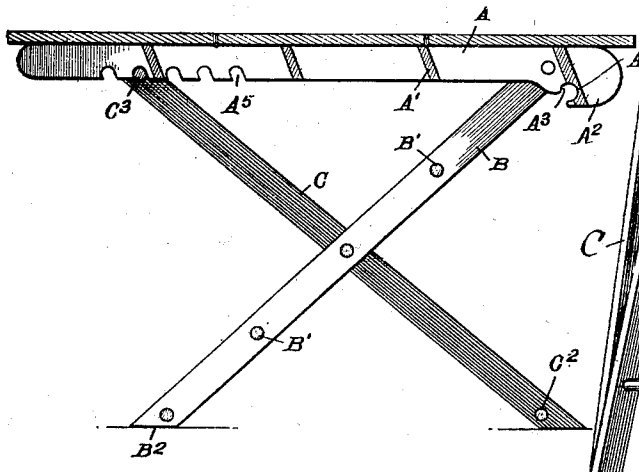


Fig. 1.

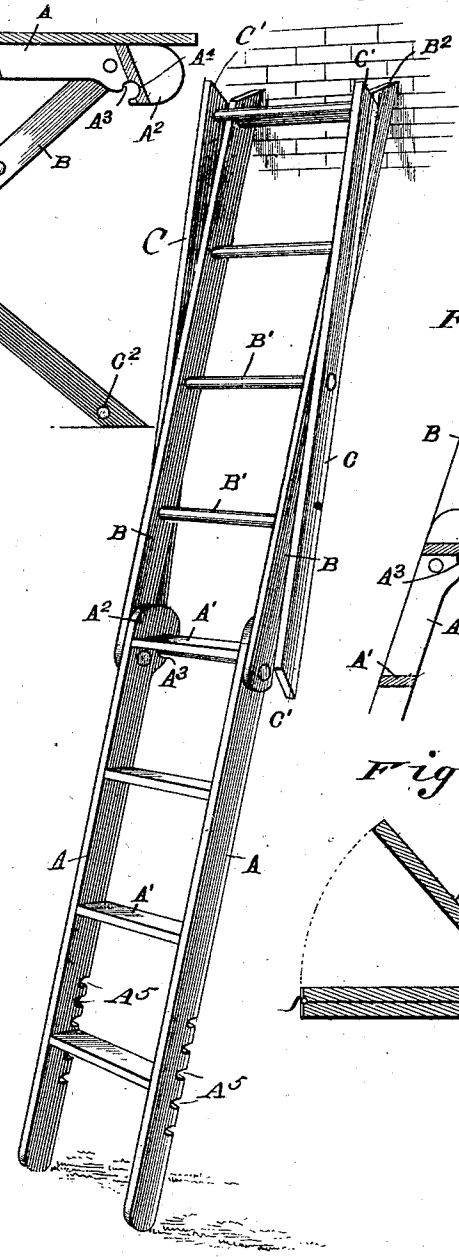


Fig. 8.

Fig. 4.

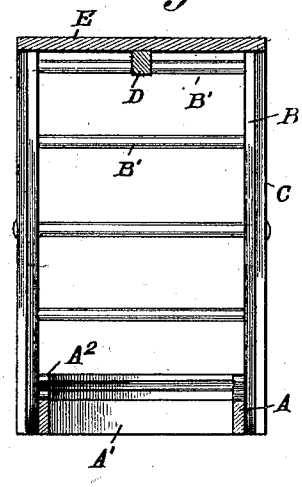


Fig. 7.

Witnesses
Geo. Riley,
Chas. B. Brock

Inventors
Wm. P. Shaw,
Sanford S. Brownlee,
by Munn & Co
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 671,004. Patented Apr. 2, 1901.

W. P. SHAW & S. S. BROWNLEE.

EXTENSION STEP LADDER AND TABLE.

(Application filed Oct. 5, 1898. Renewed Sept. 6, 1900.

(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

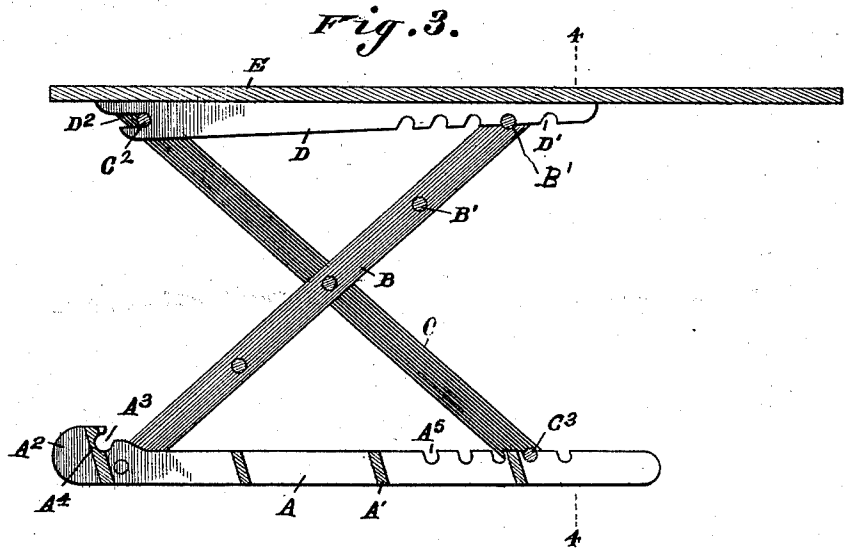


Fig. 5.

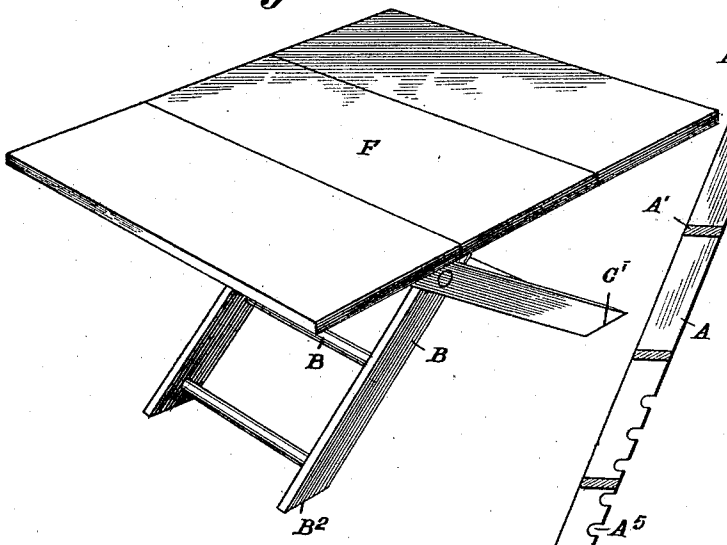
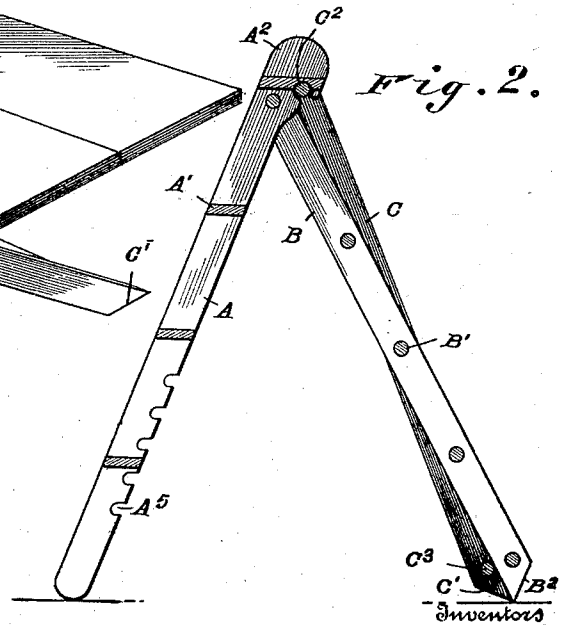


Fig. 2.



Witnesses
F. W. Dieby,
Chas. E. Brock

Inventors
Wm. P. Shaw,
Sanford S. Brownlee,
by O'Meara & Co.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM PERRY SHAW AND SANFORD S. BROWNLEE, OF COLUMBUS, OHIO; SAID SHAW ASSIGNOR TO SAID BROWNLEE.

EXTENSION STEP-LADDER AND TABLE.

SPECIFICATION forming part of Letters Patent No. 671,004, dated April 2, 1901.

Application filed October 5, 1898. Renewed September 6, 1900. Serial No. 29,197. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM PERRY SHAW and SANFORD S. BROWNLEE, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a new and useful Extension Step-Ladder and Table, of which the following is a specification.

This invention is a household article embodying four combination interchangeable features—namely, a long or extension ladder, a step-ladder, a table or bench, and an ironing table or board.

One object of the invention is to provide a device embodying these features which shall be cheap and simple in construction and easy to manipulate, so that a servant or any one about the house can readily change the device from one form to another, as required.

Another object is to provide for strength, rigidity, and a multiplicity of adjustments without making a clumsy or unwieldy structure.

With these objects in view our invention consists in the peculiar construction of the various parts and in certain novelties of combination, all of which will be fully described hereinafter and particularly pointed out in the appended claims.

In the drawings forming part of this specification, Figure 1 shows the device as extended and used as a wall-ladder. Fig. 2 is a view in section, showing the device folded as a step-ladder. Fig. 3 illustrates in section the parts arranged to provide an ironing table or board. Fig. 4 is a section on the line 4 4 of Fig. 1. Fig. 5 shows the device arranged as a table. Fig. 6 is a sectional view of said table. Fig. 7 is a sectional view of the table-top, showing the manner of folding the same; and Fig. 8 is a detail view of the joint used in the extension-ladder.

In constructing a combination-ladder in accordance with our invention we employ two main side rails or pieces A, which are connected by strips A′, and their upper ends are enlarged upon the rear edges, as shown at A^2, and in the rear side of said enlargement are produced the curved notches or recesses A^3 just below the top step, and the under side of this step is grooved, as shown at A^4, to form a continuous socket or recess from side to side of the ladder for a purpose hereinafter explained.

The secondary side rails or pieces B are pivoted to the main rails upon their outer faces and near their upper ends, said secondary side rails being connected by means of rounds B′ and having their distal ends beveled, as shown at B^2. Supporting-legs C are pivoted centrally upon the outer face of the side rails B, preferably by means of the central round B′, and both ends are beveled, as shown at C′, and the ends of the legs are connected by means of cross-rods or rounds C^2 and C^3.

By means of a combination-ladder constructed as described we are able to utilize the parts to make a wall-ladder, as shown in Fig. 1, or a step-ladder, as shown in Fig. 2. To make the wall-ladder, the side rails B are turned up and the legs C then folded close, bringing the cross-rod or round C^2 into the notches or recesses A^3 and groove A^4, thereby providing a lock-joint which will stand any usual strain upon the ladder, the strength of the joint depending upon the strength of the cross-rod or round C^2, which will be sufficient for all ordinary purposes.

To transfer the device into a step-ladder, the side pieces B are folded back and the legs folded against the said side rails B, and the cross-rod or round C^2 again brought into the recesses A^3 and groove A^4, thus forming a lock to prevent the front and rear portions spreading.

In Fig. 3 we have shown the device as an ironing-board, the main rails A being placed flat upon the floor, the side rails B turned up, and the legs C turned to cross the rails B, the cross-rod or round C^3 being fitted into one of a series of notches A^5, produced in the rails A, while the round C^2 fits into a notch D^2 in the end of a cleat D, attached to the bottom of the board E, the bottom round B′ of the rails B being fitted into one of a series of notches D′, made in the bottom of the cleat, and by adjusting the round to the desired notch the board can be made any height necessary.

Figs. 5 and 6 show the table, which is set up by crossing the rails B and legs C, plac-

ing the beveled ends upon the floor, and fitting the rod C^3 into one of the notches A^5. The table-top F (shown in Fig. 7) is then placed upon the main rails A, said top being preferably composed of three leaves hinged together, as clearly shown, this construction being the most convenient.

It will thus be seen that we provide a combination ladder, table, and ironing-board which consists of very few parts and which can be quickly and easily transformed from one device to another without the aid of tools.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a device of the kind described, the combination with the main rails having the enlarged upper ends, notched upon their under edges, said main rails being also notched near their lower ends, of the supplemental rails pivoted at their upper ends to the main rails, below the notches of the enlarged portion, the cross-legs having cross-rods at each end, said cross-legs being pivoted centrally to the supplemental rails, said supplemental rails having rounds, whereby an extension-ladder can be provided, one cross-rod of the cross-legs resting in the notches of the enlarged ends of the main rails and providing a lock-joint, substantially as shown and described.

2. In a device of the kind described, the combination with the main and supplemental rails and cross-legs, said main rails having enlarged ends notched as described, the cross-rods connecting the ends of the cross-legs, and the upper step having a groove in its bottom face, corresponding with the notches, substantially as and for the purpose described.

3. In a device of the kind described, the combination with the main rails notched near the top and also near the bottom, the supplemental rails and cross-legs having the connecting bars or rods, and the ironing-board having a cleat upon the bottom, said cleat having a recess at one end and notches in the bottom near the other end, substantially as and for the purpose described.

WILLIAM PERRY SHAW.
SANFORD S. BROWNLEE.

Witnesses:
LAURA LEPPS,
L. C. LEPPS.