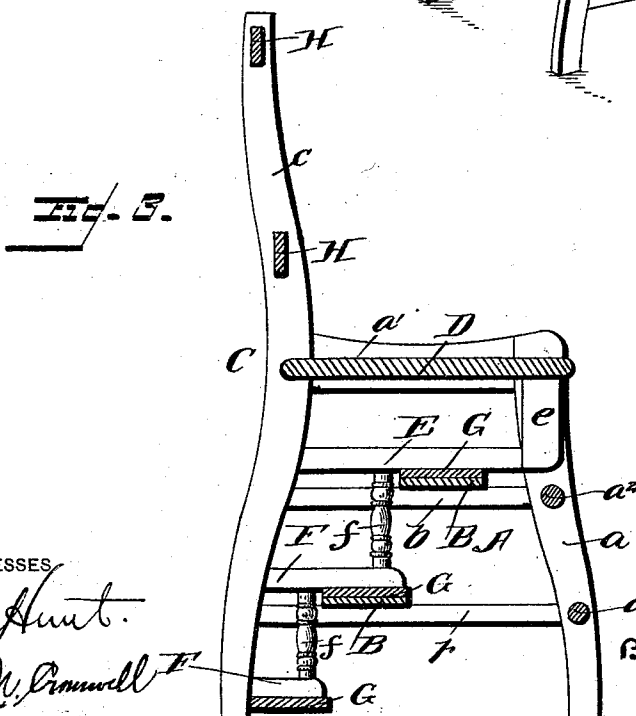
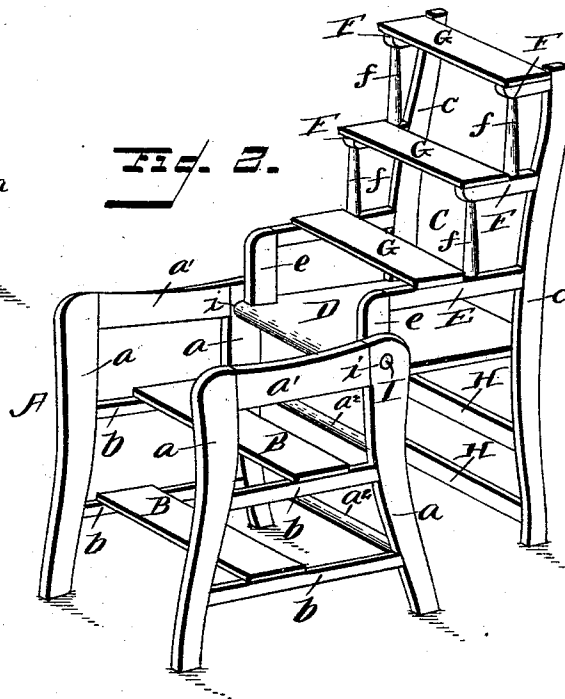
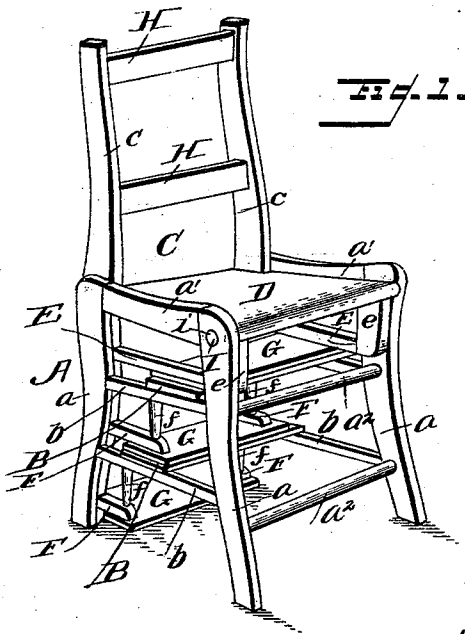


(No Model.)

W. H. WHITE.
COMBINED CHAIR AND STEP LADDER.

No. 514,876.

Patented Feb. 13, 1894.



WITNESSES

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COMBINED CHAIR AND STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 514,876, dated February 13, 1894.

Application filed March 13, 1893. Serial No. 465,797. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HARGRAVE WHITE, a citizen of the United States, residing at Rome, in the county of Floyd and State of Georgia, have invented a new and useful Combined Chair and Step-Ladder, of which the following is a specification.

This invention relates to that class of combined chairs and step-ladders embodying two pivotally connected sections which when folded form a chair, and when opened provide a step-ladder.

The object of my invention is to provide an article of this character in which the base or support has all its parts solid or rigid, whether the device is closed or open, thereby obviating the necessity of securing hooks or the like to retain the movable section in the position to which it has been adjusted.

To this end, my invention consists, substantially, in the construction, combination and arrangement of parts, as will be hereinafter more fully described and particularly pointed out in the claims.

In the drawings—Figure 1 is a perspective view of a combined chair and step-ladder embodying my invention, and illustrating the same closed for use as a chair. Fig. 2 is a similar view showing the device opened for use as a step-ladder. Fig. 3 is a vertical longitudinal sectional view of Fig. 1.

Corresponding parts in all the figures are denoted by the same letters of reference.

Heretofore in the construction of combined chairs and step-ladders, it has been customary to divide the base into two vertical sections, hinged together, one of said sections forming a part of the movable or folding section. But such construction is open to the objection that it is necessary to employ hooks or other securing means to render the device stable when used as a chair or step-ladder, or both.

The main object of my invention is to entirely overcome this objection, and to produce a combined chair and step-ladder which will perfectly retain its position either as a chair or step-ladder, without the use of securing means to connect the stationary and movable sections together.

Referring to the drawings, A designates the base or stationary section which is of a depth equal to the full depth of the device when

closed, and comprises four legs, *a*, the legs of each side being connected but spaced a distance apart at their upper ends by a cross-piece, *a'*. Below the latter are two or more horizontal cross-pieces, *b b*, connecting the legs of either side, and upon said cross-pieces *b* are secured step-boards, B. The step-boards are arranged with the lowermost one nearest the back of the base A and the remainder nearer to the front of the latter in successive order. The cross-pieces *a'* and *b*, and the step-boards all tend to securely brace the legs, and in addition thereto, rungs, *a''*, connecting the front legs, may be provided.

C designates the movable section, which comprises two parallel bars, *c c*, of a length corresponding to the full height of the device when closed or open and having their ends curved outward. Midway between the ends of these bars is secured the rear edge of a seat, D, the latter being of a depth corresponding to the depth of the upper end of the base A. The seat is located at right angles to the plane of the bars *c*, and from its under side, at the ends of its forward edge, project two short bars, *e e*. The latter are connected at their outer ends with the bars *c* by side cross-pieces, E E, and above said cross-pieces are provided two or more horizontal arms, F, projecting from the bars *c*, and parallel with the cross-pieces E. The arms F decrease in length from the lower pair upwardly, and are supported by spindles or arms, *f*, secured between their outer ends and the next lower arms, or the cross-pieces E.

Upon the cross-pieces E and the arms F are secured step-boards, G, so arranged that when the folding section is open the step-boards G form a continuation of the step-boards B, with the forward portion of the bottom of the seat serving as an intermediate step. The back of the chair is completed by providing cross-pieces, H, connecting the free portions of the bars *c*.

In order to properly connect the stationary and movable sections together, the seat is provided at the forward ends of its side edges with outwardly-projecting pins, I I, which are preferably formed integral with the front strip of the seat. These pins are disposed in bearing apertures, *i i*, provided through the upper front corners of the base A.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

When the device is folded as a chair, the lower half of the movable section is entirely contained within the space between the fixed rear legs of the stationary section, with the step-boards of the two sections resting respectively one upon the other. When a step-ladder is desired, the back of the chair is thrown forwardly into the position shown in Fig. 2, when the distal portion of the movable section is supported by the bars *c*.

It will be obvious, that owing to the construction which insures to the stationary section a depth equal to the entire depth of the bottom when folded, a greater degree of stability is insured, and without the use of hooks or other securing means.

The article is simple in construction, and manufactured entirely of wood, the use of metal bolts or the like being also entirely dispensed with.

The outward or rearward curve of the back when opened provides a deep or long floor-base for the device, similar to that possessed by the ordinary step-ladder and thereby promotes great stability, and rendering unnecessary any kind of stay rods, locks or catches, thus relieving the chair of useless manipulations as well as useless weight.

I have found the chair to be really more steady and solid than the usual step-ladder is, and it is therefore safer especially for ladies.

My improved device, when it is folded bears so close a resemblance to an ordinary chair, that on casual notice a difference would not be observed, so that its presence in any room would not be in the slightest degree objectionable.

By spacing apart the upper ends of the two legs forming each side of the base, by means of horizontal bars, said sides act as a protec-

tion to the back of the movable section when the device is used as a chair, and when used as a step-ladder the rear upper corners of these sides project as arms which may be conveniently grasped by the operator in ascending the ladder.

I claim as my invention—

1. In a combined chair and step ladder, the combination, with a rigid base comprising two fixed sides composed each of two legs spaced apart at the top and connected by steps, of a movable section provided with steps and with a back and a seat, said movable section being pivotally connected with said base, and the back thereof adapted when closed to be contained between and protected by said fixed sides; substantially as and for the purpose set forth.

2. In a combined chair and step-ladder, the combination, with a base, *A*, comprising legs, *a*, the legs of each side being spaced a distance apart but connected at their upper ends by a horizontal cross-piece, *a'*, and steps, *B*, connecting the side sections of the base, said side sections being provided with apertures, *i i*, at their forward upper corners, of a movable section, *C*, comprising two bars, *c c*, a seat, *D*, secured at its rear edge midway between the ends of said bars, and provided at the forward ends of its side edges with projecting pins, *I I*, adapted to bear in the apertures *i*, said seat being unbroken and of a depth approximately corresponding to the depth of the upper end of the base, and steps, *G*, carried by said movable section; substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HARGRAVE WHITE.

Witnesses:

C. J. WARNER, Jr.,
R. R. HARRIS, Jr.