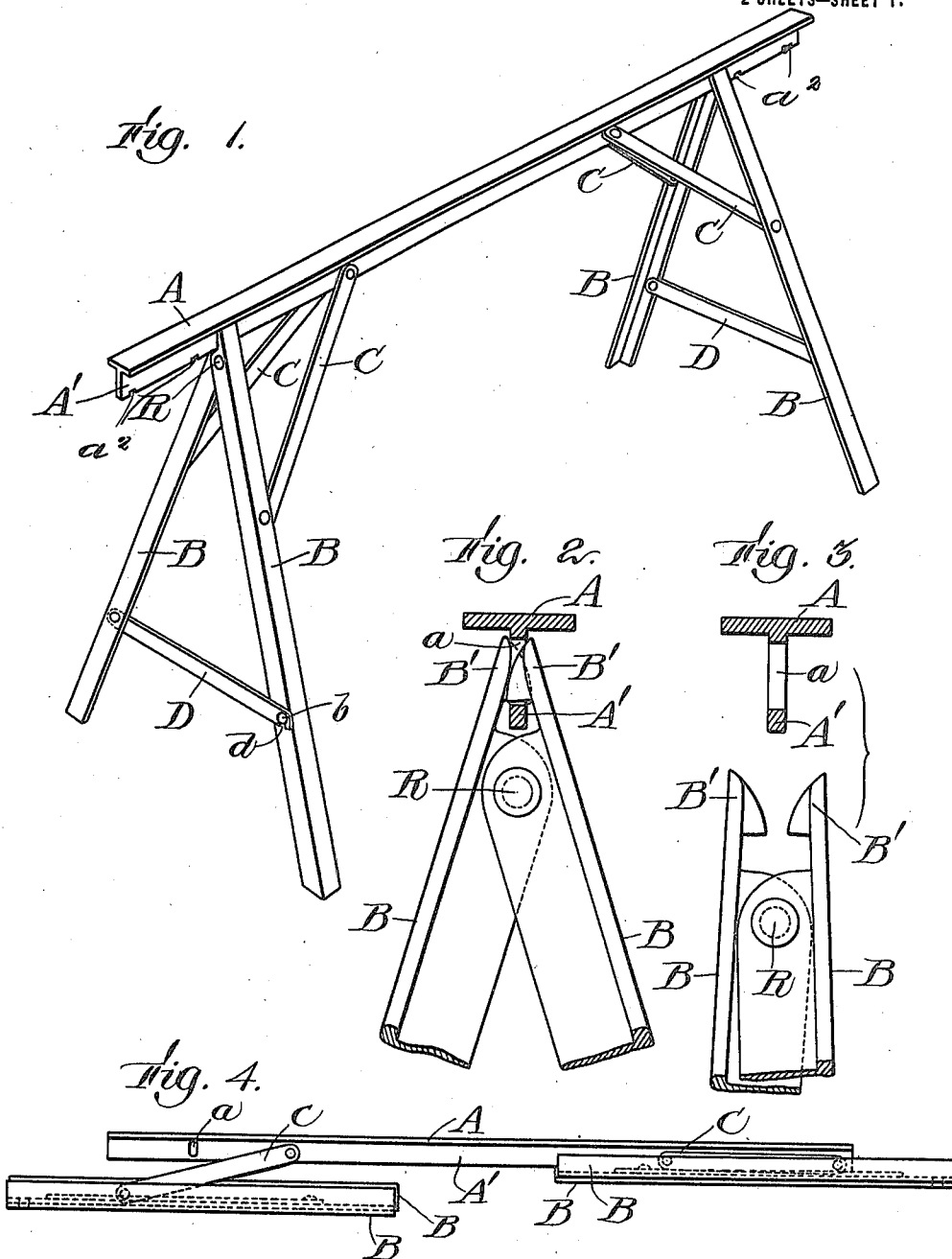


L. I. BECKWITH.
FOLDING FRAME.
APPLICATION FILED JUNE 17, 1915.

1,224,893.

Patented May 8, 1917.
2 SHEETS—SHEET 1.



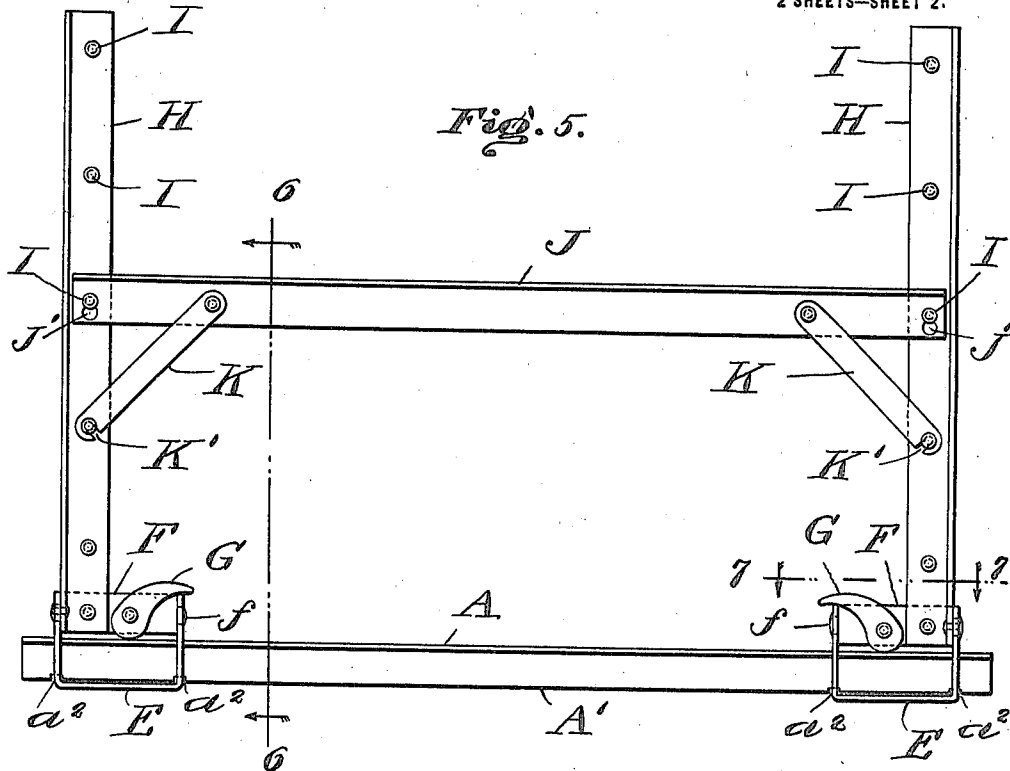
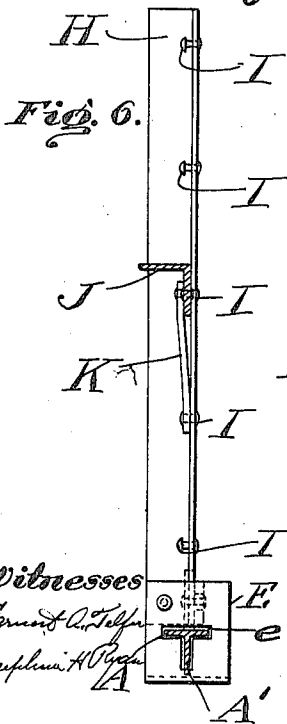
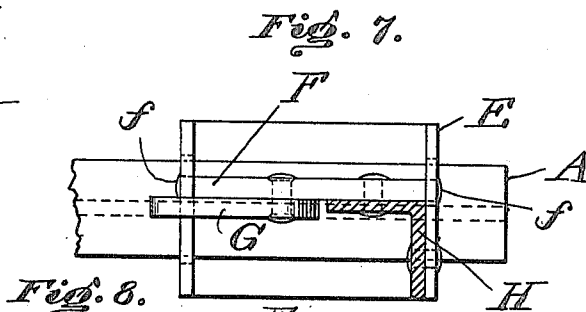
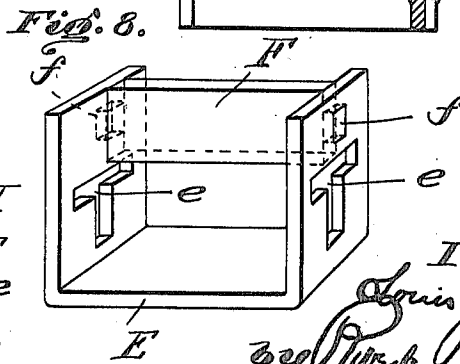
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UNITED STATES PATENT OFFICE.

LOUIS I. BECKWITH, OF BOSTON, MASSACHUSETTS.

FOLDING FRAME.

1,224,893.

Specification of Letters Patent.

Patented May 8, 1917.

Application filed June 17, 1915. Serial No. 34,723.

To all whom it may concern:

Be it known that I, LOUIS I. BECKWITH, a citizen of the United States, and resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Folding Frames, of which the following is a specification.

This invention relates to folding frames such as are employed for supporting working benches, tables, staging platforms, and the like, and its object is to provide a frame which is light, strong and durable and which may be readily knocked down and compactly closed or folded so that it can be easily transported from place to place or stored.

Referring to the drawings which illustrate an embodiment of my invention,—

Figure 1 is a perspective view of my improved frame with the extension member removed;

Fig. 2 is an enlarged detail view, partly in cross section and partly in elevation, showing the supporting legs connected with the top bar;

Fig. 3 is a similar view, showing the legs folded together and disconnected from the top bar;

Fig. 4 is a side view showing the frame knocked down;

Fig. 5 is a side elevation of the extension member attached to the top bar;

Fig. 6 is a section on the line 6—6 Fig. 5;

Fig. 7 is a detail plan view on an enlarged scale on the line 7—7 Fig. 5; and

Fig. 8 is a perspective view of the extension member bracket.

My improved frame or horse is preferably made of iron bars or rails, and has a horizontally extending top bar A, T-shaped in cross section to provide a vertical flange A' on its under side having notches a^2 . B are the supporting legs, preferably made of angle iron as shown, and pivotally connected with the top bar A by braces or links C, each of which is pivotally secured at one end to the vertical flange A' and at its other end to a leg B. The legs of each pair are pivotally connected near the top, as by a rivet R, and are further provided with a strut D pivotally secured to one leg of the pair and having a notch d adapted to engage a stud or projection b on the other leg.

Each of said supporting legs B is provided at its top with an integrally formed

hook or projection B' adapted to enter openings a in the vertical flange A' of the top bar and detachably to secure said legs and said top bar as hereinafter described.

When the frame is in its knocked down or folded position shown in Fig. 4, each pair of supporting legs is folded together in the position shown in Fig. 3. To set up the frame the legs B are swung downward upon the links C from their position against or parallel to the top bar A (Fig. 4), and the hooks or projections B' of each pair are passed upward on opposite sides of the opening a in the flange A', this being readily accomplished by reason of the clearance between said hooks B' when the legs are in their folded position, as clearly shown in Fig. 3. The legs of each pair are then swung outward on their pivot R, causing the hooks or projections B' to enter on opposite sides of the opening a and to engage the flange A' (Fig. 2). The legs are then secured in open position by engagement of the strut D with the stud b , thus firmly but detachably securing the supporting legs to the top bar.

To knock down the structure it is necessary merely to disengage the strut D and swing the legs of each pair toward each other on their pivot R. This inward movement of the legs draws the projections B' out of the opening a and permits each pair of legs to be compactly folded (Fig. 3) and to be swung on the links C against or parallel to the top bar A, as clearly shown in Fig. 4.

Preferably my improved frame is provided with means removably secured to the top bar A and adapted to support a staging platform or the like when the particular work requires a higher support than is provided by the top bar A. Near each end of said top bar (Fig. 5) there is removably secured a bracket E preferably U-shaped as shown and provided in its vertical sides with T-shaped apertures E conformable to the shape of said top bar to permit the bracket to be slid on to said top bar. The said vertical sides of the bracket are connected by a tie F having tensions f (Fig. 8) passing through said sides and headed over on the outside. Pivoted on said tie F and engaging the top bar A is a cam-like clamp G adapted to force the bracket E into the notches a^2 of the flange A' and lock said bracket upon the top bar A.

Each of said brackets is provided with an upright H preferably made of angle iron as shown and having one web riveted to the bracket and the other riveted to the tie F.
5 The said uprights are provided with studs I spaced apart to support the cross bar J at varying positions thereon. The cross bar J preferably has keyhole slots J' to facilitate the insertion and removal of said studs and
10 is further provided with a pair of pivoted braces K having notches K' adapted to engage the studs I when the cross bar is in working position as shown in Fig. 5.

A frame made in accordance with my invention above described is strong in construction and fully adapted for all the uses to which devices of this type are customarily put. At the same time, by reason of its lightness and adaptability for compact
20 folding, the frame may be readily carried from one job to another, thus eliminating the necessity of making new frames on each job according to the common practice in many trades. Furthermore, such frames
25 when knocked down can be readily stored in comparatively large numbers in a comparatively small space.

I claim:

20 1. A frame comprising a top-bar T-shaped in cross-section, a pair of supporting

legs therefor, U-shaped brackets formed of a single sheet of metal and having their vertical sides provided with T-shaped apertures conformable to the shape of said top bar whereby said brackets may be
35 slipped onto said top bar, a tie member connecting the vertical sides of said U-shaped brackets, uprights of angle iron having one flange rigidly secured to said ties and the other flange to the side of said U-
40 shaped brackets, and a cam lever pivoted to said tie and adapted to engage the top of said top bar to lock said brackets to said bar.

2. A frame comprising a top bar, a pair of supporting legs therefor, a bracket hav-
45 ing apertures in its walls conforming to the shape of said top bar whereby the brackets may be adjusted longitudinally of said bar, uprights rigidly secured to said brackets,
50 means carried by the brackets to lock the same in adjusted position to said top bar, and a cross-bar detachably secured to said uprights and adapted to be adjusted vertically thereon.

Signed by me at Boston, Massachusetts, 55
this 15th day of June 1915.

LOUIS I. BECKWITH.

Witnesses:

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