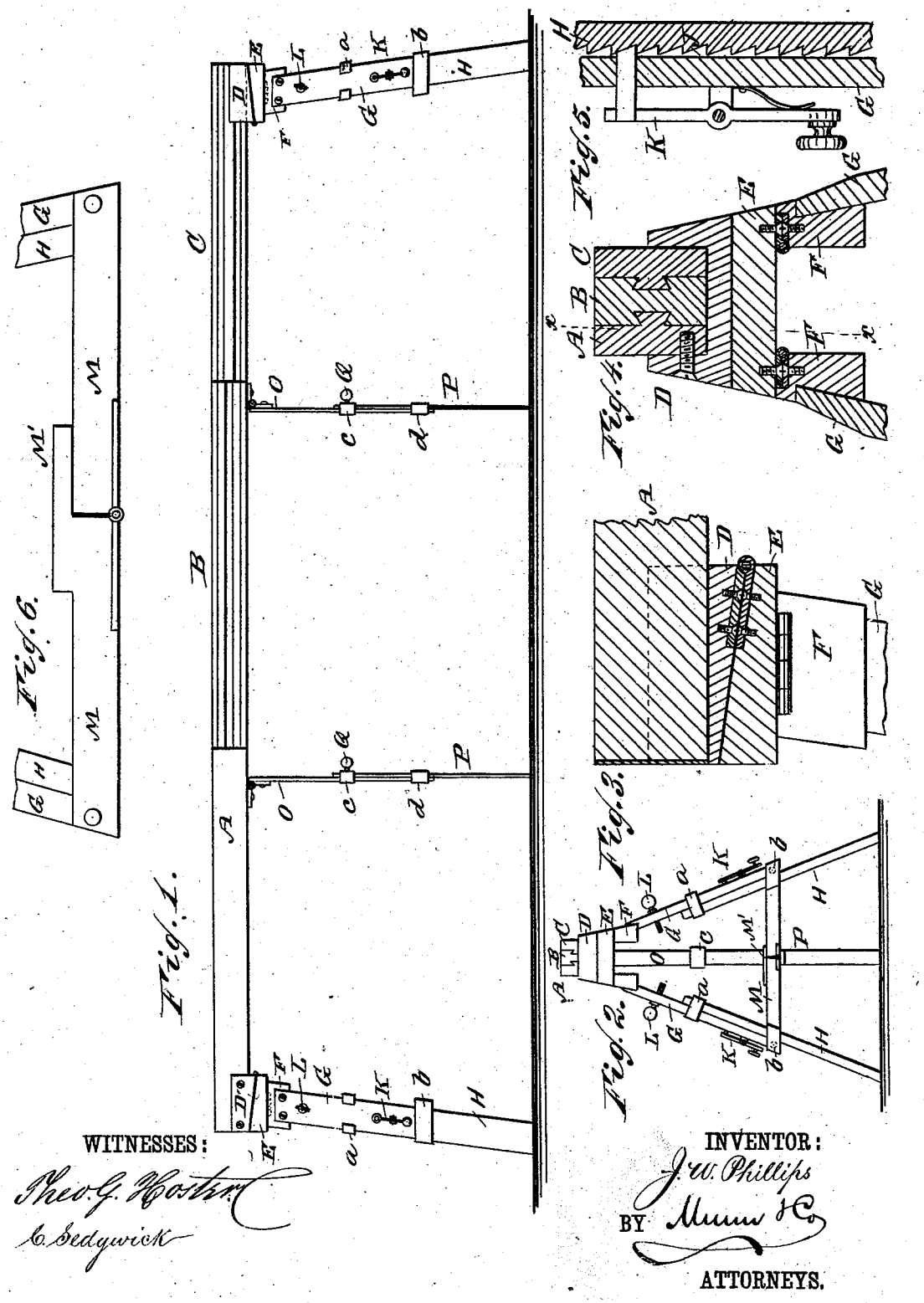
(No Model.)

J. W. PHILLIPS.

COMBINED EXTENSION SAW HORSE AND SCAFFOLD.

No. 292,352. Patented Jan. 22, 1884.



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JOHN W. PHILLIPS, OF OAKDALE, NEBRASKA.

COMBINED EXTENSION SAW-HORSE AND SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 292,352, dated January 22, 1884.

Application filed December 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. PHILLIPS, of Oakdale, in the county of Antelope and State of Nebraska, have invented a new and Improved Combined Extension Saw-Horse and Scaffold, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved extension saw-horse and scaffold, which may be adjusted in height and in width very easily and rapidly according to requirements.

The invention consists in a saw-horse constructed with an extensible top piece and with extensible legs hinged to a hinged head-block, and also with intermediate extensible legs hinged to the top piece, whereby the saw-horse is adapted to be used for various purposes, can be lengthened, shortened, and reduced or increased in height, as circumstances may require, very easily and rapidly.

The invention also consists in details of construction and combinations of the same, as will be fully described and set forth hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved saw-horse, showing the same extended and having its legs lengthened. Fig. 2 is an end elevation of the same, showing it in the same position. Fig. 3 is an enlarged longitudinal sectional elevation of the saddle and the top plate to which it is hinged, on line *x x*, Fig. 4. Fig. 4 is an enlarged cross-sectional elevation of the same. Fig. 5 is an enlarged longitudinal sectional elevation of an extension-leg of the horse, showing the latch. Fig. 6 is a longitudinal elevation of the hinged folding brace of one pair of legs of the horse.

The top piece of the horse is formed of three strips, A, B, and C, which rest against each other, the strips A and C being provided in their inner sides with dovetailed tongues passing into dovetailed longitudinal grooves in the sides of the middle strip, B, as shown in Fig. 4, thus permitting the said pieces A and C to slide on the middle piece, B. The opposite ends of the strips A and C are attached to wooden saddles D, which are provided in their tops with recesses of sufficient size for receiving the width of the three strips, as shown in Fig. 4. The strips A and C can be held to the saddles D by means of screws, as shown, or by means of any other suitable devices. The bottom surfaces of the saddles D are beveled in such a manner that the height of the saddles increases from the outer toward the inner end. A head-block, E, the upper surface of which is beveled to fit against the beveled surface of the saddle D, is pivoted to the saddle at the inner end, and to the bottom surface of the head-block E socket-blocks F are pivoted at the opposite sides, in which sockets F the upper ends of the legs G are secured by means of screws or other devices. The head-block is pivoted in such a manner that the legs can swing under the top piece of the horse lengthwise, and the socket-blocks F are pivoted in such a manner that the lower ends of the legs can swing toward each other. The legs G are provided with extension-legs H, which rest against the inner surfaces of the same, and are held against the legs G by clips *a*, attached to the upper ends of the extension-legs H, and clips *b* attached to the lower ends of the legs G. The extension-legs H are provided with racks J, having upwardly-projecting teeth on their inner surfaces, and the legs G are provided on their outer surfaces with spring-latches K, which pass through the legs G and are pressed against the teeth of the rack by the springs of the said latches and automatically lock the extension-legs H in position on the legs G. Screws L pass through the legs G near the upper ends of the same, and serve to lock the extension-legs H on the legs G when the extension-legs are pushed up. The legs G are braced by two braces, M M, pivoted to each other at their lower edges, and pivoted to the lower ends of the legs G, one of which braces M is provided with a lug, M′, at its upper edge, which lug overlaps the upper edge of the other brace, whereby the braces will be stiffened when extended. Legs O are hinged or pivoted to the inner ends of the strips or pieces A and C, and extension-legs P are held on the legs O by means of clips *c*, attached to the

upper ends of the legs P, and clips *d*, attached to the lower ends of the legs O. Binding-screws Q pass through the clips *c*, for the purpose of holding the extension-legs P in the desired position on the legs O. The saddle D, the head-block E, and the socket-blocks F are to be made of cast-iron, the tongued-and-grooved surfaces of the strips A, B, and C may be covered with metal, if desired. The legs O and P are, preferably, to be made of metal, as are also the braces M.

The operation is as follows: When the top piece of the horse is contracted it is supported at each end by two legs, G G, which support the saddle D for receiving the ends of the three strips of the top piece of the horse. If the horse is not high enough, it can be raised by pushing down the extension-legs a greater or less distance. The legs are automatically locked in the desired position by the latches K, which engage with the teeth of the racks J. If the horse is to be lengthened, the strip B is drawn from the strip A, and the strip C in turn is drawn from the strip B, whereby the top piece of the horse will be extended to three times its former length. If desired, it can be extended to only double its former length, if the strip C is not drawn from the strip B. When the top piece of the horse is extended it will be supported between the ends by the legs O and P, which are lengthened correspondingly. The braces M always keep the legs G separated and prevent them from folding together or collapsing accidentally. The meeting surfaces of the saddle D and the head-block E are beveled, and the legs G and H will always be inclined, more or less, outward from the ends of the top piece of the horse, whereby the rigidity of the horse will be materially increased.

The above-described horse can be used as an ordinary saw-horse for carpenters and builders, and it can conveniently be extended to serve as a scaffold or trestle for supporting a platform for painters, plasterers, lathers, or others making or finishing the ceiling of a room.

By means of the above-described horse a scaffold can be built up of a few boards in a few moments, and the height of the scaffold can be adjusted very easily to suit the workmen to perfection.

Very great inconveniences have been experienced by workmen in adjusting the ordinary scaffolds to the proper height. By use of my improved scaffold all these inconveniences are avoided.

When the horse is not in use the legs H are held against the legs G and are folded against each other, the braces M folding at their middle joint, and then the legs are folded under the top piece of the horse, as the head-block E is pivoted to the saddle D in such a manner as to permit of folding the legs under the top piece. The horse will thus occupy but very little space, and can be stored very conveniently.

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

1. In a saw-horse, the combination, with an extensible top piece, of a hinged head-block and extensible legs hinged to said head-block, substantially as herein shown and described.

2. In a saw-horse, the combination, with the saddles adapted to receive the top piece, of head-blocks hinged to said saddles and legs hinged to the head-blocks, substantially as herein shown and described.

3. In a saw-horse, the combination, with the top piece consisting of the strips A C, provided with dovetailed tongues, and the strip B, provided with grooves, of the recessed and beveled saddles D, the beveled and hinged head-block E, and the hinged legs G, substantially as herein shown and described.

4. In saw-horses, the combination, with an extensible top piece, of the saddle D, attached to the ends of the same, the head-block E, pivoted to the saddle D, and the legs G, attached to socket-blocks F, pivoted to the saddle D, substantially as herein shown and described, and for the purpose set forth.

5. In saw-horses, the combination, with an extensible top piece, of the saddle D, attached to the ends of the same, the head-block E, pivoted to the saddle D, the legs G, attached to the socket-blocks F, pivoted to the saddle D, and of the folding braces M, pivoted to the legs G, substantially as herein shown and described, and for the purpose set forth.

6. In a saw-horse, the combination, with the top piece, of the hinged legs G, the extension-legs H, provided with the racks J, the latches K on the legs G, and of the screws L, substantially as herein shown and described, and for the purpose set forth.

7. In saw-horses, the combination, with an extensible top piece, of extensible legs attached to head-blocks at the ends of the top piece, and of extensible legs between the ends of the top piece, substantially as herein shown and described, and for the purpose set forth.

8. In saw-horses, the combination, with an extensible top piece, of extensible legs hinged to head-blocks at the ends of the same, and of intermediate extensible legs hinged to the extensible top piece, substantially as herein shown and described, and for the purpose set forth.

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