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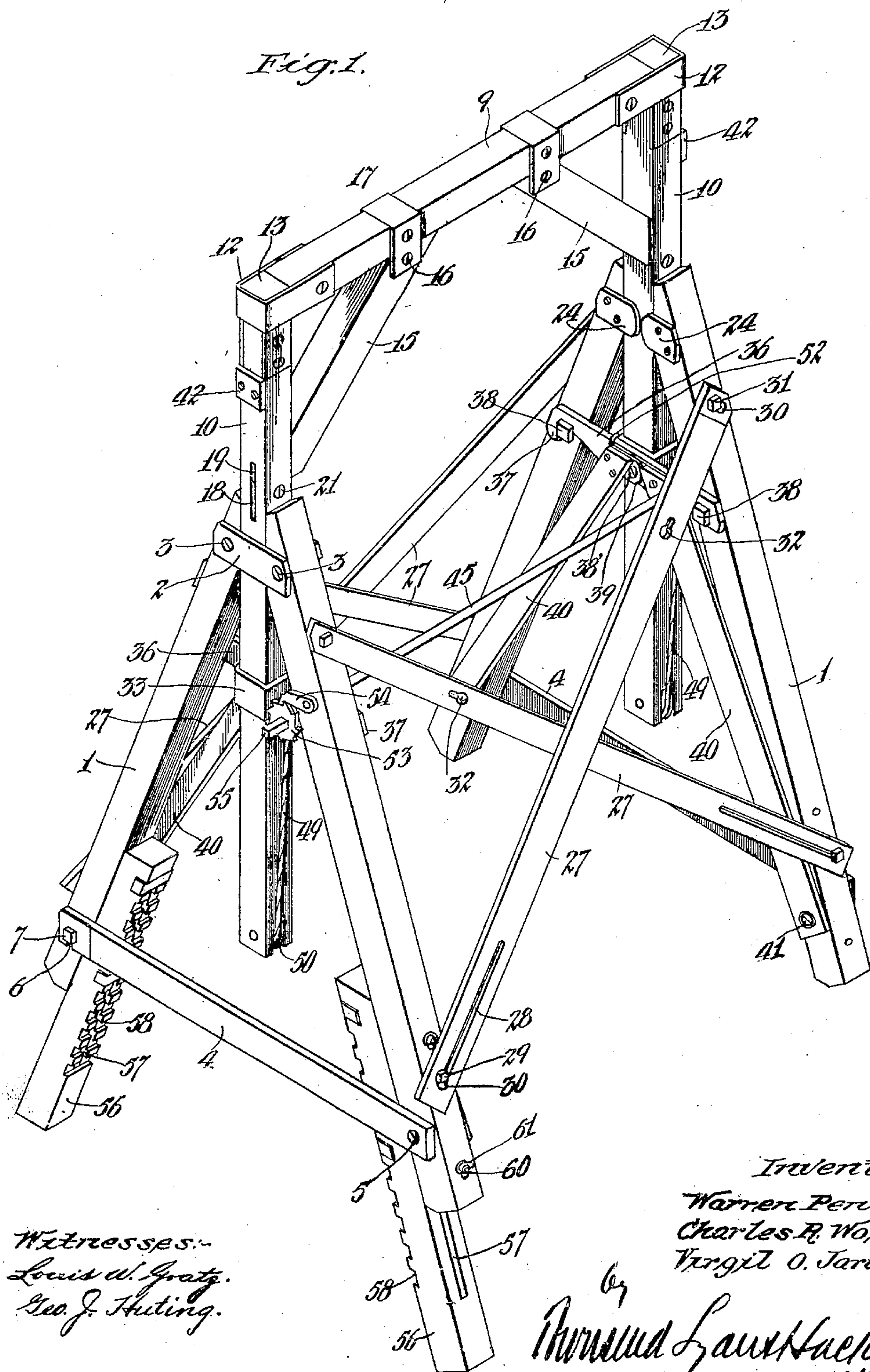
FOLDING EXTENSIBLE HORSE.

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2 SHEETS—SHEET 1.



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# UNITED STATES PATENT OFFICE.

WARREN PENCE, CHARLES R. WOLF, AND VIRGIL O. JARVIS, OF LOS ANGELES,  
CALIFORNIA.

FOLDING EXTENSIBLE HORSE.

962,976.

Specification of Letters Patent. Patented June 28, 1910.

Application filed May 10, 1909. Serial No. 495,191.

*To all whom it may concern:*

Be it known that we, WARREN PENCE, CHARLES R. WOLF, and VIRGIL O. JARVIS, citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Folding Extension-Horse, of which the following is a specification.

This invention relates to a horse for use by painters, plasterers, etc., as a supporting member for the trestle on which the workmen stand, and the main object of the invention is to provide a horse for this purpose which will be extensible to various heights, either with or without the load, and which can be folded into compact space when not in use, or when being transported.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate the invention, and referring thereto:—Figure 1 is a perspective of the horse. Fig. 2 is an end elevation thereof. Fig. 3 is a perspective of the top or cross member of the horse. Fig. 4 is a perspective of one of the legs of the extension member. Fig. 5 is a perspective of a pair of the folding legs. Fig. 6 is a perspective of the operating means for the extension member. Fig. 7 is a perspective of an extension leg. Fig. 8 is a perspective of one of the clamping devices for the extension legs.

The horse comprises two pairs of folding legs and an extension member supported thereby. Each pair of folding legs comprises two leg members 1 which are connected near their upper ends by a plate 2 pivotally connected at 3 to each of the leg members, so that said leg members can fold into parallel position as shown in Fig. 5 or can be extended into open position shown in Figs. 1 and 2. When in such open position the legs may be held extended at a definite angle by a cross bar 4 pivoted at 5 to one of the leg members and having a notch 6 near its other end engaging over a bolt 7 on the other leg member. When thus held in extended position the leg members 1 are separated at their upper ends, forming a guide

or way between them to receive and guide the extension member.

The extension member comprises a top or cross bar 9 and two extension posts 10 depending therefrom. Each post 10 is fastened to the top bar 9 by a clamp consisting of a U-shaped member 12 embracing the top bar at each end thereof and pivoted to the top bar so as to be turned up away from the post 10 or to be turned down over the same to firmly hold the same in position as shown in Fig. 1. The upper portion of the post 10 may be armored, with a loop 13, which forms a socket to receive the end of the top bar 9. The end of the top bar 9 is first inserted in the socket formed by the metal loop 13 and then the pivoted clamp 12 is turned down over the top end of the post 10 and loop 13, where it is gripped by the clamp 12, it being understood that the members 1, 4, 9 and 10 may be of wood. A brace 15 is provided at each corner of the extension member, said brace consisting of a bar pivoted at 16 to a hanger 17 fastened to the top bar 9, the lower end of said bar 15 having a projecting plate or tenon 18 extending into and fitting within a mortise or slot 19 in the post 10, said tenon having a notch 20 fitting over a pin or screw 21 in the post 10 to hold the brace firmly in position. The folding leg members 1 are further provided with inside plates 24, preferably of metal, which engage on the inside of the posts 10 to guide the same. In order to hold the supports constituted by the folding legs at the proper distance, diagonal braces 27 are provided, each brace having a slot 28 near its lower end engaging over a bolt or pin 29 on the leg member and provided with a key hole slot 30 near its upper end which engages over a pin or bolt 31 near the upper end of the opposite leg, the braces 27 being further provided with a key-hole slot 32 to fit over the bolt 31 of its corresponding leg when the parts are folded, as shown in Fig. 5. The long slots 28 permit the brace 27 to be moved down on the leg so that the upper slot 32 can be engaged with the pin 31 on the top of the leg to which the brace is to be



folded against. Additional guiding means for the extension member are provided consisting of a rectangular socket 33 receiving the post 10 on each side, said socket being supported by and pivoted to a cross plate 36 which rests by hooks 37 at its ends on screws or pins 38 on the respective leg members 1 when the folding legs are in extended position. Said cross plate 36 is connected by a pivot 38' to plates 39 on the upper ends of two toggle arms 40 which extend obliquely downward from this pivotal point and are connected by pivots 41 to the respective legs. Stop plates 42 are provided for legs 10. The cross plates 36 also support the operating means for the extension member, said operating means consisting of a shaft 45 resting in round seats or journal portions 46 in said plates and provided with a drum portion 48 near each end, a rope 49 being attached to the said shaft and winding around each drum portion and extending down under a pulley 50 at the bottom of the post 10 and up on the other side of the leg member, its farther end being provided with a hook 52 which is hooked in a notch 44 in the cross plate 36. Said shaft 45 is further provided with a ratchet 53 engaged by a pawl 54 to hold the extension member in an elevated position. A squared portion 55 on the shaft 45 serves to receive a handle for raising the rotating shaft when required to raise the extension member.

Extension legs may be provided for the respective leg members 2, each extension post consisting of a bar 56 having a longitudinal slot 57 and a series of transverse notches 58 adapted to receive a clamp plate 59 fastened into position by a bolt 60 provided with suitable fastening means such as a butterfly nut 61.

When the horse is to be shipped or stored the parts may be dismembered and folded as shown in Figs. 3, 4 and 5, and the horse may be set up for use at any time by opening out the leg members 1, fastening the same into position by the cross bars 4, 27, depressing the braces 15 of the top member 9, slipping the posts 10 into position and clamping the same by the clamp 12 and locking device 20, 21, placing the shaft 45 into position and passing the ropes 49 under the pulleys 50 and hooking the ends thereof in notches 44. The extension member may then be elevated to any required position by operation of the shaft 45. The horse is capable of use on a slope by suitable adjustment of the extension legs 56 at the opposite sides of the horse, the series of notches 58 and the long slot 57 thereof providing for such adjustment.

The extension posts 10 will be furnished of various lengths so that posts of any de-

sired length may be employed according to the work in which the horse is used. This construction enables the top bars 9 to be adjusted high enough to enable plasterers, painters or carpenters to work on the ceiling of any height.

The horse may be adjusted to the desired height while the weight is on it without removing any of it, which is a great convenience particularly for brick layers.

What we claim is:—

1. A folding extension horse comprising folding supports, each support formed with two legs, a connecting member at the upper end thereof, said legs being pivoted to said connecting member and having their upper ends separated to form a guide, means extending between the said legs and provided with a guide, an extension member comprising a top bar, vertical legs depending therefrom and sliding in said guides, a shaft rotatably mounted on said means extending between the legs, a rope connected to and winding on said shaft and engaging said depending legs to raise or lower the extension member, said shaft being provided with operating means and with a ratchet, and a pawl for said ratchet.

2. A folding extension horse comprising a pair of supports, each support consisting of a top member and two legs pivoted thereto, a cross bar pivoted to one of said legs and detachably connected to the other of said legs, bars pivoted to the respective legs near their lower portions and pivoted together at their upper ends forming a toggle, a cross-plate connected to the pivot of said toggle and having a hook at each side of said pivot, each of said legs having a bolt to engage said hook, a guide connected to the pivot of said toggle, a guide formed at the upper end of said legs, an extension member comprising a cross bar and two legs depending therefrom, each leg mounted to slide in the guides of the corresponding support, and operating means supported on said cross plates and connected to elevate the extension member.

3. A folding extension horse comprising folding supports, each support formed with two legs, a connecting member at the upper end thereof, said legs being pivoted to said connecting member and having their upper ends separated to form a guide, means extending between the said legs and provided with a guide, an extension member comprising a top bar, vertical legs depending therefrom and sliding in said guides, a shaft rotatably mounted on said means extending between the legs, a rope connected to and winding on said shaft and engaging said depending posts to raise or lower the extension



member, said shaft being provided with  
operating means and with a ratchet, a pawl  
for said ratchet, and extension posts for  
each of the aforesaid leg members, said ex-  
5 tension posts provided with longitudinal  
slots, and a series of transverse recesses, a  
bolt traversing said slot and secured to the  
leg member, and a plate engaged by said  
bolt and seated in a transverse slot of the  
10 extension leg.

In testimony whereof, we have hereunto  
set our hands at Los Angeles, California,  
this 1st day of May 1909.

WARREN PENCE.  
CHARLES R. WOLF.  
VIRGIL O. JARVIS.

In presence of—

G. T. HACKLEY,  
FRANK L. A. GRAHAM.