My invention relates to improvements in collapsible bench legs and the object of my invention is to provide a detachable, collapsible bench leg or trestle of simple and efficient construction that is particularly adapted for use on staging or low scaffolding of the form commonly used by plasterers, lathers, painters, carpenters and persons engaged in like occupations.

A more specific object of my invention is to provide a detachable collapsible leg of this nature having, near the top, a cross bar that is rigid relative to one leg member and pivoted relative to the other leg member and having an angle bracket or shoe rigidly secured to said cross bar for the reception of a horizontal beam.

Another specific object is to provide prong means at the top of the leg for engaging with a horizontal beam, said prong means being so arranged as to force the beam to seat firmly and squarely within and against the angle bracket on which it rests.

A further object is to provide simple and efficient extension and truss means for a collapsible bench leg of this nature.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings.

In the drawings Figure 1 is a view in side elevation of a saw horse or trestle formed of a beam supported on two collapsible legs constructed in accordance with my invention.

Fig. 2 is an end view on a larger scale of the same.

Fig. 3 is a view showing one of the bench legs in a folded position.

Fig. 4 is a plan view showing a bench leg in an extended or open position with the horizontal beam member removed.

Fig. 5 is a fragmentary view in elevation showing an extension member for the bench leg.

Fig. 6 is an enlarged view partly in cross section and partly in plan showing the fastening means for the extension member.

Fig. 7 is a fragmentary detached view of a brace or truss member that is used when the leg extension members are used.

Referring to the drawings, throughout which like reference numerals designate like parts, I show a preferred embodiment of my invention in which each collapsible bench leg is formed of two, normally upright, supporting members 10 and 11 connected near their top ends by a cross bar 12 that is rigidly secured to the leg member 10 as by rivets 13 and that is pivotally secured to the leg member 11 by a bolt 14. The supporting members 10 and 11 are connected near their bottom ends by links 15 and 16 which are pivoted to the respective members 10 and 11 and are connected with each other by a pivot bolt 17 and which operate on the principle of toggle links to maintain the bottom ends of the members 10 and 11 in a spread apart or extended position. The link 16 is preferably an angle bar with the flange disposed at the upper edge and extending outwardly so that it will come down onto the top edge of link 15 as shown in Fig. 2 and stop further pivotal movement of the links 15 and 16 just after the pivot 17 passes a straight line joining the pivots by which the two links are connected with the members 10 and 11, thus causing the links to lock by reason of pivot 17 passing center. The links 15 and 16 overlap for a considerable distance and are preferably provided near the end of link 16 with holes 18 that register when the links are extended as shown in Fig. 2 so that the shackle of a padlock 19 may be passed therethrough to lock the links in the extended position.

The members 10 and 11 are preferably angle bars and the upper cross bar 12 is also preferably an angle bar with its horizontal flange turned outwardly as respects members 10 and 11. A plurality of holes 20 may be provided in the end of cross bar 12 to afford adjustment for bolt 14 whereby the width between the top ends of members 10 and 11 may be adjusted to beams of different thickness.

Rigidly secured to the top cross bar 12 at right angles thereto is a comparatively short angle bar 21 forming a shoe that is adapted to receive the end of a horizontal supporting member or beam 22. A truss member 23 connects one end of the angle bar 21 with leg member 10 to afford rigidity.

Leg members 10 and 11 are each provided at the top end with knife beveled prongs 24 that are adapted to embed themselves in the beam 22 when the device is set up to firmly grip and hold said beam. The prong 24 on the leg 11 is lower than the corresponding prong 24 on the leg 10 so that when the device is set up as shown in Fig. 2 the point of contact or pressure of leg 11 being below that of leg 10 will force the bottom edge of beam 22.
securely over against the upright side of angle 21. The bevel of the cutting edges of the prongs 24 is shown in Fig. 4 and the advantage of this bevel is that the points that protrude furthest enter the wood first and it requires less force to properly seat such prongs than it would if the cutting edges of the same were not inclined or beveled.

The angle bar 21 is long enough so that when the beam 22 lies therein the bench leg will be braced in such a manner that it will not tend to tip or tilt endwise as it would do if this beam were not of substantial length.

To make this bench leg adjustable as to height, I provide in connection with each leg member 10 and 11 an extension member 25 in the form of an angle bar, preferably of smaller cross section than the leg members, and having perforations 26 adapted to fit over a rigid stud rivet 27 that is provided near the bottom end of each leg member 10 and 11. A triangular clamp member 28 having a clamp screw 29 may be used in connection with stud 27 for securing the extension 25 to the leg member 10 and 11, see Fig. 6.

A brace member 30, see Fig. 7, and dotted lines, Fig. 1 is arranged to be connected with the lower portion of the extension member 25 and with the beam 22 to afford necessary rigidity. The lower end of the brace member 30 is preferably forked as at 31 to fit over the perforated flange of angle bar 25 and is provided with a pin 32 which may be inserted through one of the holes 26 in said angle bar 25.

A bracket 33 of substantially U shape is secured by a pivot 34 to the upper end of brace member 30 and is provided with a screw 35 by which it may be clamped onto the beam 22.

These bench legs are quickly and easily secured to or detached from a beam to form a strong and substantial horse for general use on which staging may be supported. The toggle links 15 and 16 at the bottom ends of the leg members form an efficient means for expanding the bottom ends of such bench legs apart and afford a powerful leverage for seating the prongs 24 in the beam 22.

Making the cross bar 12 rigid with one leg 10 produces a more rigid and substantial structure, obviates substantially all danger of twisting the beam 22 out of its proper position in setting the device up, makes it easier to set said device up and make it possible to secure the shoe 21 to the cross bar 12 and use the rigid angle brace 23 from the leg 10 to the inner end of the shoe.

These bench legs are sufficiently compact in construction so that four of said bench legs, which are necessary to the construction of two horses may be easily carried in a motor car or similar vehicle thus making it possible for a carpenter or a lather or a plasterer to save the time and material ordinarily used in the construction of horses or benches of this nature.

The foregoing description and accompanying drawings clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be resorted to as are within the scope and spirit of the following claims.

I claim:

1. A collapsible bench leg of the class described embodying two leg members, toggle links connecting the lower ends of said leg members and a cross bar extending between the upper ends of said leg members said cross bar being rigidly secured to one of said leg members and pivotally secured to the other leg member.

2. In a collapsible bench, bench legs each embodying two leg members, a cross bar connecting said leg members adjacent the upper end, a shoe formed of an angle bar secured to said cross bar, a beam arranged to rest on said shoe and to be clamped between the top ends of said leg members, the point of contact of one of said leg members with said beam being below the point of contact of the other leg member with said beam and means for holding the bottom ends of said leg members apart.

3. In a collapsible extensible bench leg of the class described, two leg members each formed of angle bars, extension members formed of angle bars and arranged to fit within said leg members, said extension members each having a plurality of perforations in one flange, stud means on said leg members arranged to fit within the perforations in said extension members and a triangularly shaped clamp bracket arranged to fit over said leg members and said extension members and having a screw for clamping the same together.

The foregoing specification signed at Seattle, Washington, this 27th day of July, 1925.

GEORGE F. GOODING.