June 4, 1957 H. B. SCOTT 2,794,688

WORK HORSE

Filed Feb. 8, 1955

Fig. 1

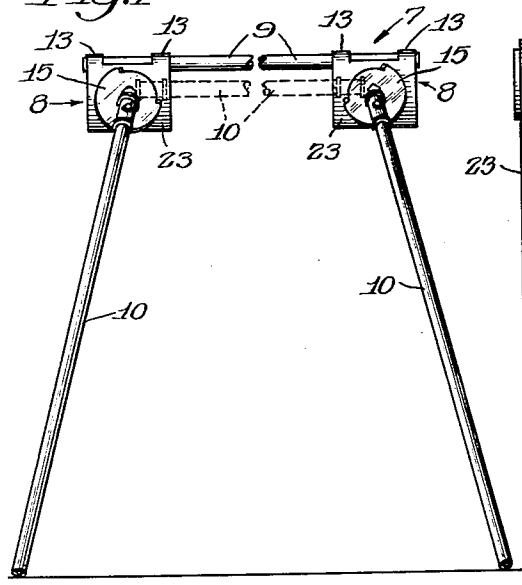


Fig. 3

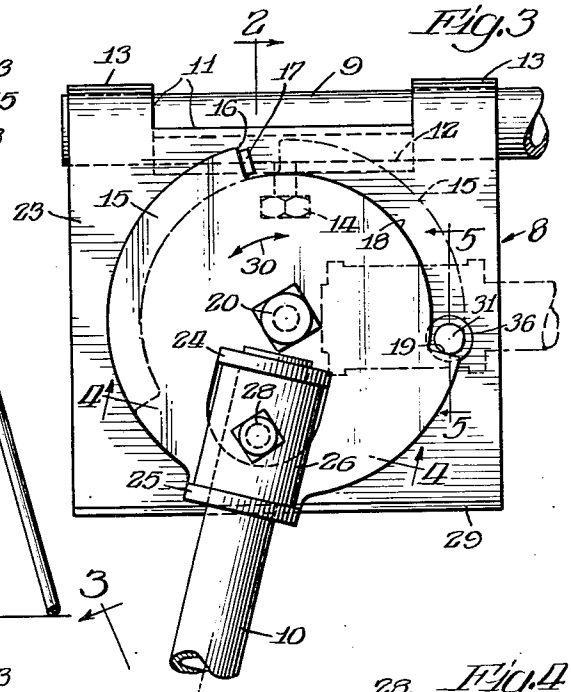


Fig. 2

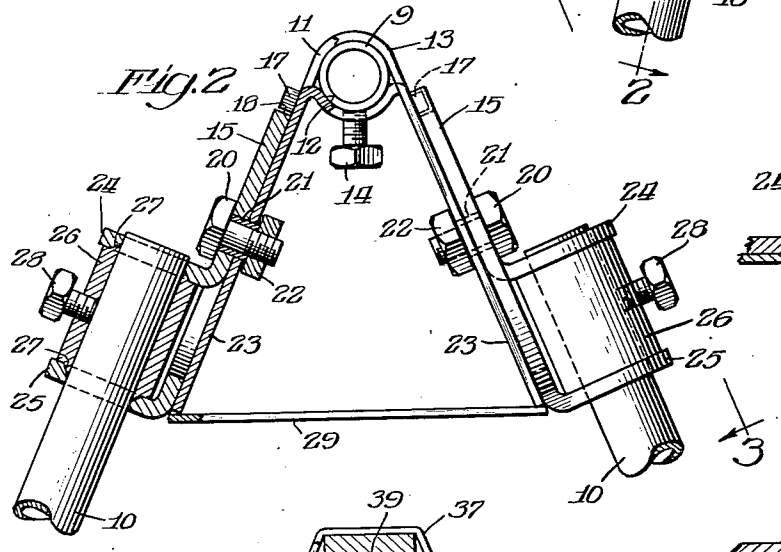


Fig. 4

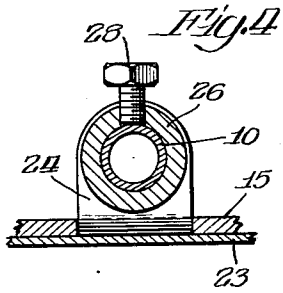


Fig. 5

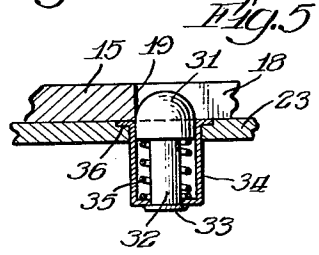
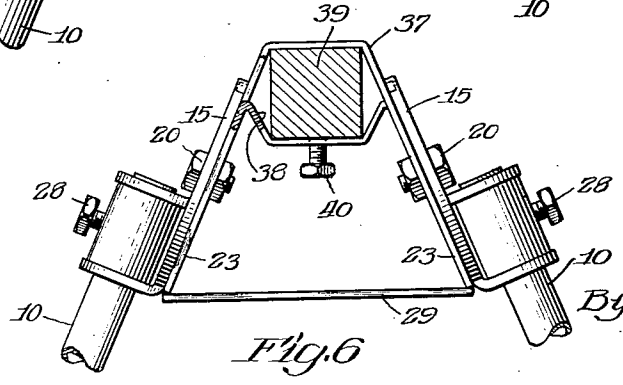


Fig. 6



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WORK HORSE

Harlan B. Scott, Waukegan, Ill.

Application February 8, 1955, Serial No. 486,864

8 Claims. (Cl. 304—5)

My invention relates to work horses or saw horses and the like.

An important object of my invention is to provide a saw horse of the aforementioned character which can be collapsed, or dismantled, so that it may be conveniently carried in the luggage compartment of an automobile, or one which will occupy a minimum of space when not in use.

Another object of my invention is to provide a saw horse of the aforementioned character which is made up of metal and pipe fittings.

A still further object of my invention is to provide an article of the aforementioned character which consists of a pair of head elements on which are mounted radially movable disc-like elements to which the legs of the article are attached.

A still further object of my invention is to provide a saw horse of the aforementioned character which will have as a connecting element a standard pipe element.

A still further object of my invention is to provide a slightly modified form of my invention which will accommodate a wood beam as a connecting element for the head elements utilized in my invention.

A still further object of my invention is to provide an article of the aforementioned character, which is primarily made of pipe elements and stamped sheet metal construction.

A still further object of my invention is to provide an article of the aforementioned character which is practical for the purposes for which it is purported to be used, and is of such elemental construction as to make possible its economical production in quantity.

Other objects and advantages inherent in my invention will become apparent from an examination of the accompanying drawings, bearing further elucidation in the ensuing description, wherein like symbols are used to designate like parts, and in which:

Fig. 1 is a front elevational view of my invention.

Fig. 2 is a cross-sectional view of one head section of my invention taken substantially on the staggered line 2—2 of Fig. 3.

Fig. 3 is an enlarged front view of one of the head sections illustrated in Fig. 2, looking along the lines or arrows 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view taken substantially on the lines 4—4 of Fig. 3.

Fig. 5 is a cross-sectional view taken substantially on the lines 5—5 of Fig. 3.

Fig. 6 is a view similar to Fig. 2, somewhat reduced in size, and illustrating a slight modification of my invention, utilizing a connecting element consisting of a wood beam or the like in place of a pipe element as illustrated in Figs. 1–5 inclusive.

Referring to the various views, my invention is generally designated 7, and consists of two head assemblies generally designated 8 interconnected by a horizontal pipe element 9, which is suitably clamped in place by

bolts or cap screws 14, and held rigidly in place. The head section 8 consists of a pair of leaves 23, which are folded over in angular relationship in order to form the crotches 13 on opposite ends, the central portion being cut out as indicated at 11, and formed downwardly to form an arcuate pocket 12 which will hold in rigid assembly a connecting pipe element 9. The leaves 23 may be interconnected for strength by a cross-bar or strut 29, so as to render the head section 8 strong and durable for the purposes for which it is to be utilized. On each of the outer surfaces of the leaves 23, discs 15 are rotatably secured by means of bolts 20, the bushings 21 and the locknuts 22, the bushings 21 being of a height which is several thousandths of an inch larger than the combined thicknesses of the leaves 23 and the disc 15, so as to permit freedom of movement in the direction indicated by arrow 30.

The disc-like element 15 is provided with a reduced arcuate portion 18 defining stop portions 16 and 19 to limit the radial movement of the disc-like element 15. The disc-like element will abut in operative position for the legs 10 by contact of the tooth 16 against the lug 17, which is stamped out of the leaf section 8. The tooth 19 for purposes of stopping, is provided with foolproof stopping means to prevent the legs from movement by means of the spring-urged hemispherical element 31 which has a reduced shoulder 32 and is mounted in a bushing 34, having a flanged portion 36 fitted into a counter-bored portion of the leaf 23 of the element 8. The reduced extension 32 is peened over at the bottom as indicated at 33, in order to limit the movement upwardly of the hemispherical head section 31 and to permit depression thereof when the disc-like element is to be rotated to bring the legs 10 into collapsed and compacted position, so as to occupy a minimum of room when not in use. The spring element 35 encircles the extension or shoulder 32 and tends to maintain the disc element 15 frictionally against movement.

The legs 10 are secured within the ears 24 and 25 which are suitably bored out and countersunk as indicated at 27, so as to accommodate a collar 26 which has slight extensions to fit into the countersink 27 so that the same will be located firmly in place. A set screw or cap screw 28 is used for binding and holding the legs 10 in rigid security with the disc-like element 15. The device as illustrated in Fig. 1 is in operative position and it may be supported firmly on the ground or other surface upon which work is being done, and a beam board or any other material required to be supported thereby is held thereover as is customary, and sawing or other operations may be thus facilitated and performed.

A slightly modified form of my invention, which is identical in structure with the illustration of Figs. 1–5, is made with the slight refinement that the crotch portions 37 are of trapezoidal formation and the counter portion or pocket portion 38 is also of trapezoidal formation, thus forming a substantially hexagonal polygonal construction in order to accommodate a quadrilateral beam 39, which may be firmly held in place by the cap screw 40, thus furnishing a straight horizontal working surface which is the surface of the beam 39. The work horse may be collapsed by motivating the legs 10 inwardly toward one another, by virtue of depressing the hemispherical button element 31 allowing the tooth 19 to ride thereover and maintain it in frictional gripping security, during the compacted arrangement. The pipe elements 10 may be removed as well as the pipe element 9 by loosening respectively the cap screws 28 and the cap screws 14, so that the head element and the pipe element may be arranged to occupy an even lesser amount of space.

Although the drawings and the above specification disclose the best modes in which I have contemplated embodying my invention, I desire to be in no way limited to the details of such disclosure, for in the further practical application of my invention many changes in the form and construction thereof may be made as circumstances require or experience suggests without departing from the spirit of the invention as expounded within the scope of the appended claims.

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

1. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, and leg elements secured to said collar means.

2. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means, and fastening means to secure removably said leg elements.

3. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means ,and spring-urged hemispherical frictional means mounted on said head assemblies and below said disc-like elements to maintain said disc-like elements under frictional control.

4. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means, fastening means to secure removably the said leg elements, and spring-urged hemispherical frictional means mounted on said head assemblies and below said disc-like elements to maintain said disc-like elements under frictional control.

5. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, and leg elements secured to said collar means, each of said head assemblies provided with end crotch portions working in concert with a central pocket portion to support said connecting element.

6. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means, and fastening means to secure removably the said leg elements, each of said head assemblies provided with end crotch portions working in concert with a central pocket portion to support said connecting element.

7. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided wih a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means, and spring-urged hemispherical frictional means mounted on said head assemblies and below said disc-like elements to maintain said disc-like elements under frictional control, each of said head assemblies provided with end crotch portions working in concert with a central pocket portion to support said connecting element.

8. A saw horse of the character described, comprising a pair of head assemblies formed of sheet material and being of triangular cross-sectional configuration, a connecting element secured to said head assemblies, disc-like elements articulately mounted on said head assemblies and having limited radial movement, said disc-like elements being provided with a segmental radially undercut portion defining tooth stop portions, lug portions on said head assemblies abuttable by said tooth stop portions, ear portions on said disc-like elements, collar means confined between said ear portions, leg elements secured to said collar means, fastening means to secure removably said leg elements, and spring-urged hemispherical frictional means mounted on said head assemblies and below said disc-like elements to maintain said disc-like elements under frictional control, each of said head assemblies provided with end crotch portions working in concert with a central pocket portion to support said connecting element.

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