May 21, 1929. C. J. GOUGLER 1,714,361

BRACE

Filed July 7, 1924

Fig. 1.

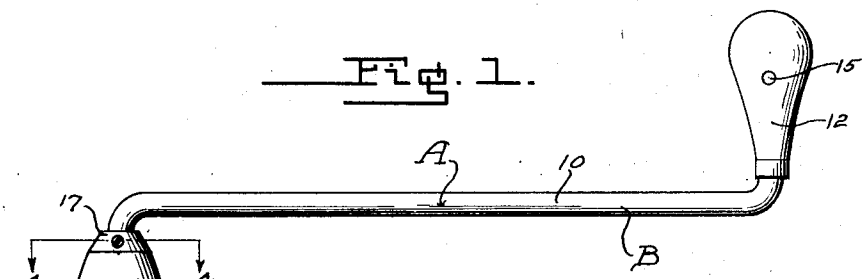
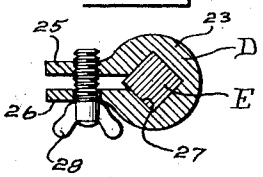


Fig. 3.



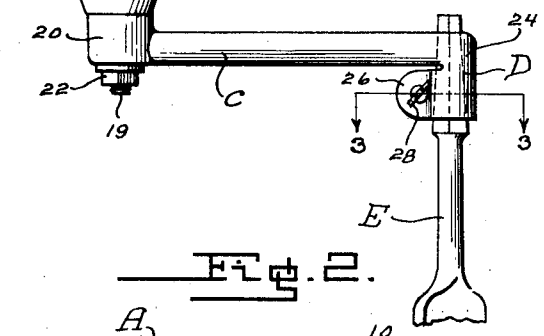
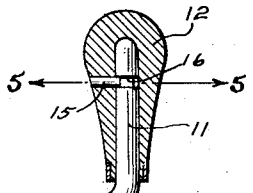


Fig. 2.



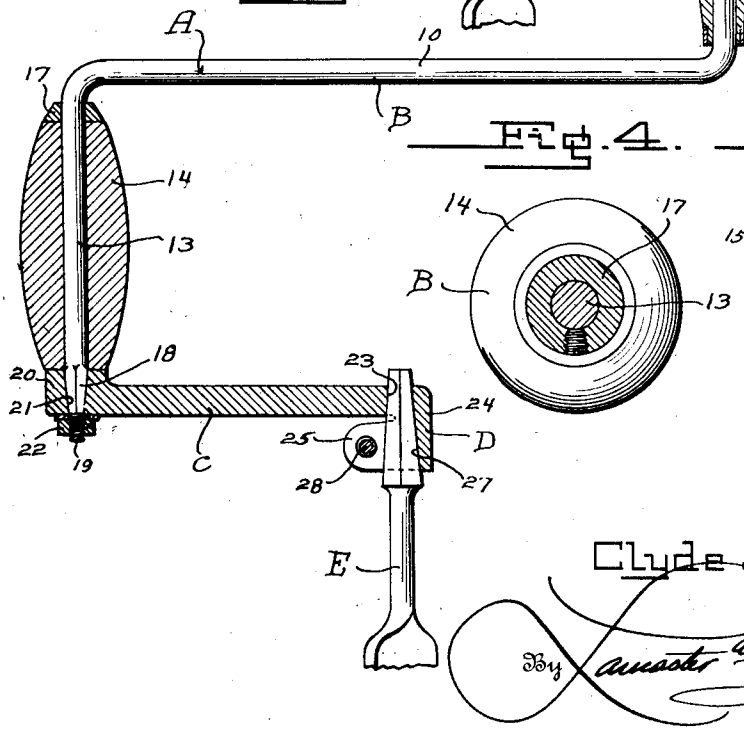
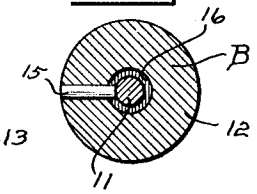


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

CLYDE JAMES GOUGLER, OF TULSA, OKLAHOMA.

BRACE.

Application filed July 7, 1924. Serial No. 724,631.

The present invention relates to tools, and more specifically to an improved brace especially well adapted for use with ship or derrick augers or the like.

The primary object of the invention being to provide an improved brace embodying features whereby the brace may be readily taken apart for permitting of the replacing of any part which may have become broken or worn out.

A further object of the invention is to provide an improved brace of the character described which is simple in construction, and a brace wherein the strength and utility thereof is in no manner impaired by the knockdown features of the brace.

A still further object of the invention is to provide an improved clamp socket for a brace of the character described, which will not spread and allow the auger to turn in the socket due to an undue strain being brought upon the brace.

Other objects and advantages of my invention will appear in the following detailed description, taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing:—

Figure 1 is a side elevation of my improved brace, and showing a portion of an auger carried thereby;

Figure 2 is a view partly in plan and partly in central vertical section of the same;

Figure 3 is an enlarged section on line 3—3 of Figure 1;

Figure 4 is an enlarged section on line 4—4 of Figure 1; and,

Figure 5 is an enlarged section on line 5—5 of Figure 2.

Referring to the drawing in detail, and wherein like characters designate corresponding parts throughout the several views, the letter A designates my improved brace embodying a handle portion B, and a socket arm C provided at its free end with a socket D for receiving the shank of an auger or other suitable implement E for rotation by the brace.

The handle B embodies a sweep bar 10 having an upwardly turned, right angular portion 11 formed at one end thereof for rotatably receiving a head 12, and having a downwardly turned, right angular portion 13 formed at its opposite end for rotatably receiving a handle 14. The head 12 may be rotatably held upon the portion 11 by means of a pin 15 extending through one side of the head and having its inner end extending into an annular recess 16 provided in the portion 11. The handle 14 which is rotatably mounted upon the down turned portion 13, is adapted to be held against longitudinal movement on the portion 13 by means of an adjustable handle collar 17 which may be moved into abutting relation with the upper end of the handle after the socket arm C has been rigidly secured to the lower end of the portion 13. The lower end of the portion 13 is provided with a square and tapering portion 18 which terminates in a screw threaded end portion 19, and to this lower end portion, the socket arm C is adapted to be attached.

The socket arm C which is adapted to be disposed directly below the bar 10, is of a length equal to one half the distance between the major axes of the portions 11 and 13, and has formed at its outer end a shoulder 20 which provides an end bearing for the lower end of the handle 14. A square and tapering hole 21 is provided in the shoulder 20 for receiving the squared portion 18, which is adapted to be drawn tightly into the hole 21 by means of a nut 22 threaded upon the threaded end portion 19. Adjacent the inner end of the arm C; a square and tapering opening 23 is provided, and through which the tapering square head of the aguer E is adapted to pass when positioned in the socket D.

Referring to the socket D, which is preferably formed integral with the socket arm C, the same consists of a body portion 24 which extends downwardly from the innermost end of the arm, and is bifurcated for forming wings 25 and 26 which extend below the arm C and partially embrace the square head of the auger E. A square and tapering opening 27 provided in the bifurcated body portion 24, is adapted to have the tapering walls thereof aligning with the tapering walls of the opening 23, so as when the tapering end portion of the auger is inserted into the socket, a portion of the tapering end will be permitted to extend upwardly through the opening 23 for aiding in preventing rotation of the auger stem within the socket. A wing nut 28 which passes freely through the wing 26, and is threaded into an aligning threaded opening provided in the wing 25, is adapted for drawing the socket into binding engagement about the shank of the auger for preventing rotation of the auger within the socket and also retaining the auger against withdrawal. It will be seen that the socket

forms a substantially U-shaped clamp which will not spread and permit the auger stem to be rotated within the socket, as do the type of sockets which are divided into two sections and provided with merely one clamping nut disposed at one side of the shank receiving portion of the socket.

While in the preferred construction of the brace, the axis of the socket D has been shown disposed medially of the axes of the portions 11 and 13, it is to be understood that the axis of the socket D may be disposed in axial alignment with the portion 11 for providing a single sweep brace if so desired.

Changes in detail may be made without departing from the spirit or scope of my invention; but,

I claim:

1. A brace comprising a handle portion, an arm detachably secured at one end to the handle portion and having a square and tapering aperture formed therethru adjacent the free end thereof, a socket integrally formed at the free end of said arm including a body portion extending downwardly at a right angle from the end of the arm beyond the aperture and having spaced wings extending longitudinally below the arm, said socket being provided with a square and tapering opening extending at a right angle to the longitudinal axis of the arm and having the tapering walls thereof aligning with the walls of the tapering aperture in the arm, and means for contracting the wings about an auger shank having its end portion projecting thru the aperture in the arm.

2. In a brace comprising a handle embodying a downwardly turned portion, a socket arm detachably secured at its outer end to the lower end of the downwardly turned handle portion and having a polygonal shaped upwardly tapering aperture formed thru its inner end portion at a right angle to the longitudinal axis of the arm, said arm also being provided at its inner end with an integrally formed socket portion including a body portion extending downwardly at the extreme inner end of the arm at a right angle to the arm and being slotted longitudinally beneath the arm for providing a pair of spaced yieldable wings extending below the arm and at opposite sides of the axis of the polygonal shaped aperture, and a clamping element extending thru the free end portions of the wings for clamping the socket portion about an auger shank.

CLYDE JAMES GOUGLER.