No. 684,722. Patented Oct. 15, 1901.

E. S. ROSE.

BRACE FOR AUGER BITS AND AUGERS.

(Application filed Jan. 12, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

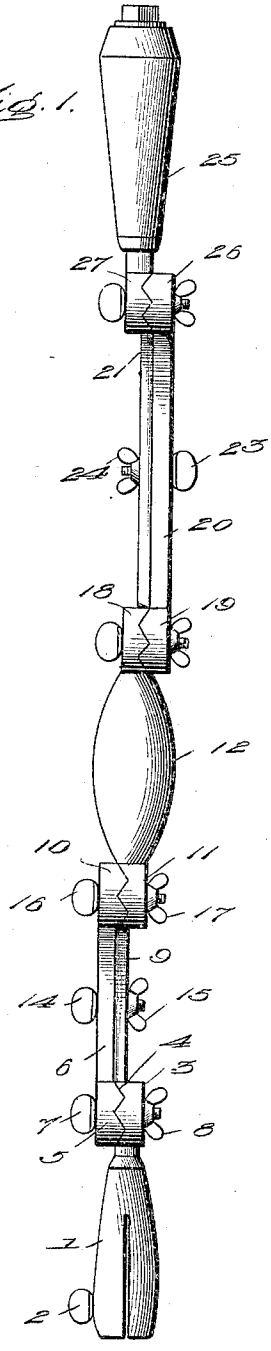
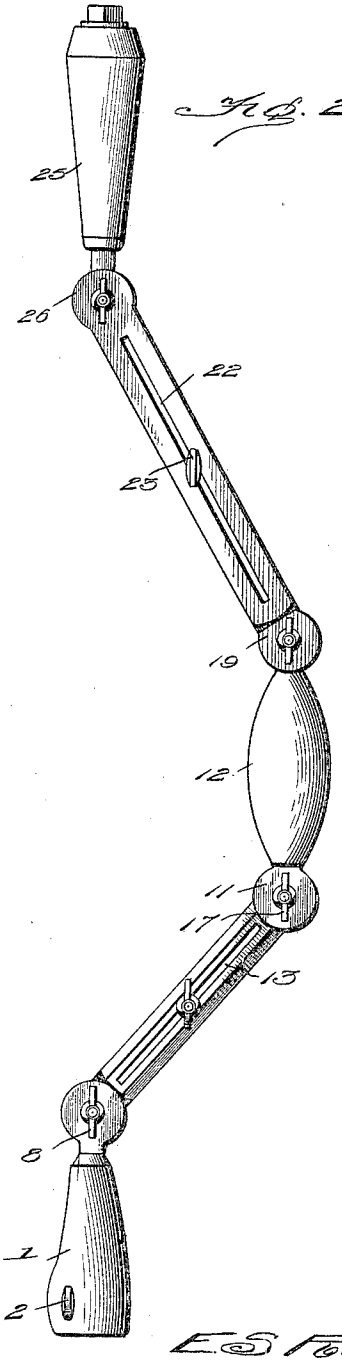


Fig. 2.



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Fig. 3

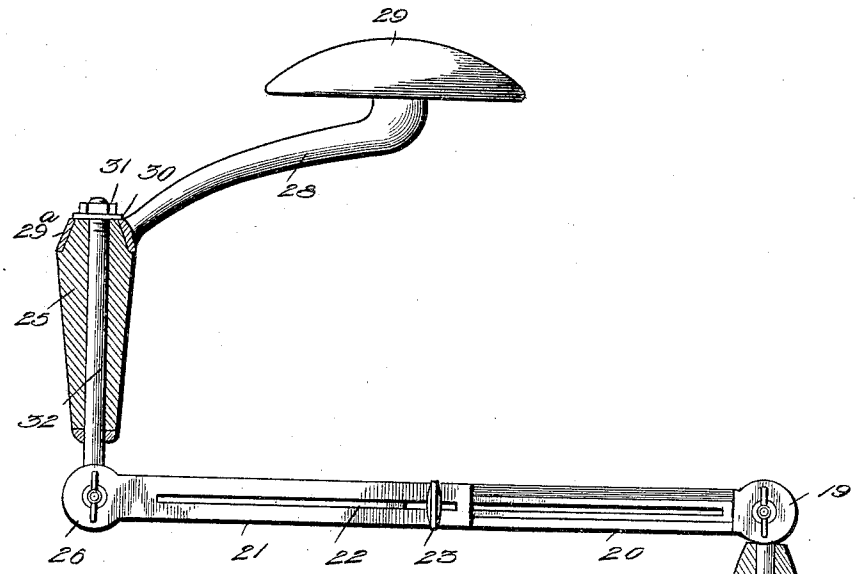
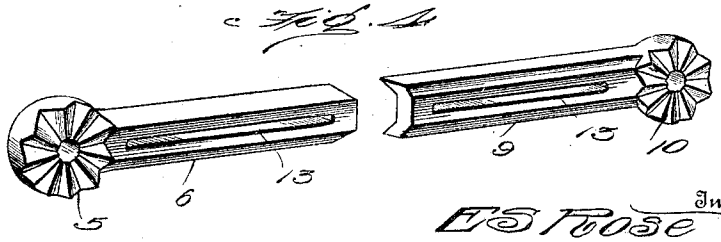


Fig. 4



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UNITED STATES PATENT OFFICE.

EUGENE S. ROSE, OF STOCKBRIDGE, MICHIGAN.

BRACE FOR AUGER-BITS AND AUGERS.

SPECIFICATION forming part of Letters Patent No. 684,722, dated October 15, 1901.

Application filed January 12, 1901. Serial No. 43,044. (No model.)

To all whom it may concern:

Be it known that I, EUGENE S. ROSE, a citizen of the United States, residing at Stockbridge, in the county of Ingham and State of Michigan, have invented new and useful Improvements in Braces for Auger-Bits and Augers, of which the following is a specification.

My invention relates to braces for auger-bits and augers; and its primary object is to provide means for adjusting the brace in all directions, thus adapting it to be adjusted to a great variety of positions and increasing its utility and efficiency.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawings, forming a part of this specification, and its novel features will be defined in the appended claims.

In the drawings, Figure 1 is a front elevation of a bit-brace constructed in accordance with the invention. Fig. 2 is a side elevation thereof. Fig. 3 is a side elevation, partly in section, of a slightly-modified construction of the device; and Fig. 4 is a view in perspective of two of the longitudinally-adjustable arms.

The reference-numeral 1 designates a split socket to receive the bit, provided with the usual thumb-screw 2 for clamping the bit in position. The upper end of the socket 1 is formed with an integral extension 3, formed on one face with ratchet-teeth 4, which interlock with similar teeth on the head 5 of the arm 6. The extension 3 of the socket and the head 5 of the arm 6 are formed with registering openings, through which extends a thumb-screw 7, held in position by a butterfly-nut 8.

The arm 6 is adjustably connected to an arm 9, the latter being grooved throughout its length to receive the arm 6 and formed at its upper end with a serrated head 10, which is adapted to engage a corresponding head 11, depending from the handle 12. The arms 6 and 9 are each formed with an elongated slot 13, through which extends a thumb-screw 14, held by a nut 15.

The ratchet-faced heads 10 and 11 are connected adjustably by thumb-screws 16, provided with butterfly-nuts 17.

The handle 12 is provided at its upper end with a serrated extension 18, which is engaged by a correspondingly-serrated head 19, formed integral with an arm 20, to which is slidably secured an arm 21, said arms 20 and 21 having a tongue-and-grooved connection and being provided with elongated slots 22, through which extends a thumb-screw 23, provided with a nut 24.

25 designates the handle or breast-piece of the brace, which is secured to the arm 20 by the interlocking serrated heads 26 and 27, formed, respectively, on the upper end of the arm 20 and the lower end of the handle 25.

The coacting interlocking serrated heads constitute rosette-joints, which permit a wide range of adjustment, and the sliding connection of the arms permits the latter to be adjusted longitudinally to lengthen or shorten the distance between the handle 12 and the bit-socket 1 or between said handle 12 and the upper handle or breast-piece 25. The tongue-and-grooved joints between the sliding arms are of angular shape in transverse section, and thus provide a very rigid connection.

In Fig. 3 the brace is so adjusted that the arms 20 and 21 are in horizontal position and in parallel relation to the lower arms 6 and 9, and in this embodiment of the invention the handle portion 25 is provided with an arm 28, at the outer end of which is a knob 29, serving as the breast-piece. The opposite end of the arm 28 is provided with a ring 29^a, which fits over the upper end of the handle 25 and is secured in position thereon by a washer 30 and nut 31, which engage the upper threaded end of the stem 32 of the handle.

The utility and operation of the device constructed as above described will be readily understood.

The slotted arms 20 and 21 and the arms 6 and 9 may be readily shortened or lengthened as the character of the work to be done may require, and as will be apparent the brace may be adjusted to a great variety of shapes and positions, the adjustable rosette connections serving to firmly secure the parts in their adjusted positions.

I claim—

1. A bit and an auger brace comprising a bit-socket having an extension formed with ratchet-teeth, a breast-piece having an extension formed with ratchet-teeth, a handle hav-

ing extensions formed with ratchet-teeth, a pair of slotted and adjustable arms each having a head formed with ratchet-teeth and adjustably secured to the bit-socket extension and a handle extension respectively, a pair of slotted and adjustable arms each having heads formed with ratchet-teeth and adjustably secured to the breast-piece extension and a handle extension respectively; and means whereby the parts are adapted to be fixed together either in alinement or at an angle to each other.

2. A bit and an auger brace comprising a bit-socket having an extension formed with ratchet-teeth, a breast-piece having an extension formed with ratchet-teeth, a handle having extensions formed with ratchet-teeth, a pair of slotted and adjustable arms having a tongue-and-grooved joint of angular shape in transverse section and having a head formed with ratchet-teeth and adjustably secured to the bit-socket extension respectively, a pair of slotted and adjustable arms having a tongue-and-grooved joint of angular shape in transverse section and each having a head formed with ratchet-teeth and adjustably secured to the breast-piece extension and a handle extension respectively, and bolts and nuts whereby the parts are adapted to be fixed together either in alinement or at an angle to each other.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE S. ROSE.

Witnesses:
G. H. GAY,
J. B. HUBERT.