

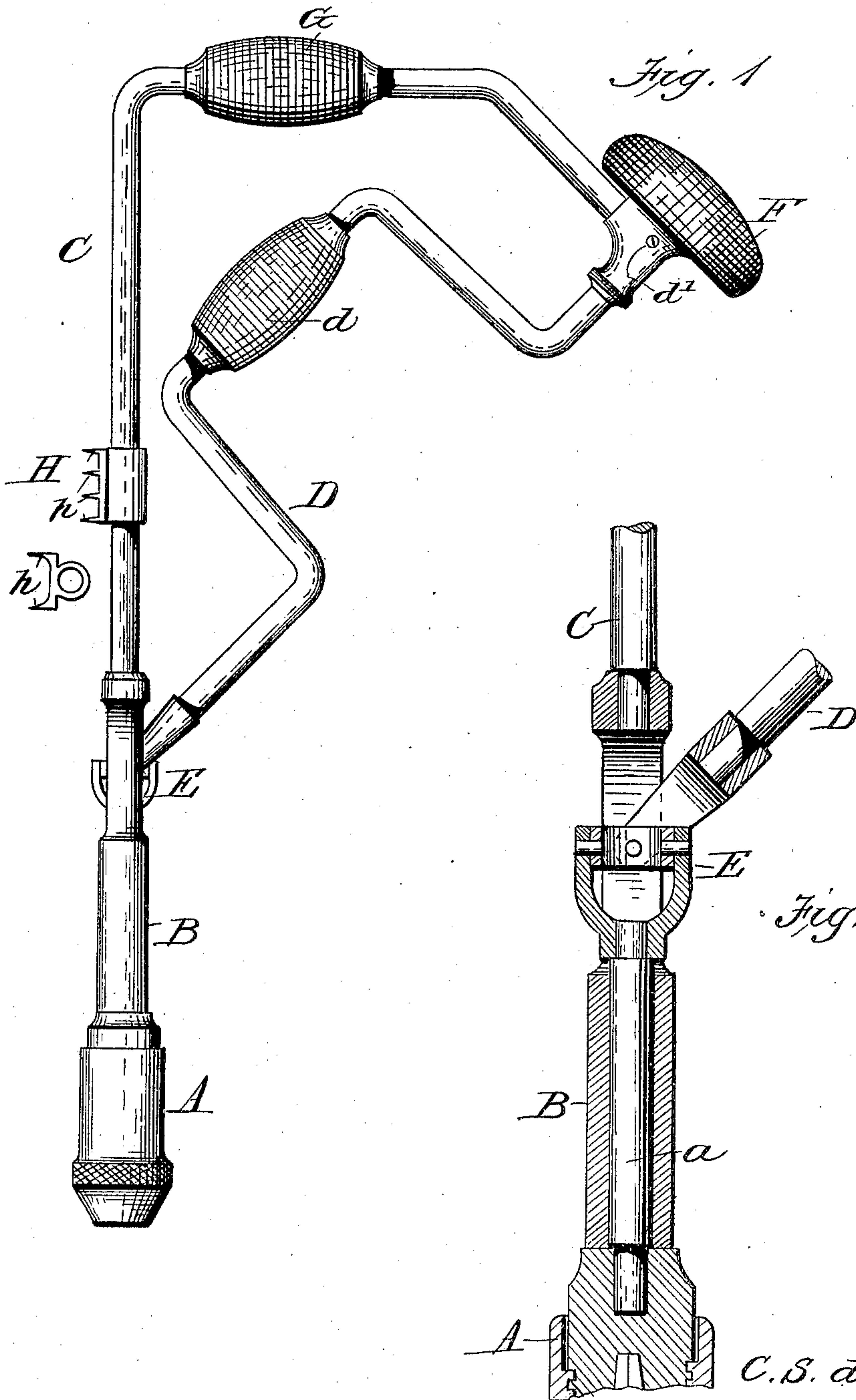
No. 682,263.

Patented Sept. 10, 1901.

C. S. DU MONT.
BIT BRACE.

(Application filed May 15, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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BIT-BRACE.

SPECIFICATION forming part of Letters Patent No. 682,263, dated September 10, 1901.

Application filed May 15, 1901. Serial No. 60,351. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. DU MONT, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Bit-Braces; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a bit-brace in which the brace-socket is arranged at an angle to the axis of the crank for the purpose of enabling the bit-brace to be used for drilling holes in close proximity to a wall or other obstruction which does not permit the crank to be turned when its axis is in line with the bit-socket.

The object of the invention is to provide a bit-brace of this character which shall be simple of construction, durable in use, and comparatively inexpensive of production, provision being made for the direct attachment of the bow-frame to a metal casting which supports the head instead of attaching the bow-frame to the head, which usually being made of wood oftentimes splits and renders it necessary to lay aside the tool until the head is replaced, and by this provision the operator is permitted to freely and firmly grasp the head, which would not be the case were the end of the bow-frame secured thereto.

A further object of the invention is to provide the bow-frame with a handle which enables the operator to obtain a secure hold while operating the tool.

A still further object of the invention is to provide the bow-frame with a "crab" or support to steady the tool and hold it in a straight line while boring.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved bit-brace, and Fig. 2 is a fragmentary vertical sectional view.

Referring to the drawings, A represents the

bit-socket, which may be of any ordinary or suitable construction and which is secured to the end of a shank *a*, which turns in the bearing B.

C is an angular bow-frame which is attached at one end to the bearing B and serves to support the movable parts of the brace.

D is a crank provided with a handle *d* in the usual manner. The crank D is composed of a bent rod, one end of which is connected with the upper end of the shank *a* by a universal joint E, whereby the rotary movement of the crank is transmitted to the shank *a* and the bit-socket A. The opposite end of the crank D turns in an angular tubular casting *d'*, which is provided with a head F. The said casting receives the upper end of the bow-frame C. The attachment of the bow-frame to the casting instead of to the head is a decided improvement over devices of a similar nature in which the frame is attached to the head in that, first, the operator may more readily and conveniently grasp the head, and, secondly, should the head split the efficiency of the tool would not be seriously impaired, as would be case were the frame C attached to the head. The bow-frame may be provided with a handle or grip G, and for the purpose of steadying the tool a crab or support H may be employed which is formed with embedding points or prongs *h*, which are adapted to bury in the wall, ceiling, or other object. As the tool is operated it is of course understood that the bow-frame slides freely through said crab or support.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a bit-socket, and a crank having its axis arranged at an angle to the bit-socket, of mechanism whereby the

rotary motion of the crank is transmitted to the bit-socket, a head, a casting connecting the head to the crank, and an angular bow-frame having its upper end connected to the
5 casting and its lower end connected to the bit-socket whereby the bit-socket and crank are retained in their relative positions, substantially as set forth.

2. The combination with a bit-socket, and
10 a crank having its axis arranged at an angle to the bit-socket, of mechanism whereby the rotary motion of the crank is transmitted to the bit-socket, a head, a casting connecting the head to the crank, and an angular bow-
15 frame having its upper end connected to the casting and its lower end connected to the bit-socket whereby the bit-socket and crank are retained in their relative positions, said angular bow-frame being provided with a
20 handle, substantially as set forth.

3. The combination with a bit-socket, and

a crank having its axis arranged at an angle to the bit-socket, of mechanism whereby the rotary motion of the crank is transmitted to the bit-socket, a head, a casting connecting
25 the head to the crank, and an angular bow-frame having its upper end connected to the casting and its lower end connected to the bit-socket whereby the bit-socket and crank are retained in their relative positions, and
30 a "crab" or support having gripping-prongs and mounted upon the angular bow-frame to steady the same and permit of the movement of said bow-frame through said "crab" or support, substantially as set forth. 35

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES S. DU MONT.

Witnesses:

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