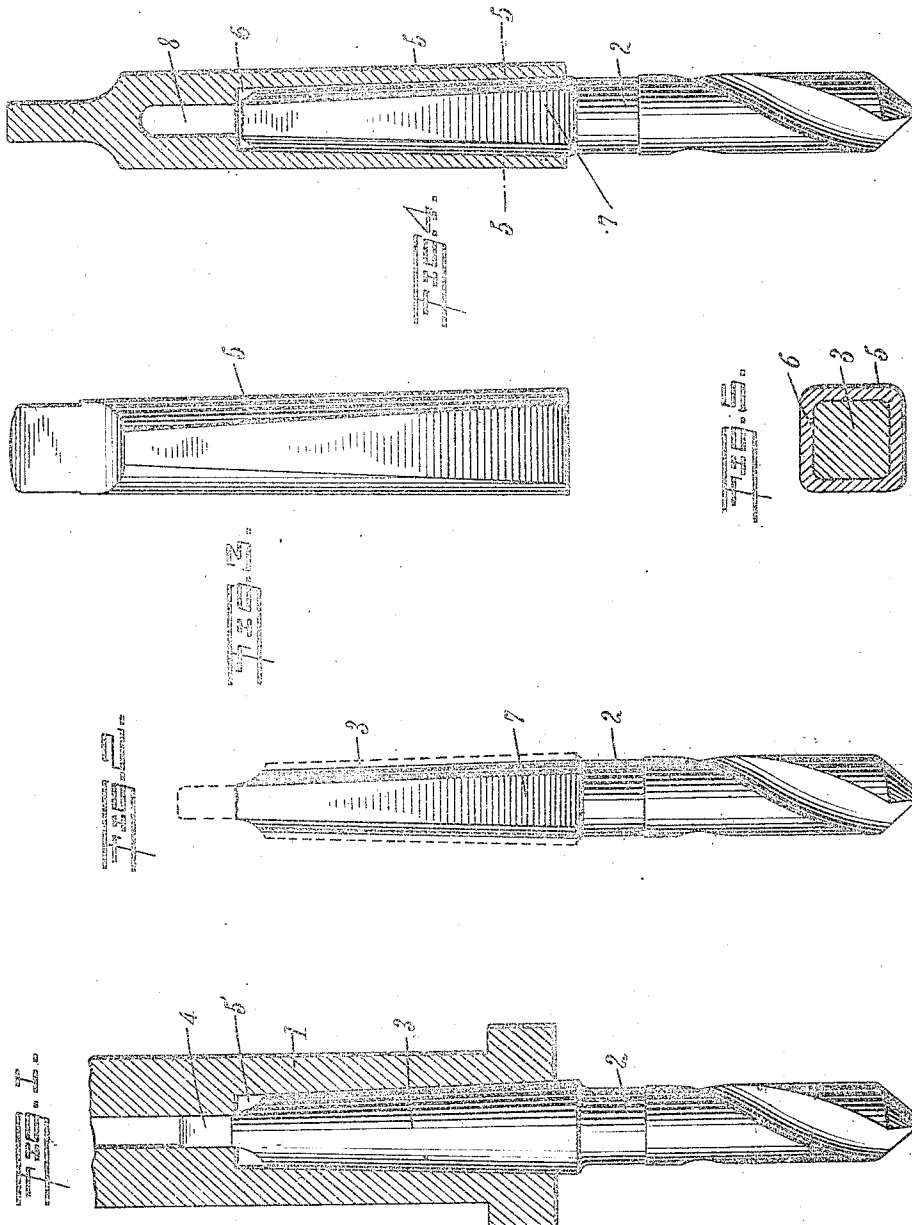


A. J. BOONE.
BEVELED DRILL SOCKET.
APPLICATION FILED MAR. 2, 1912.

1,052,309.

Patented Feb. 4, 1913.



WITNESSES
G. Robert Thomas
A. L. Kitchen.

INVENTOR
Aaron J. Boone
BY *Wm. Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

AARON J. BOONE, OF ALMEDIA, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO EUGENE L. DUDEN AND ONE-FOURTH TO CLARENCE E. DUDEN, BOTH OF HOBOKEN, NEW JERSEY.

BEVELED DRILL-SOCKET.

1,052,309.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed March 2, 1912. Serial No. 681,110.

To all whom it may concern:

Be it known that I, AARON J. BOONE, a citizen of the United States, and a resident of Almedia, in the county of Columbia and State of Pennsylvania, have invented a new and Improved Beveled Drill-Socket, of which the following is a full, clear, and exact description.

This invention relates to improvements in drill sockets, and has for an object the provision of an improved structure designed to receive the shanks of drills regardless of whether or not the same have tangs associated therewith.

A further object of the invention is to provide a tapering socket formed square or irregular in cross section for receiving a correspondingly shaped shank.

In carrying out the objects of the invention, a socket is provided which may be square or hexagonal, or other similar shape, and which is beveled or tapered longitudinally so as to fit the usual taper of drill shanks. A tang-receiving socket portion is also provided which is designed to receive the usual tang of the drill if the same has not been broken off. If the tang has been broken off the socket will properly hold the drill after the shank thereof has been squared.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal vertical section through a drill socket of the ordinary construction having a round socket and a tang-receiving slot; Fig. 2 is a side view of a drill with the tang broken and with the shank squared, the shank retaining its usual tapered shape; Fig. 3 is a side view of the socket formed according to the present invention; Fig. 4 is a longitudinal vertical section through the socket shown in Fig. 3, the drill disclosed in Fig. 2 being fitted therein; and Fig. 5 is a section through Fig. 4 on the line 5-5.

Referring to the accompanying drawings by numerals, 1 indicates the ordinary socket

heretofore used, and 2 the ordinary drill heretofore used, having a round shank 3 and a tang 4. The shank 3 is adapted to fit into a tapering aperture in the socket member 1.

In practical operation, the tang 4 often breaks and when this occurs the drill 2 is of no further use, as the same cannot be held by the socket 1. By providing a socket 5 according to the present invention, having a squared socket portion or bore 6, the drill 2 may be properly fitted therein after being provided with squared portions 7.

As clearly shown in Fig. 4, the socket 5 by having a bore 6 tapering similar to the bore 5' of the structure shown in Fig. 1, and also squared, as more clearly shown in Fig. 5, the same will firmly hold the drill 2 against independent rotation.

It will of course be evident that the drill 2, before the tang 4 has been broken, could be used in a socket 5 by merely squaring the same, a notch 8 accommodating the tang. By this construction of socket the drill may be used either with or without the tang and may be used to the extreme limit of the twisted part of the drill.

In the drawings the socket 5 has been squared, but it will be evident that hexagonal or other shaped sockets could be provided without departing from the spirit of the invention, the squared or flattened portion 7 being formed to register or co-act therewith.

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

In a socket of the class described, a body portion formed with a tapering bore substantially square in cross section, and a tang-receiving notch merging into one end of the bore.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AARON J. BOONE.

Witnesses:

HARRY M. TROWBRIDGE.
ARIS H. EVERETT.