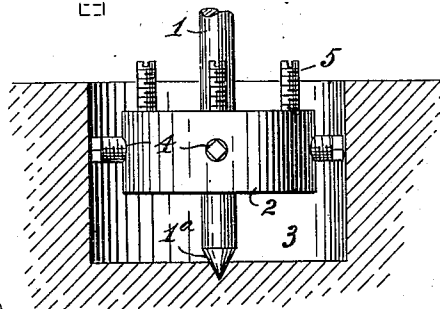
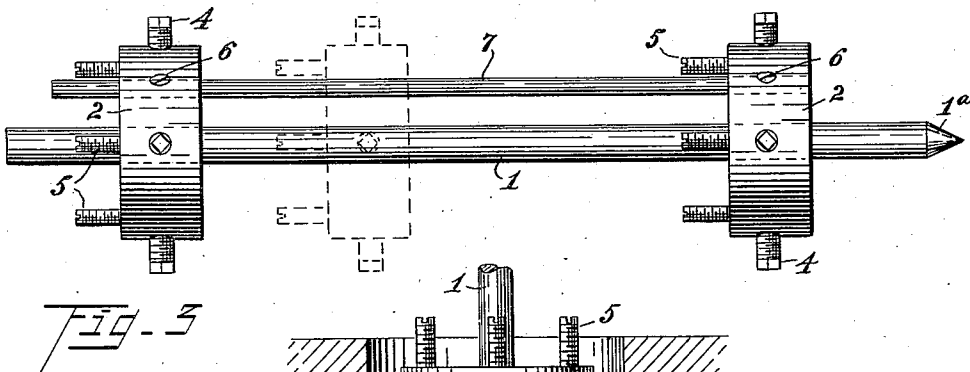
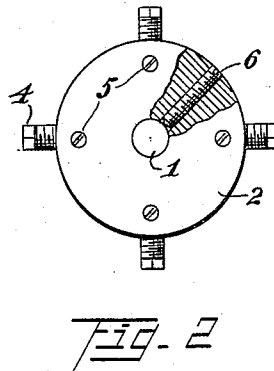
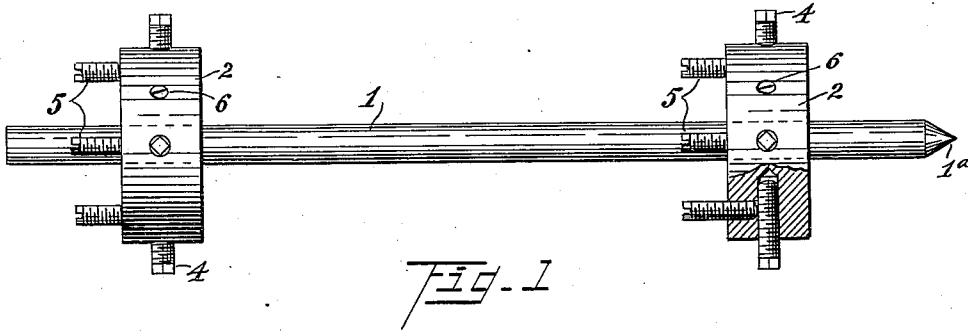


J. RICHTER.
CENTER PUNCH.

APPLICATION FILED JULY 21, 1911.

1,017,469.

Patented Feb. 13, 1912.



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JULIUS RICHTER, OF FORD CITY, PENNSYLVANIA.

CENTER-PUNCH.

1,017,469.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed July 21, 1911. Serial No. 639,768.

To all whom it may concern:

Be it known that I, JULIUS RICHTER, a citizen of the United States, residing at Ford City, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Center-Punches, of which the following is a specification.

My invention relates to improvements in center punches, and more particularly to that class or type designed for use in obtaining and indicating the center or starting point in a round or angular shaped opening or socket where it is desired to bore out or form a reduced concentric opening therein.

The primary object of the invention is to provide a generally improved center punch of the class indicated, of exceedingly simple, cheap, and efficient construction, well adapted to the purposes for which it is designed.

With the above-mentioned and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in some of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1, is a side elevation of the improved center punch. Fig. 2, a top plan view of the same. Fig. 3, a side elevation of a modified form of same. Fig. 4, a view illustrating the application of the improved tool.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved center punch comprises a punch member 1, which may be of the usual form, and provided with the usual conical shaped point 1^a. The punch member is adapted to be centered and held in proper position by means of a guide block 2, preferably of round or circular form and provided with a centrally located opening for the reception of the punch member 1.

As a means for centering and adjusting the guide block 2, whereby the latter is

adapted to conform to the size of the socket opening or recess 3, as illustrated in Fig. 4, the guide block is provided with a plurality of internally threaded radially extending openings adapted to receive and contain a plurality of radially extending centering screws 4, said centering screws being adapted to be adjusted through suitable measurements to the size or diameter of the opening in which the improved tool is used, and when so adjusted to be secured in adjusted position by means of a plurality of retaining screws 5, arranged on the face side of the guide block and adapted to impinge upon the centering screws 4, (see Fig. 1) whereby the latter are retained in adjusted position.

If the improved center punch is to be used in a deep opening, a pair of guide blocks may be used, as indicated in Figs. 1, and 3, of the drawings, and if desired, said guide blocks may be moved and adjusted toward and from each other by means of adjusting screws 6, the latter being adapted to impinge upon the punch member 1, as illustrated in Figs. 1, and 2, of the drawings, or if desired, a separate guide bar or member 7, may be provided, as illustrated in Fig. 3, of the drawings. By the use of a separate guide bar or member 7, the guide blocks 2, may be readily moved toward and from each other as occasion may demand and be held in any desired adjusted position by means of the adjusting screws 6, thus permitting of the free movement of the punch member 1, and its ready insertion or removal without disturbing the adjustments of the guide blocks 2.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

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

1. A center punch, comprising a punch member, a guide bar, guide blocks adjustably mounted thereon, means for securing the latter in adjusted position on said guide

bar radially extending centering screws mounted in said blocks, and cap screws on the face sides of said blocks and impinging on said centering screws.

5 2. A center punch, comprising a punch member, guide blocks therefor, centering screws mounted thereon, retaining screws on the face sides of said blocks, and means for

supporting and adjusting said guide blocks in various positions relating to each other. 10

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

JULIUS RICHTER.

Witnesses:

A. R. GRAHAM,
JNO. THOS. MCGUIRE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."