July 24, 1923.

1,462,556

C. A. KROPP

DIE MOUNTING

Filed Feb. 10, 1922

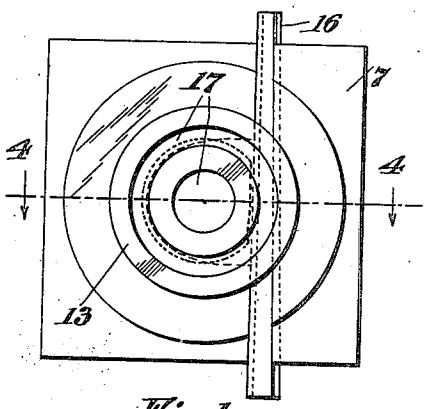


Fig. 1.

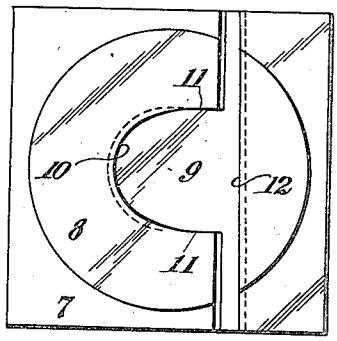


Fig. 2.

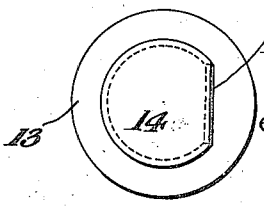


Fig. 3.

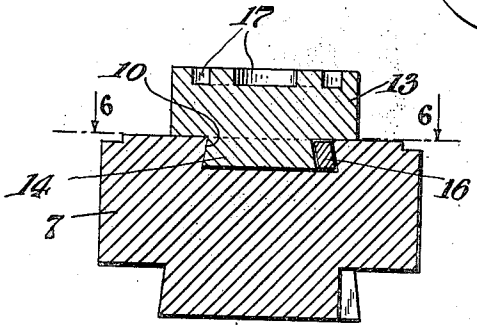


Fig. 4.

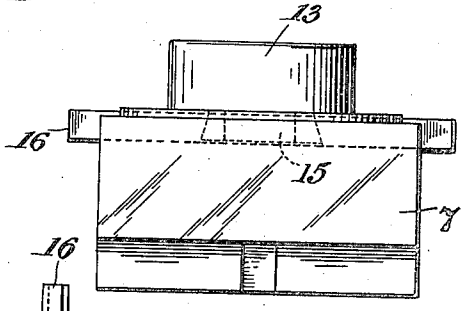


Fig. 5.

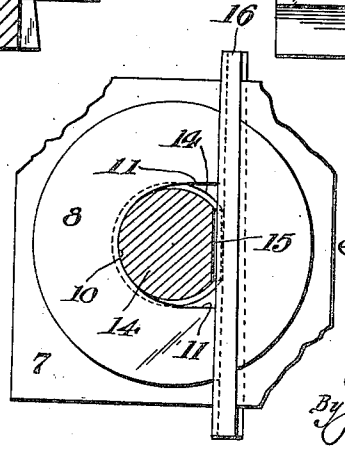


Fig. 6.

Witnesses:
Berthold Oblatt
B. G. Richards

Inventor
Charles A. Kropp
By Joshua R. H. Potts,
His Attorney

Patented July 24, 1923. 1,462,556

UNITED STATES PATENT OFFICE.

CHARLES A. KROPP, OF RIVER FOREST, ILLINOIS, ASSIGNOR OF ONE-THIRD TO ALFRED NORDSTROM, OF BERWYN, ILLINOIS, AND ONE-THIRD TO ROY A. KROPP, OF RIVER FOREST, ILLINOIS.

DIE MOUNTING.

Application filed February 10, 1922. Serial No. 535,483.

To all whom it may concern:

Be it known that I, CHARLES A. KROPP, a citizen of the United States, and a resident of the city of River Forest, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Die Mountings, of which the following is a specification.

My invention relates to improvements in die mountings, especially adapted for use on drop hammers, punch presses and the like, and has for its object the provision of an improved construction of this character by means of which dies for such machines may be economically manufactured and readily and securely mounted on such machines.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 is a top plan view of a construction embodying the invention;

Fig. 2 is a top plan view of the die holder employed in said construction;

Fig. 3 is a bottom plan view of the die body illustrated in Fig. 1;

Fig. 4 is a transverse section taken on line 4—4 of Fig. 1;

Fig. 5 is a side view of the construction; and

Fig. 6 is a horizontal section taken on line 6—6 of Fig. 4.

The preferred form of construction as illustrated in the drawings comprises a die holder 7, the body of which is of any usual or desired construction for mounting in a drop hammer, punch press or the like. The upper surface of the body 7 is provided with a finished surface 8 adapted and arranged to constitute a seat for the die body, and a substantially semi-circular socket 9 is arranged substantially centrally of the surface 8. The circular side 10 of the socket 9 is undercut or beveled as shown, and the portions 11 of the walls of said socket formed vertical, a tapering inclined keyway 12 being cut in the body 7 traversing the side of the socket 9 opposite the under cut wall 10. The die body 13 is provided with a flaring stem 14 arranged to fit between the walls 11 and flared to nicely fit the undercut wall 10. The side 15 of the stem 14 is flattened and beveled to correspond to and register with the corresponding side of the keyway 12. The under surface of the die body 13 is nicely finished to rest upon the surface 8 and the bottom of the stem 14 is nicely finished to rest upon the bottom of the socket 9. A tapering or wedge-shaped key 16 is fitted into the socket 12 to contact as shown with the flattened side 15 of the stem 14 for holding said stem and said die body in place. The die body 13 may be provided with any desired form of die 17, the one indicated being a die for a gear blank, as will be readily understood.

By this arrangement the die body may usually be made of circular stock or material to be finished in a lathe, which greatly facilitates the process of manufacture and the economical production thereof. A firm and secure seat and support is also provided for the die body whereby movement thereof under the heavy strains incident to use is prevented. Likewise there is and can be no strain or pressure upon the locking key so that it is impossible for the die to work loose in use. The form of construction illustrated is one capable of very economical manufacture and production, from a minimum of stock. The specific form and arrangement of parts illustrated is a simple and effective one for the purpose.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A die mounting comprising a body provided with a stem; a holder having a socket therein somewhat larger than said stem to permit direct insertion of said stem and lateral movement of said stem in said socket, the walls of said socket and the sides of said stem being arranged to engage with each other upon lateral movement of said stem in said socket; and means for securing

said stem in said socket in interlocking relation with the walls thereof, substantially as described.

2. The combination with a die body provided with a circular stem having a flattened side, of a holder having a substantially semi-circular socket therein, said stem being adapted and arranged to be inserted in said socket and engage therewith by lateral movement therein; and means engaging the flattened side of said stem for locking the same in said socket, substantially as described.

3. A die mounting comprising a holder having a substantially semi-circular socket therein and a key way traversing the flat side of said socket; a die body provided with a substantially circular stem having a flattened side fitting into said socket and engaging therewith by lateral movement therein; and a key insertable in said key way and engaging the flattened side of said stem to secure the stem in said socket, substantially as described.

4. A die mounting comprising a holder having a substantially semi-circular socket therein, the circular portion of said socket being under cut, there being a key way traversing the flat side of said socket; a die body provided with a substantially conical stem fitting within said socket and having a flattened side; and a wedge shaped key insertable in said key way and engaging the flattened side of said stem to secure the same in said socket, substantially as described.

5. A die mounting comprising a holder having a socket therein, the one side of the wall of said socket being undercut and a keyway traversing the other side of said socket, the intermediate walls of said socket being straight; a die body provided with a stem adapted to fit between said straight walls of said socket, said stem being flared to fit the undercut wall of said socket, the side of said stem corresponding with said keyway being beveled; and a wedge-shaped key insertable in said keyway and engaging the bevelled side of said stem to secure the same in said socket, substantially as described.

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

CHARLES A. KROPP.

Witnesses:

ALFRED NORDSTROM,

BRAYTON G. RICHARDS.