

A. M. REMINGTON.
METHOD OF FORMING TOOL HOLDING SOCKETS.
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966,952.

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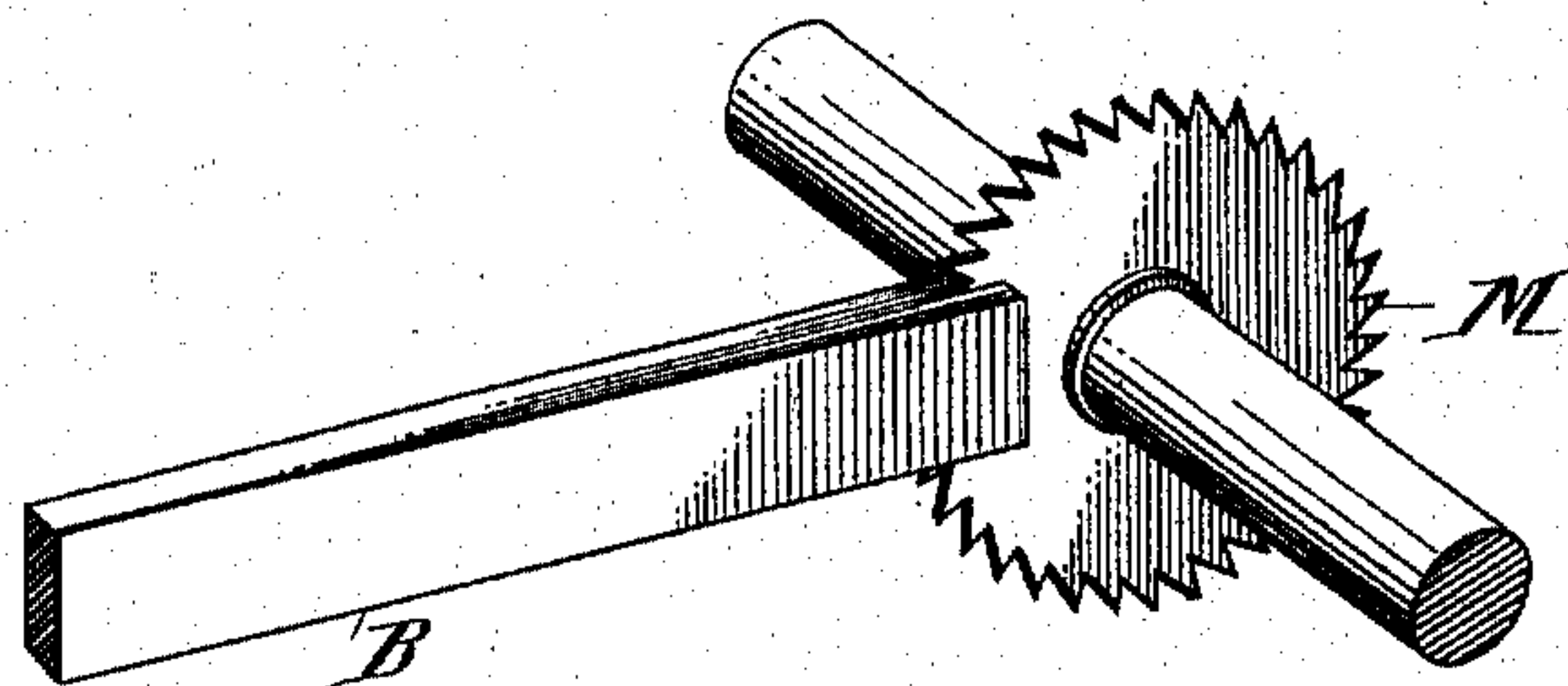


FIG. 1.

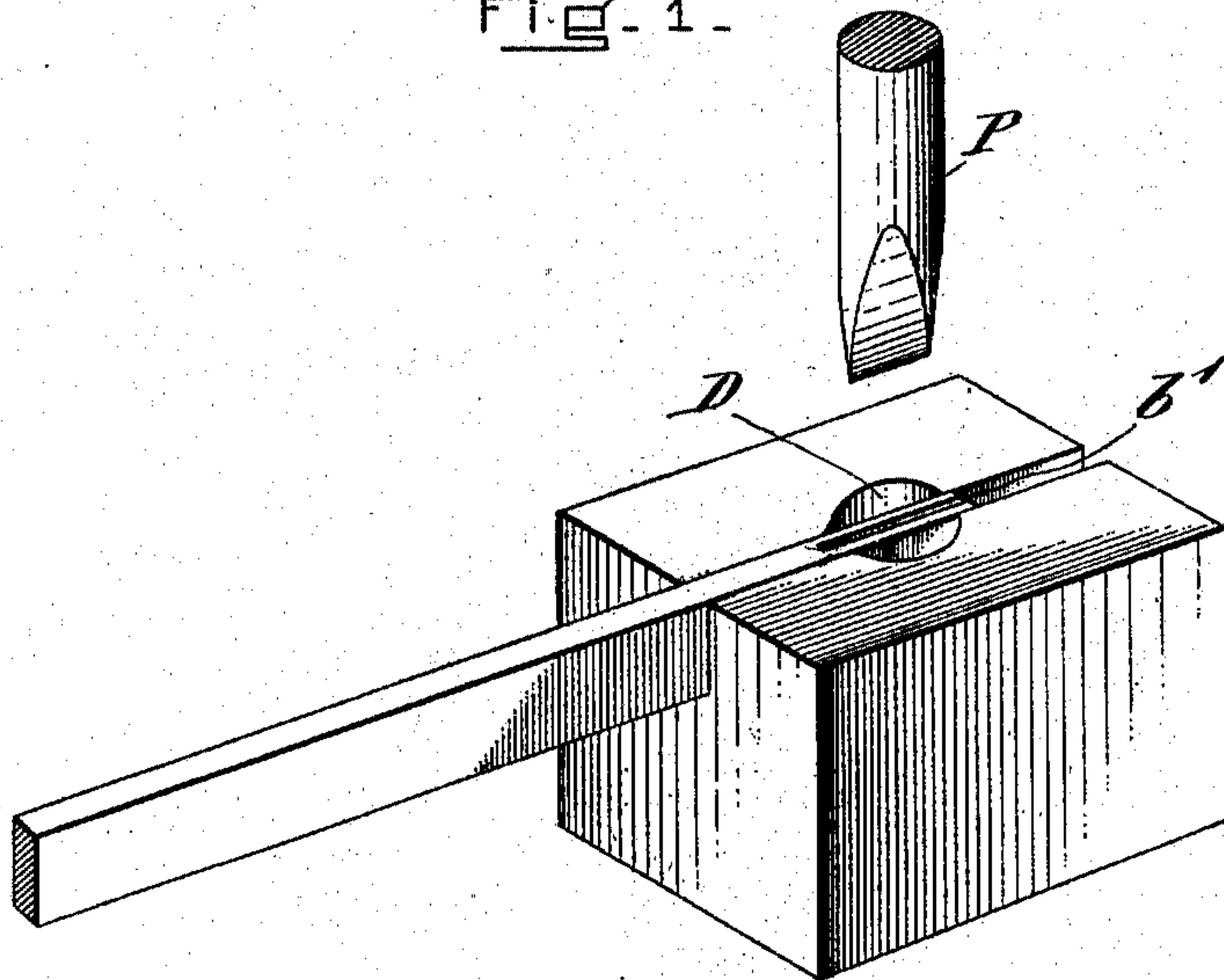


FIG. 2.

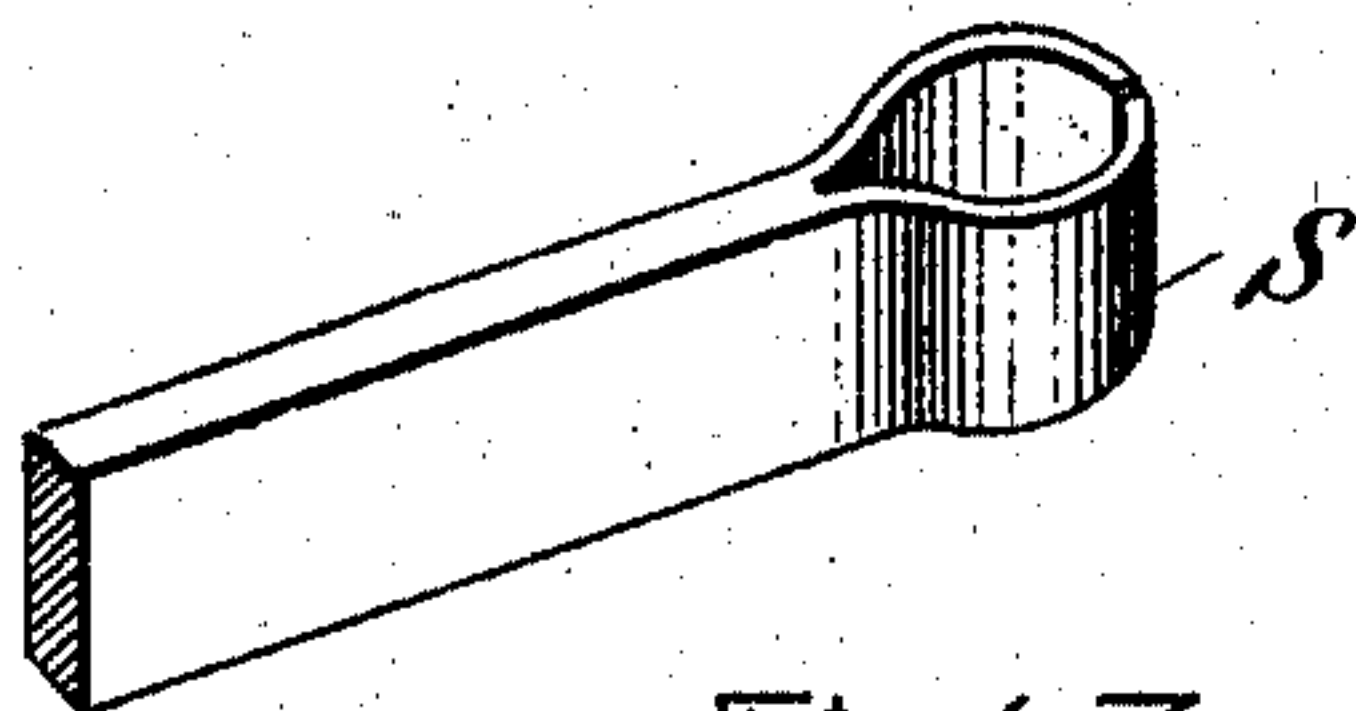


FIG. 3.

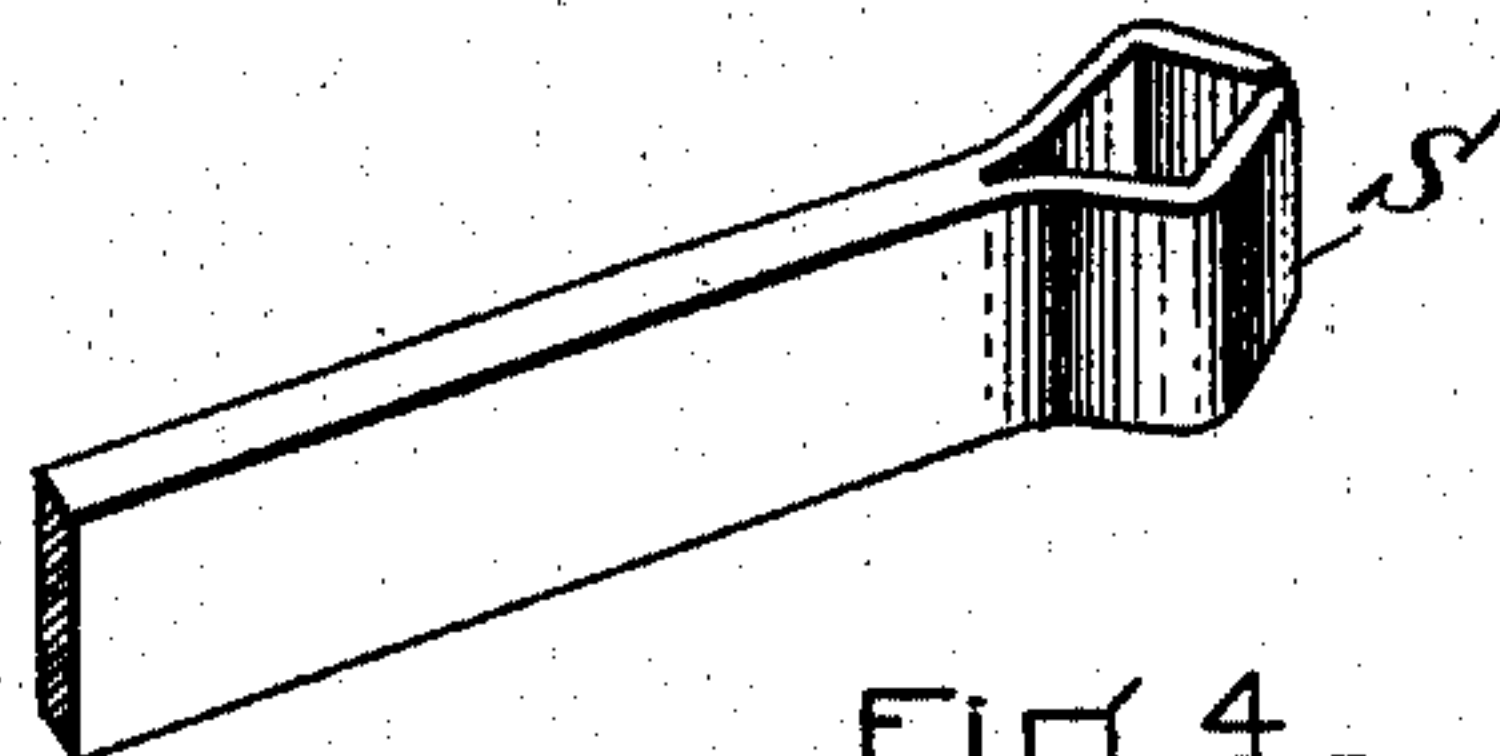


FIG. 4.

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ALFRED M. REMINGTON, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR TO SIMONDS MANUFACTURING COMPANY, OF FITCHBURG, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

METHOD OF FORMING TOOL-HOLDING SOCKETS.

966,952.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALFRED M. REMINGTON, a citizen of the United States of America, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented an Improved Method of Forming Tool-Holding Sockets, of which the following is a specification.

The invention relates to the method of forming sockets in the ends of strips or bars of metal for holding tools, and consists in slitting or forming a kerf in the end of the bar, inserting the slitted end into a die and spreading the two portions therein by the pressure of a plunger of a shape corresponding in cross-section to the interior of the die, although smaller, which plunger is forced into the slit until the two portions are caused to conform to the shape of the die. Heretofore such sockets have been formed by a forging process, or the socket has been bored out in the end of a solid bar; which methods are relatively much more expensive than my improved method, which may be practiced upon unheated metal, and I have found it especially useful in forming sockets in the ends of frames for saws such as hack or butchers' saws.

In the drawings forming a part of this specification, is illustrated the several steps in the method and the tools which may be employed in practicing it, wherein—

Figure 1 illustrates a saw or mill as one means for slitting or forming a kerf in the ends of the bars; Fig. 2 a perspective view of the slitted bar inserted in a die of cylindrical shape with a spreading plunger above it; Fig. 3 is a perspective view of a cylindrical substantially closed socket in the end of a bar after it has been formed by pressure within the die; Fig. 4 is a perspective view of another socket formed with a rectangular cross-section instead of cylindrical.

Referring to the drawing by letters, B is the bar or strip to be slitted, M the saw or mill for performing the slitting operation.

D is the die, cylindrical in this instance, with the slitted end *b'* of the bar inserted therein, the metal at the open end of the kerf being confined by walls of the die as shown, and being thus retained against substantial spreading; P is the plunger with a wedge shaped end *w* for spreading or expanding the two parts of the slitted end of the bar

intermediate the ends of the kerf and pressing them outward until they conform to the shape of the die, the diameter of the plunger being enough smaller than that of the interior of the die to accommodate the thickness of the metal of one part of the slitted end of the bar B; S is a socket after it has been formed in a cylindrical die by a cylindrical plunger shown in Fig. 3, and in Fig. 4 a socket is shown formed in a die of rectangular cross-section, by a plunger of similar cross-section.

In the practice of this method the end of the bar is slitted to an accurate depth equal to one half of the circumference or perimeter of the interior of the socket to be formed, and when this slitted end is inserted in the die, the plunger is forced between the slitted ends transversely of their length and intermediate the ends of the kerf, thus forcing them outward until they conform to the shape of the die and the two ends of the slitted portion are brought substantially into contact, thereby forming a practically continuous eye or socket without welding.

I claim:

1. The method of making a substantially closed tool handle socket or holding device which consists in cutting a kerf in a metal body piece and spreading the walls of the kerf intermediate of the ends of the kerf while retaining against any substantial spreading of the metal at the open end of the kerf.

2. The method of making closed tool handle sockets having a cross section the shape of a plane figure which consists in forming in the end of a metal body piece a kerf of a dimension equal to one-half the perimeter of the plane figure of the transverse cross section of the tool socket, and thereafter placing said kerf end of the metal body piece into a die having confining walls the shape of the said plane figure of cross section of the socket and expanding the jaws of the kerf until they contact with the walls of the socket and until the edges of the kerf abut each other.

ALFRED M. REMINGTON.

Witnesses:

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