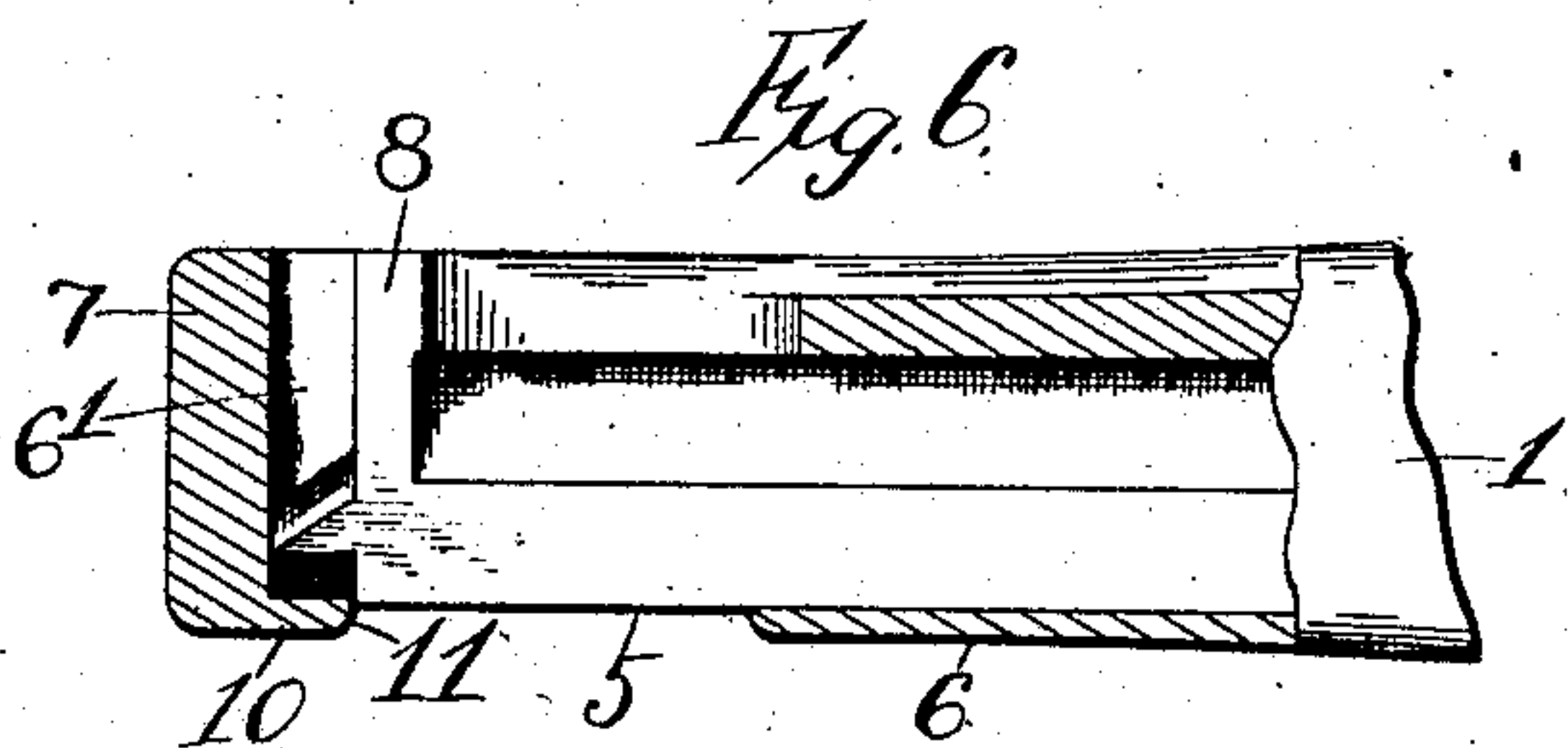
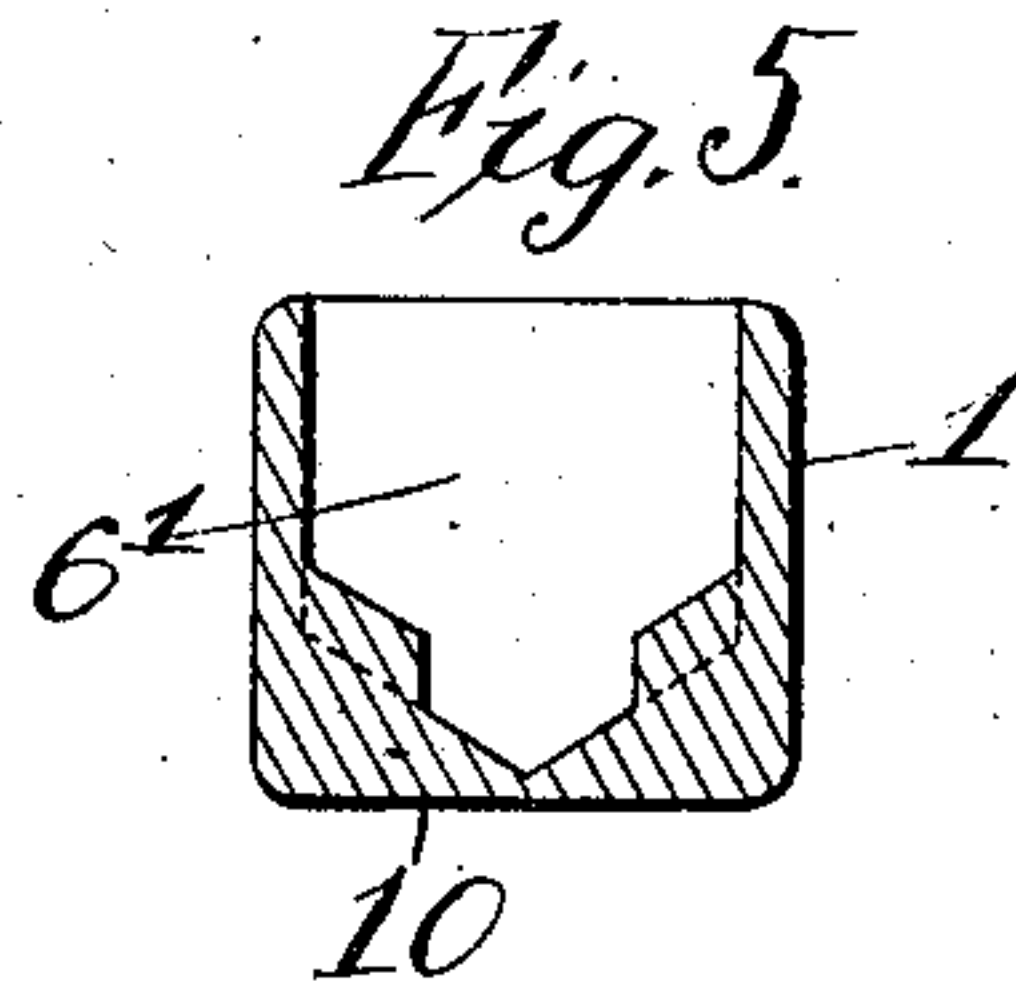
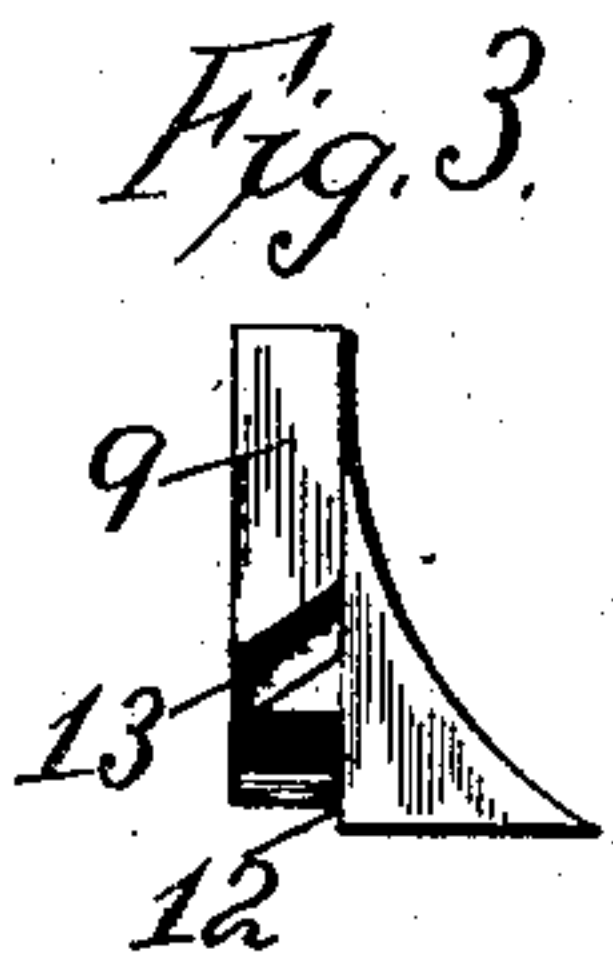
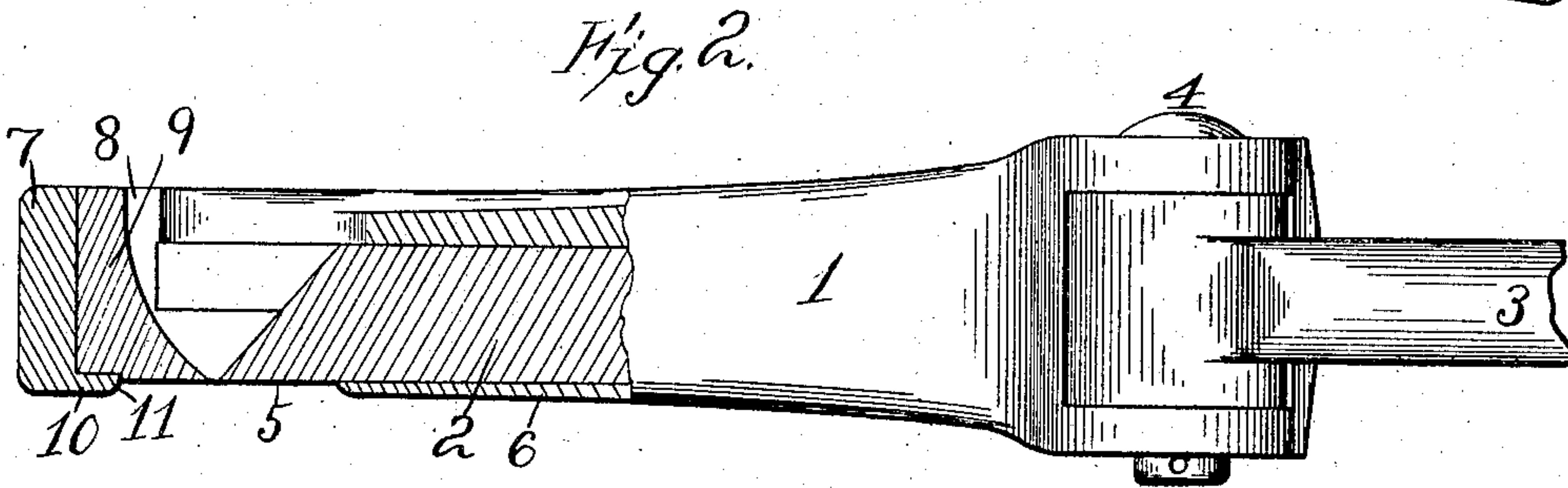
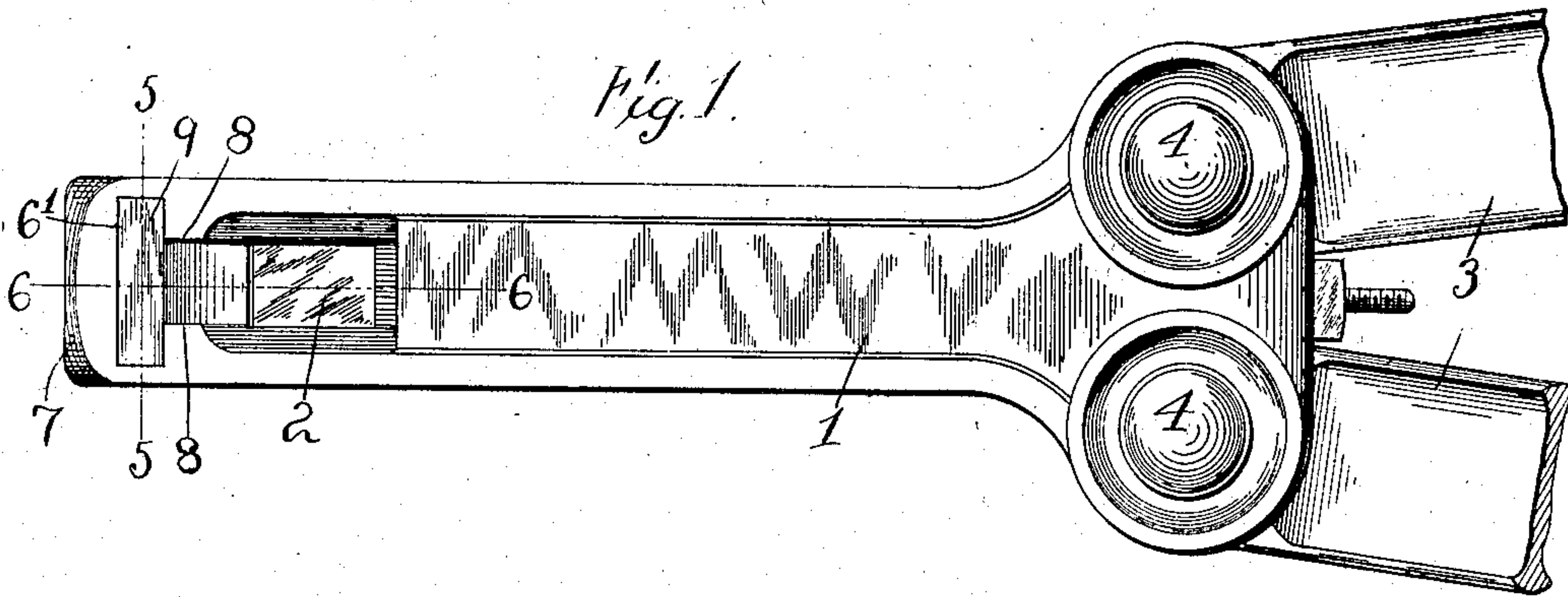


907,936.

Patented Dec. 29, 1908.



Attest
Bent. M. Stahl,
Edward N. Sartor.

Inventor
W. Woolgar
By Spear, Middleton, Donaldson & Spear,
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM WOOLGAR, OF SAGINAW, MICHIGAN.

BOLT-CUTTER.

No. 907,936.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed August 20, 1908. Serial No. 449,529.

To all whom it may concern:

Be it known that I, WILLIAM WOOLGAR, a citizen of the United States, residing at Saginaw, Michigan, have invented certain new and useful Improvements in Bolt-Cutters, of which the following is a specification.

My invention relates to bolt and rivet cutters, my object being to provide a strong construction at the cutting head to sustain the thrust of the knives, and one which will be of light weight and small in size, so that the cutter may be used in a large variety of positions and under various conditions.

The invention consists in the features, combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings—Figure 1 is a plan view of the cutter. Fig. 2 a longitudinal sectional view through a part thereof. Fig. 3 is a side view of the fixed cutting knife. Fig. 4 is a rear view of the same. Figs. 5 and 6 are sectional views on lines 5—5 and 6—6.

In these drawings, 1, indicates the frame of the cutter within which slides a movable knife 2, this knife being operated through suitable connections with the hand levers 3 which are pivoted to the frame at 4. The knife is beveled on its upper side and its lower face or cutting edge works substantially in the plane of the lower edge of the frame at the point 5 where this frame is recessed. The frame is formed with an under wall at 6, which terminates at the recess.

The fixed knife is supported in the head of the frame in a socket 6', and this socket is formed by an end wall 7 of the head, of the inwardly extending shoulders 8, which reach around in front of the shank 9 of the fixed knife, the bottom of the socket being formed by a flange or lip 10 cast with the head and extending beneath the fixed knife and terminating in an abrupt shoulder at 11, forming one side of the recess 5, above referred to.

The fixed knife is formed with an abrupt shoulder at 12 between its blade portion and its shank portion, this shoulder fitting down over the underlying edge of the lip casting above described. The blade portion of the knife lies in the same plane with the upper face of the recess 5 in the head, and thus in the same plane with the cutting edge of the movable knife. The fixed knife blade, like the movable knife blade is beveled on its upper side. The shank of the fixed blade is

provided with inclined shoulders 13 on its side edges which engage similarly inclined shoulders at the lower part of the socket of the head, which receives the fixed blade. Furthermore, as shown in the rear view, Fig. 4, the shank of the knife blade is of V-shape at its lower end and the bottom of the socket is correspondingly formed. By this formation of the knife blade and its shank, the fixed knife is centered and held accurately in position. It will be noticed that the casting of which the head is composed extends below the cutting level and under the shank of the fixed knife giving the head great strength at this point and enabling the apparatus to have greater power applied thereto. This portion of the head which reaches under the fixed knife shank and abuts against the rear of the fixed knife blade substantially in the plane of its cutting edge gives the knife greater power and strength beyond the cutting edge. By the construction of the head described, it may be made light and small without decreasing its strength, thus making it possible to operate the cutter in difficult positions. By means of the drop at the cutting head below the plane of the cutting edge, the device may be readily employed for cutting rivets of the proper length for heading. Further than this, the recess in the head enables the operator to quickly center the cutter over a rivet head for the purpose of cutting it off, the "drop formation of the head" acting to guide the same into position on the rivet.

I claim as my invention:

1. In a bolt cutter a movable knife, a fixed knife having a shoulder between its cutting blade and its back portion, a frame in which the movable knife works having a head for sustaining the fixed knife, said head having a socket to receive the fixed knife and having a portion integral therewith forming the bottom of the socket and extending below the plane of the cutting edge and engaging the shouldered portion of the fixed knife, substantially as described.

2. In combination in a bolt cutter, a movable knife, a fixed knife, a frame having a bottom portion underlying the movable knife and having a head for holding the fixed knife, said head having a portion extending below the plane of the cutting edge of the knives and below a part of the fixed knife, the said portion of the head and the bottom plate of the frame being in substantially the same plane and having a recess between them

to receive the rivet head or to determine the length of the rivet for heading, substantially as described.

3. In combination in a bolt cutter, a frame
5 having a head with a socket therein formed with a V-shaped bottom, and inwardly extending lugs with inclines at the lower parts of said lugs, and a fixed knife having a shank with inclines at the lower end of its side

edges and with an inclined bottom portion, 10 substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM WOOLGAR.

Witnesses:

LINCOLN E. BRADY,
CARL C. ROGERS.