

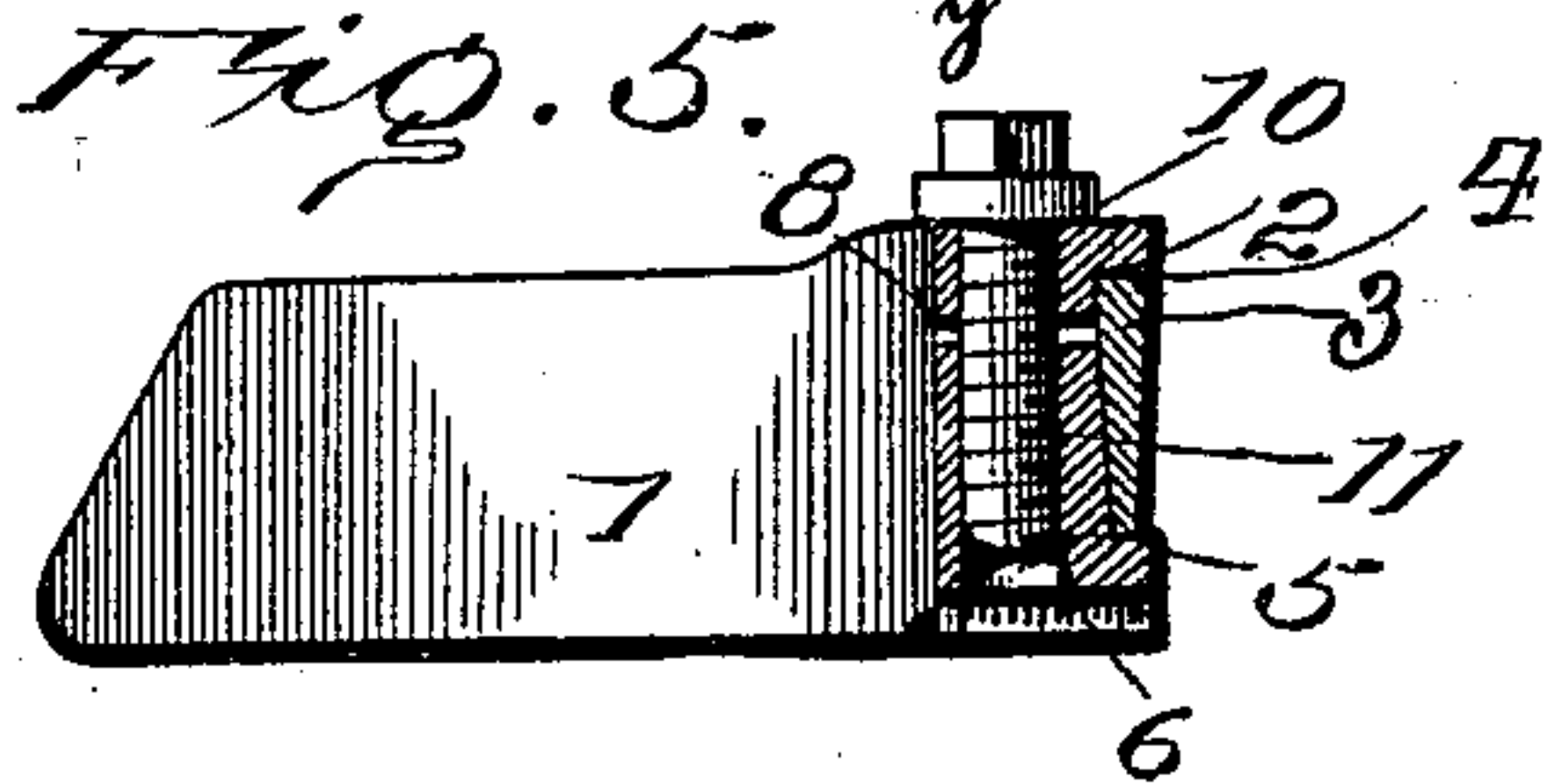
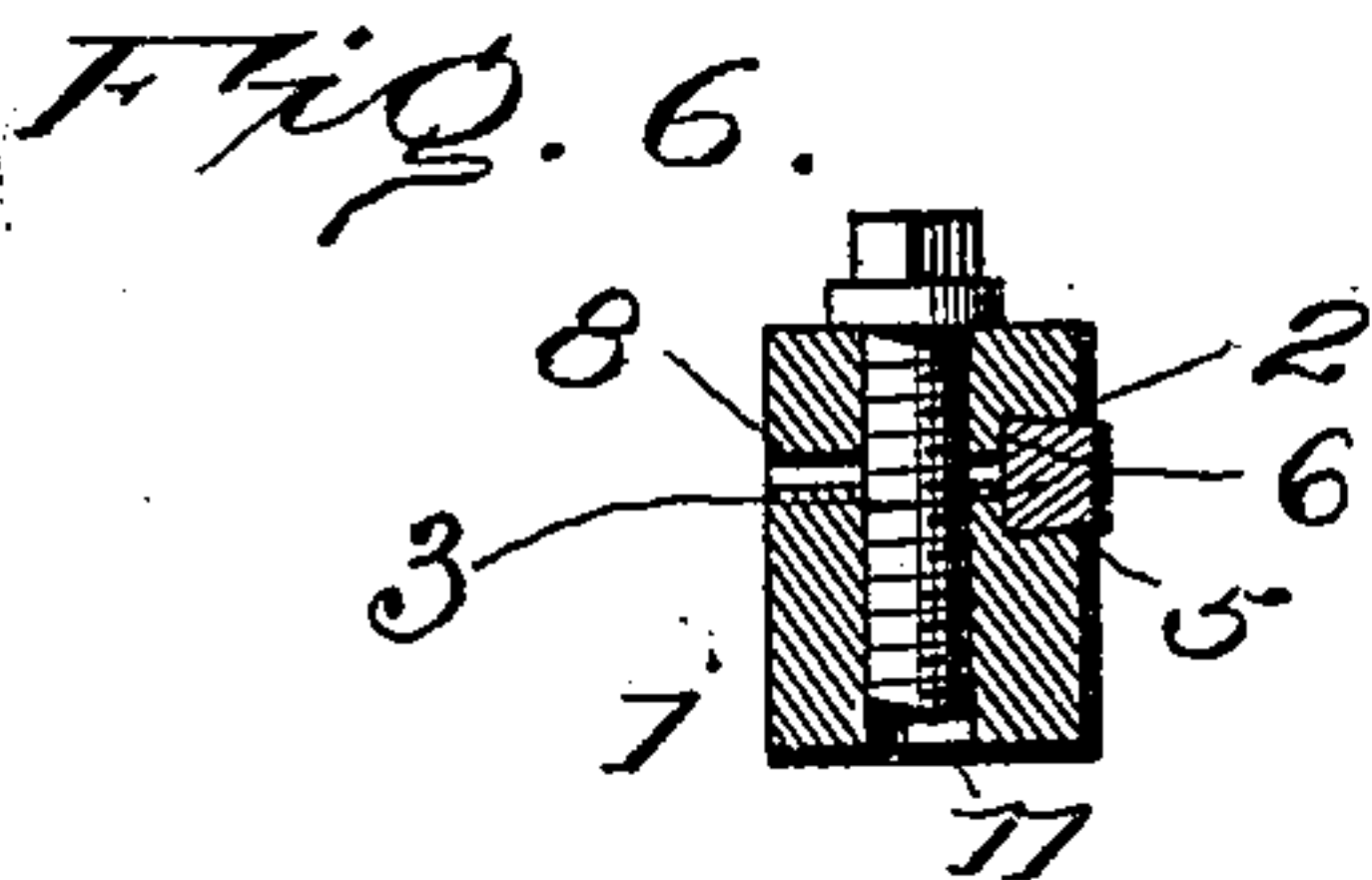
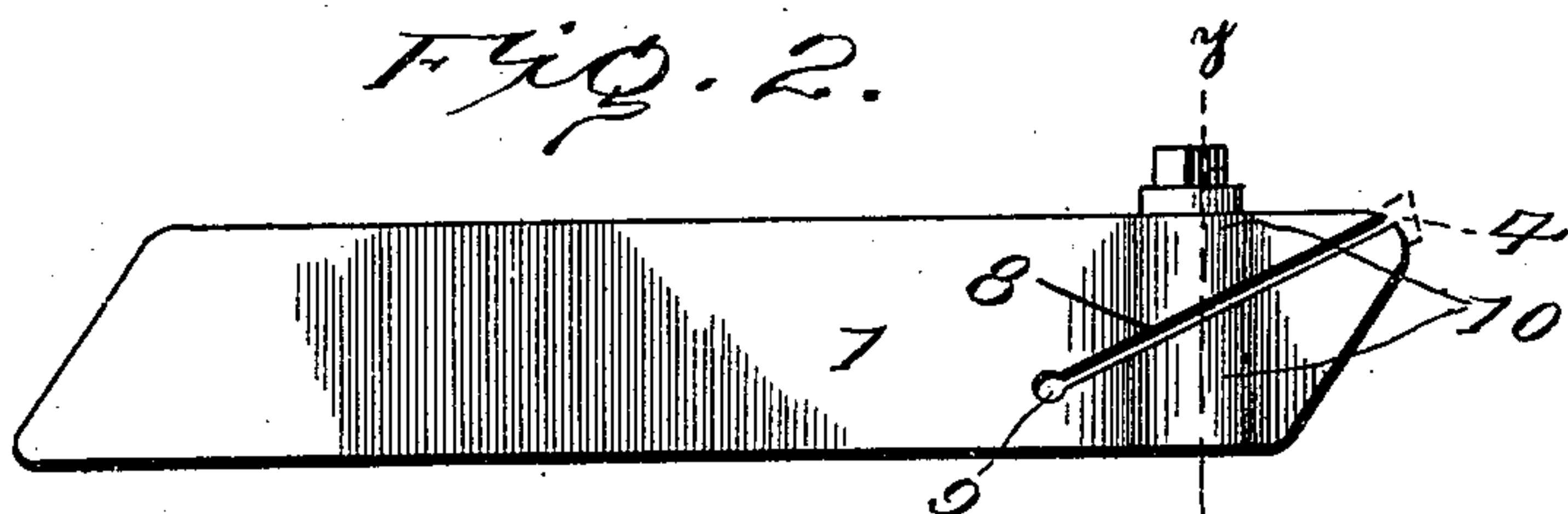
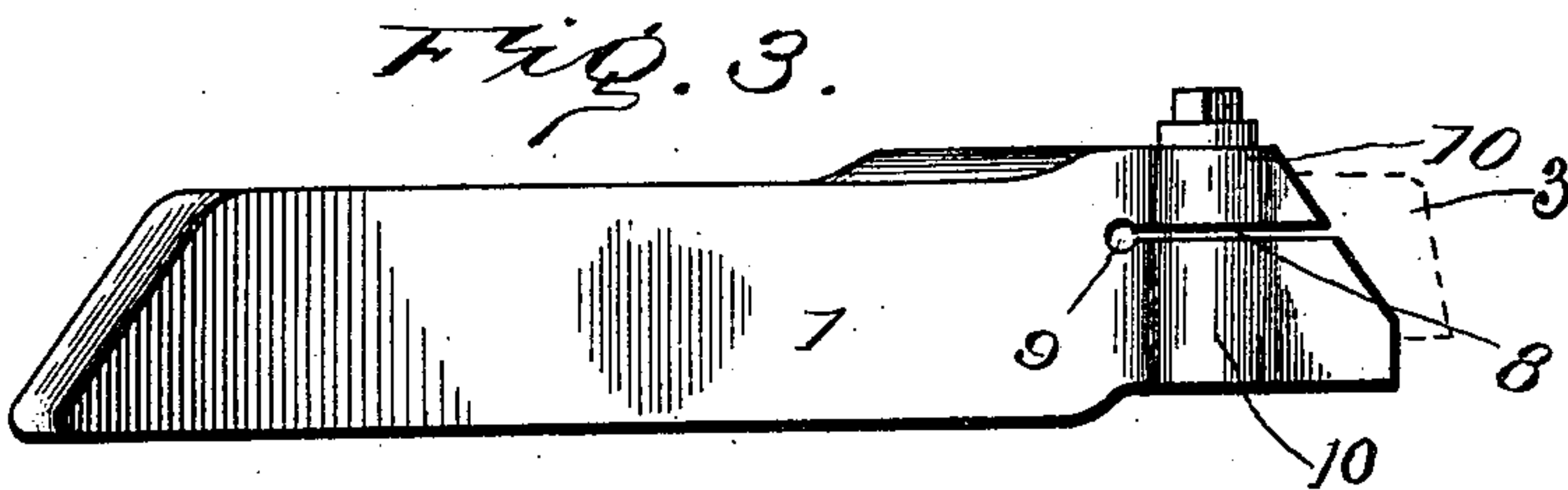
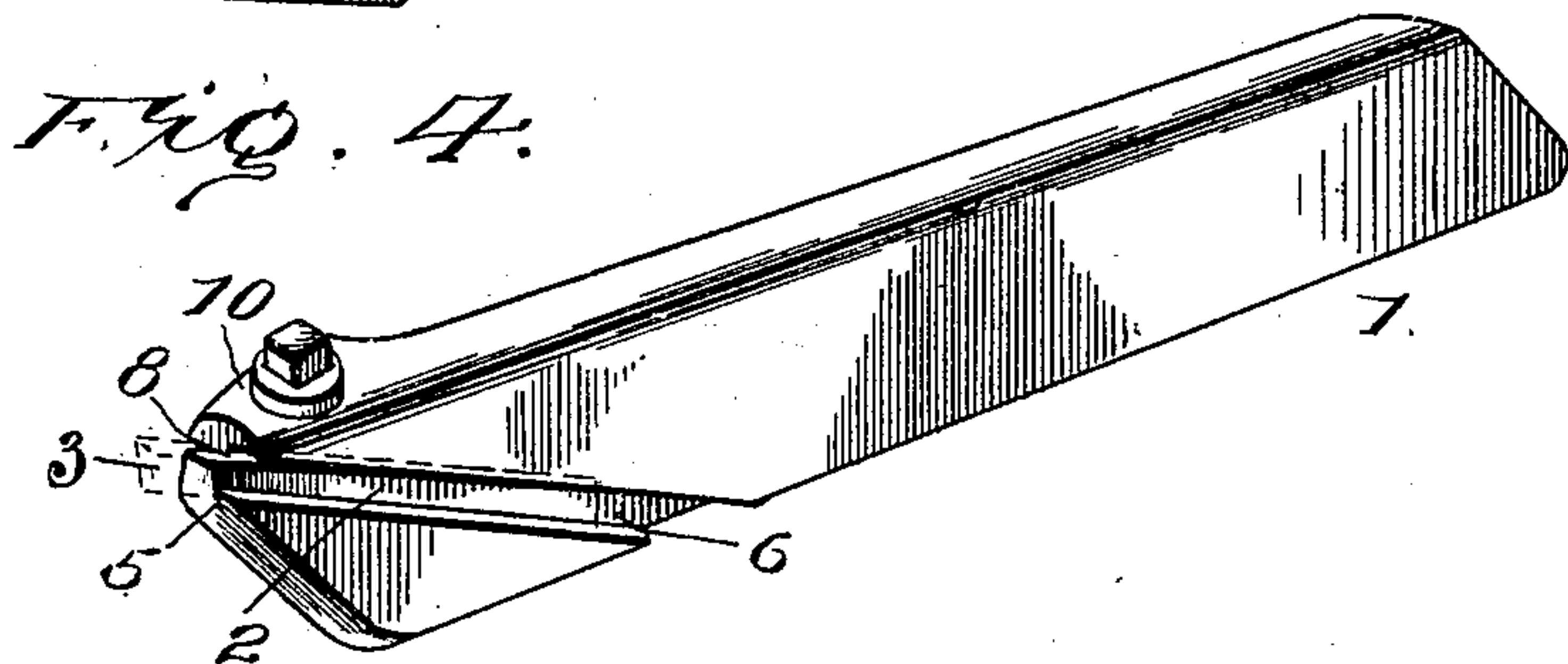
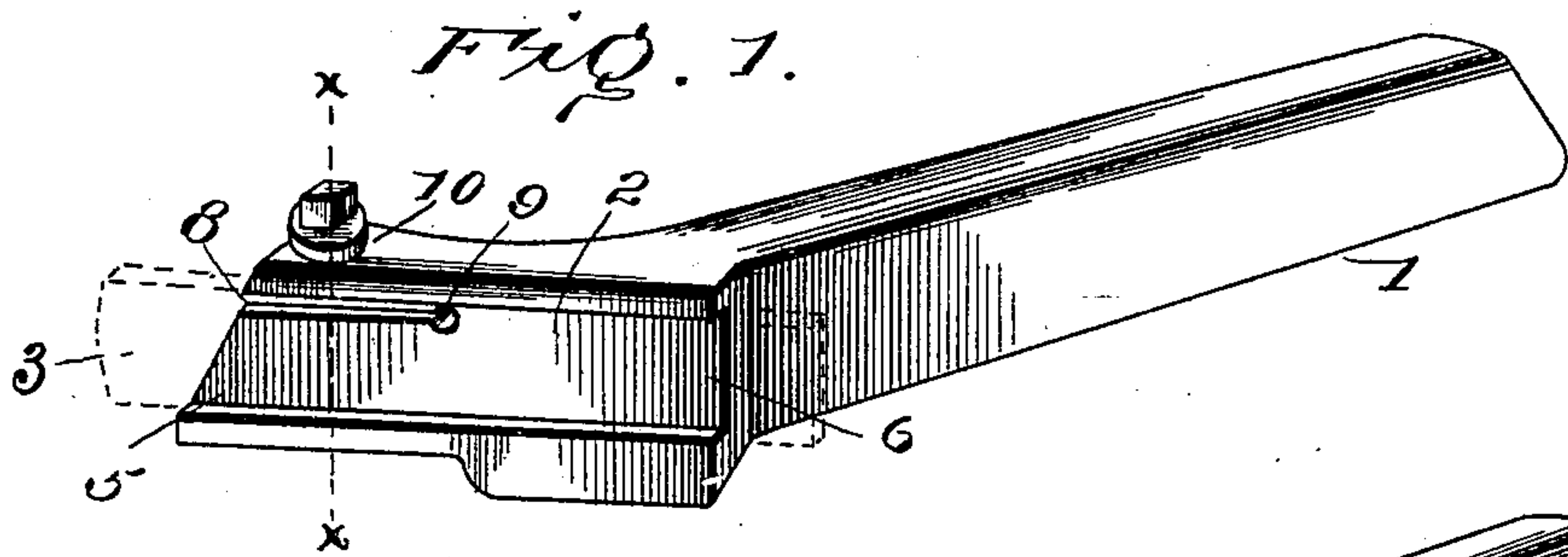
No. 665,538.

Patented Jan. 8, 1901.

C. P. MINGST.
CUTTING TOOL.

(Application filed July 11, 1900.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES P. MINGST, OF EVANSVILLE, INDIANA.

CUTTING-TOOL.

SPECIFICATION forming part of Letters Patent No. 665,538, dated January 8, 1901.

Application filed July 11, 1900. Serial No. 23,266. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. MINGST, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Cutting-Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to cutting-tools for use on lathes and other metal-working machines.

One object of the invention is the provision of a holder for a tool which will be much lighter than the forms of tool-holders at present known to the art, while being of such improved construction that a greater elasticity of the tool-clamping members of the split head or body will be had.

Another object of the invention is the provision of a tool-holder adapted for holding the tool perfectly rigid, whereby all rattling is obviated.

Other objects are the provision of a novel form of tool-holder of the split head or body type which will only require one clamping-screw and will be of such peculiar construction that great strength and lightness will be obtained without impairing the elasticity of the tool-clamping jaws or effecting the durability of the device.

Having the foregoing objects in view, the invention consists of a cutting-tool comprising certain improved features more fully set forth hereinafter and recited in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view illustrating the form the tool-holder will assume when used with a cutting-off tool or blade, the latter being shown in dotted lines; Fig. 2, a side view of the tool as adapted for roughing-off work, the blade being shown in dotted lines; Fig. 3, a side view of the tool shown in Fig. 1, disclosing the enlargement for the screw; Fig. 4, a perspective view of the tool of Fig. 2, taken from the opposite side; Fig. 5, a section taken on line *x x* of Fig. 1, and Fig. 6 a section taken on line *y y* of Fig. 2.

Referring now to Figs. 1, 3, and 5, 1 design-

ates the shank of the tool-holder, and 2 the head, which is arranged at an angle or offset in relation thereto, as with tools heretofore used. The working face of the tool-holder is provided with the seat for the blade 3, said seat having an undercut or dovetail construction at 4 and 5 and having the bottom or wall 6 of the seat inclined transversely—that is to say, the undercut 4 at the top of the tool being deeper than the undercut 5, gaged from the working face of the tool-head. The tool or blade 3 has its sides inclined, at least its inner side, in order that it may lie snugly against the bottom or wall 6 of the seat. The blade is wider at the top than at the bottom to prevent binding while a cut is being made.

The numeral 8 designates a slit which extends entirely through the head of the tool-holder, beginning at the forward end of the head and reaching back to the shank, at or about which point it is provided with an enlargement 9, ordinarily made by drilling a hole through the head at this point. This enlargement or hole constitutes an important part of the invention, because I have found in practice that it gives the jaws which clamp the blade or tool a much greater elasticity than they would otherwise possess, and it obviates the necessity of having a long cut or slit.

The two jaws on the split portion of the head are provided with an enlargement 10, which is internally screw-threaded for the single clamping-screw 11, which I employ. My object in providing this enlargement is to give strength at the point where the jaws are clamped together on the blade without increasing the weight or size of the head any more than is necessary, and by this construction I am enabled to dispense with heavy block-like heads, such as now found necessary in tools of the class to which my invention appertains. With the construction heretofore described the jaws can be very rigidly clamped against the blade or tool with little difficulty, while the blade is held tightly and cannot rattle or chatter or become displaced.

The form of my invention shown in Figs. 2, 4, and 6 is so far as structural features are concerned the same as that previously described, the main differences being that the seat for the blade or tool is inclined down-

wardly, as is also the slit, while the shank of the tool-holder is straight and alined with the head or can be bent in either direction, and the tool, known as a "roughing-tool,"
5 need not necessarily have its outer face flush or disposed below the side of the head.

I am aware that the invention can be applied to the different forms of tools known to the art, and I do not therefore limit myself
10 to the forms herein shown and described. I am also aware of the patents to Wood, No. 323,480, dated August 4, 1885; Whatley, No. 398,918, dated March 5, 1889, and Hill, No. 622,625, dated April 4, 1899, and I do not
15 therefore lay claim to any of the constructions therein shown or described; but,

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

20 The herein-described cutting-tool, comprising a shank, and a head which is provided on one side with a seat for the cutting-blade,

said seat having undercut retaining portions or lips, the upper one of which is an appreciably deeper undercut than the lower one, 25 and the wall or bottom of said seat being inclined transversely, said head having a slit extending entirely through it and its seat and provided with an enlarged opening, said slit providing jaws and said jaws being provided 30 with alined internally-screw-threaded enlargements, a clamping-screw threaded into said enlargements, and a blade or tool depending from its top to its bottom to conform to the inclination of the bottom of the seat, 35 and shaped to snugly engage the undercuts whereby rattling or chattering of the blade is obviated.

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

CHARLES P. MINGST.

Witnesses:

CHAS. W. TRAVIS,
GEORGE W. BOINK.