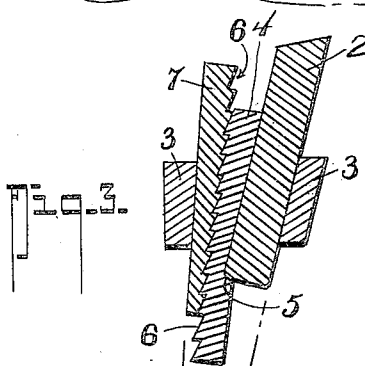
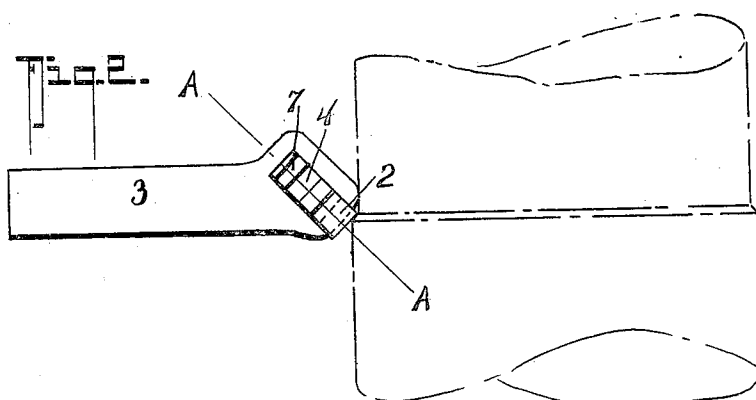
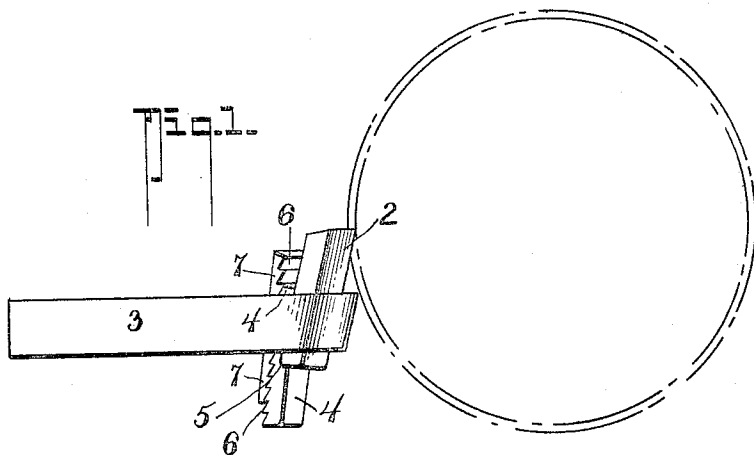


A. F. MARCONINI.
TOOL HOLDER.
APPLICATION FILED APR. 28, 1910.

980,309.

Patented Jan. 3, 1911.



WITNESSES:

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TOOL-HOLDER.

980,309.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed April 28, 1910. Serial No. 558,259.

To all whom it may concern:

Be it known that I, ANTONI F. MARCONINI, a citizen of the Dominion of Canada, residing at Victoria, in the Province of British Columbia, Canada, have invented a new and useful Tool-Holder, of which the following is a specification.

This invention relates to a tool holder such as is used to hold a small piece of special tool steel for cutting metal, and my object has been to provide a means whereby the cutting tool is securely held in a manner that the pressure of the cut will tighten the securing means and that has provision for adjustment and can be simply and quickly released from the holder.

The invention is particularly described in the following specification, reference being made to the drawings by which it is accompanied, in which:

Figure 1 is a side elevation showing the holder, the cutting tool and its tightening and adjusting wedges, Fig. 2 is a plan of the same, and Fig. 3 is a section on the line A A in Fig. 1.

In these drawings 2 represents the cutting tool, 3 the holder and 4 and 7 the supporting and securing wedges by which it is adjustably held therein.

The cutting tool 2 of any special steel is preferably square in cross section. Its cutting edges are formed by the oblique grinding of the end, and the clearance by the angle at which it is set in relation to the axis of the tool holder.

The holder 3, which is secured in any suitable manner to the tool rest of the tool box of the machine, is preferably made of ordinary tool steel of square cross section. It is provided at the end with an elongated rectangular aperture the sides of which are parallel and have a width adapted to receive the cutting tool 2. The front end of the aperture against which the tool 2 is secured is angled to give the required clearance to the tool and the back end of it is angled in relation to the front end to conform to the taper

on which shoulder the bottom end of that tool is designed to rest, and across the other face of the wedge are a series of fine ratchet teeth 6 the engaging faces of which are directed downward.

The contiguous face of the tightening wedge 7 has corresponding opposed teeth 6 so that 4 will transmit any downward pressure on it to 7 and through 7 to the back end face of the aperture the taper of which conforms to the taper of the wedge.

The action of the securing means can now be readily followed. On referring to Fig. it will be readily seen that the downward pressure of the cut on 2 is transmitted positively through the shoulder 5 to the wedge member 4 and therefrom through the ratchet teeth 6 to the tightening wedge 7 so that a tendency to move downward on the part of the cutting tool under the strain of the cut at once tightens the cutter more securely in the holder. This tightening is not due to the frictional grip between the cutter and the wedges but to the positive engagement therebetween. The cutter 2 may be raised or lowered in the holder the taper of the wedges 4 and 7 enabling the cutter to be tightened in that adjustment.

Having now particularly described my invention and the manner of its construction and use, I hereby declare that what I claim as new and desire to be protected in by Letters Patent, is:

1. In a tool holder, the combination with a cutting tool having uniform cross sectional dimensions, of a holder for attachment of the same to the tool rest of the machine said holder having an elongated aperture of uniform width but tapered end, wedges for securing the cutters in the aperture said wedges having a positive endwise engagement with one another and the one nearest the cutter having a shoulder on which the lower end of the cutting tool bears.

2. In a tool holder, the combination with a cutting tool, of a wedge member having a shoulder against which the lower end of the cutter bears and on the face against which

directed, a second wedge member having opposed corresponding serrations and a holding member having an aperture to receive together the cutting tool and wedges and a tapered end to correspond with the taper of the wedges.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

ANTONI F. MARCONINI.

Witnesses:

C. L. HARRISON,
RICHARD C. LEWE.