No. 641,997. Patented Jan. 23, 1900.

C. F. PRESTON.

TOOL HOLDER.

(Application filed Mar. 28, 1899.)

(No Model.)

Fig. 1

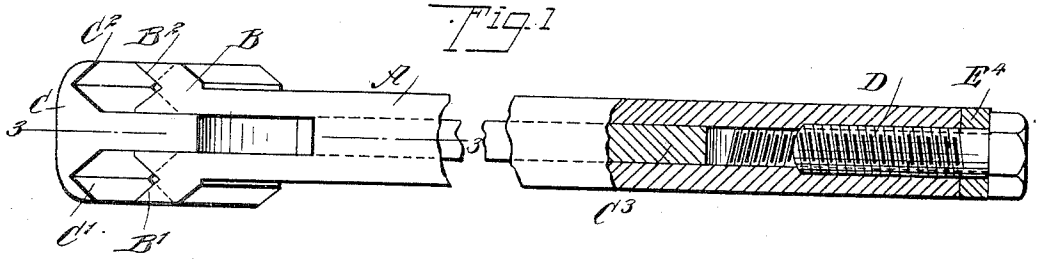
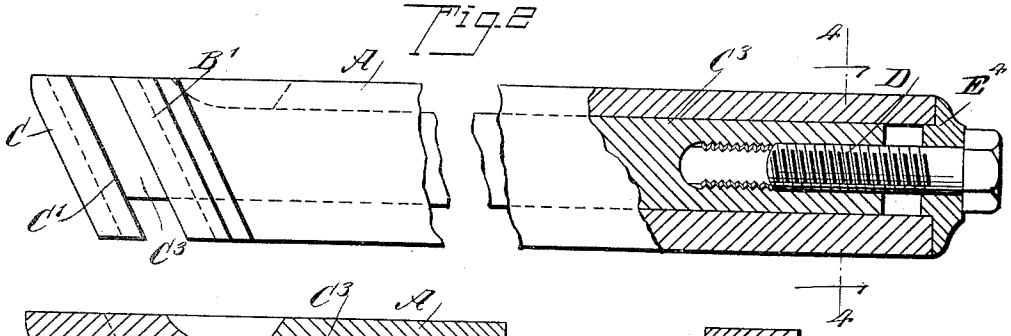


Fig. 2



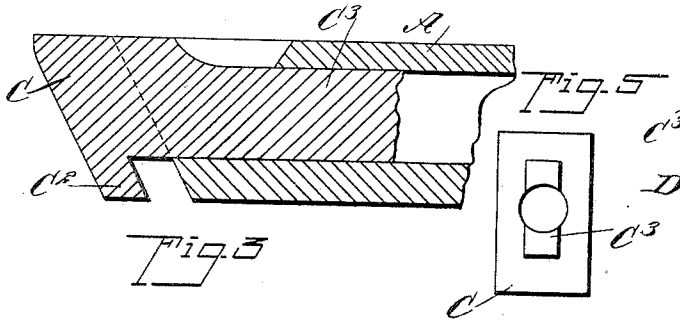


Fig. 3

Fig. 5

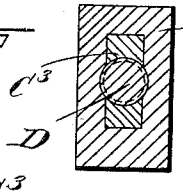


Fig. 4

Fig. 6

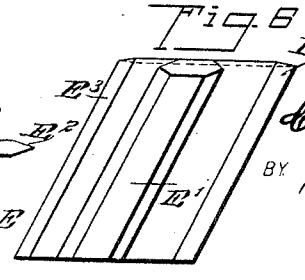
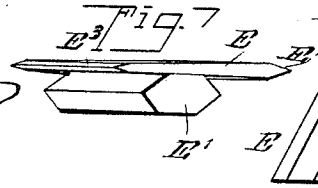


Fig. 7



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CHARLES FRUIN PRESTON, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO J. CHARLES STAMM AND OTTO E. AMUNDSON, OF SAME PLACE.

TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 641,997, dated January 23, 1900.

Application filed March 28, 1899. Serial No. 710,788. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FRUIN PRESTON, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Tool-Holder, of which the following is a full, clear, and exact description.

The invention relates to tool-holders for lathes, planers, or other metal-working machines; and its object is to provide a new and improved tool-holder which is simple and durable in construction and arranged to carry one or two tools at the same time and to allow of readily setting the tools into the desired angular position, according to the nature of the work in hand.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement with parts in section. Fig. 2 is a side elevation of the same with parts in section. Fig. 3 is a sectional side elevation of the same on the line 3 3 in Fig. 1. Fig. 4 is a transverse section of the same on the line 4 4 in Fig. 2. Fig. 5 is an end view of the clamp. Fig. 6 is a side elevation of one of the tools to be secured in the holder, and Fig. 7 is a plan view of the same.

The improved tool-holder is provided with a hollow shank A, adapted to be set and fastened in the tool-post in the usual manner, and on the forward end of said shank is formed a head B, having two V-shaped recesses $B' B^2$ on opposite sides and inclined as illustrated in Fig. 1. Opposite the recesses $B' B^2$ are similar V-shaped recesses $C' C^2$, formed in a clamp C, having a bar C^3 fitted to slide longitudinally in the hollow shank A. The rear end of the bar C^3 is engaged by a screw D, mounted to turn in a bearing E^4, held on the rear end of the shank A, so that when the head of the screw D is engaged by a wrench or other tool and turned then the bar C^3 is either moved inward or outward to move the clamp C, with its recesses, toward or from the head B and clamp the tool in position in the walls of the recesses $B' C'$ and $B^2 C^2$, respectively. Upon turning the screw D in an opposite direction the clamp C moves outward to release the tools and permit of removing or changing the same, as the case may be.

The tools to be carried by the holder may be of the usual diamond-shaped cross-section; but for cutting threads or the like I prefer to use the tool E, one for each set of recesses $C' B'$ and $C^2 B^2$, and this tool is made of a piece of tapering flat steel having a shank E' at one side for fitting the corresponding set of recesses $C' B'$ or $C^2 B^2$. The cutting edges $E^2 E^3$ of the tool are of different shape, so as to permit of cutting different-sized threads by reversing the tool in the holder.

From the foregoing it will be seen that two tools of the same or of different character can be used at the same time. For instance, one tool may be arranged for rough work and the other for finishing. If desired, only one tool may be used at a time in the holder.

I do not limit myself to the peculiar shape of the recesses as described or the shape of the tools to be clamped in the head by the clamp C, as it is evident that different shapes may be given to the recesses, and tools of round or polygonal cross-section may be secured in position on the holder.

It is understood that the clamping is done by a lengthwise-moving clamp, and consequently no projecting side parts, which may be in the way of the work, are found in the construction mentioned.

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

1. A tool-holder, comprising a hollow shank having a head, a clamp for clamping one or more tools on the head, said clamp being provided with a bar or rod working in the hollow shank and having its end terminating short of the end of the shank and provided with a screw-threaded socket therein, and a screw turning in a bearing in the outer end of the shank and working in the socket of the said bar or rod, substantially as described.

2. A tool-holder, comprising a hollow shank provided with a head having recesses on opposite sides, a clamp having recesses oppo-

site the recesses of the said head and provided with a rod or bar working in the hollow shank, the end of the rod or bar terminating short of the end of the shank and provided with a screw-threaded socket, and a screw turning in a bearing in the end of the shank and entering the socket of the rod or bar, substantially as described.

3. The combination with a tool-holder, comprising a shank, a head on said shank and having recesses, a clamp having recesses opposite the head-recesses, for engaging and clamping the tools in place on said head, a bar carrying said clamp and fitted to slide in said shank, and means for adjusting the bar longitudinally in the shank, of a tool formed of a plate having different-sized cutting edges, and provided with a shank on one side of the plate, for securing the tool in position in the holder, substantially as shown and described.

CHARLES FRUIN PRESTON.

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