(No Model.)

E. G. & W. HESS.

MACHINE FOR FLUTING WOODEN KNOBS.

No. 474,383. Patented May 10, 1892.

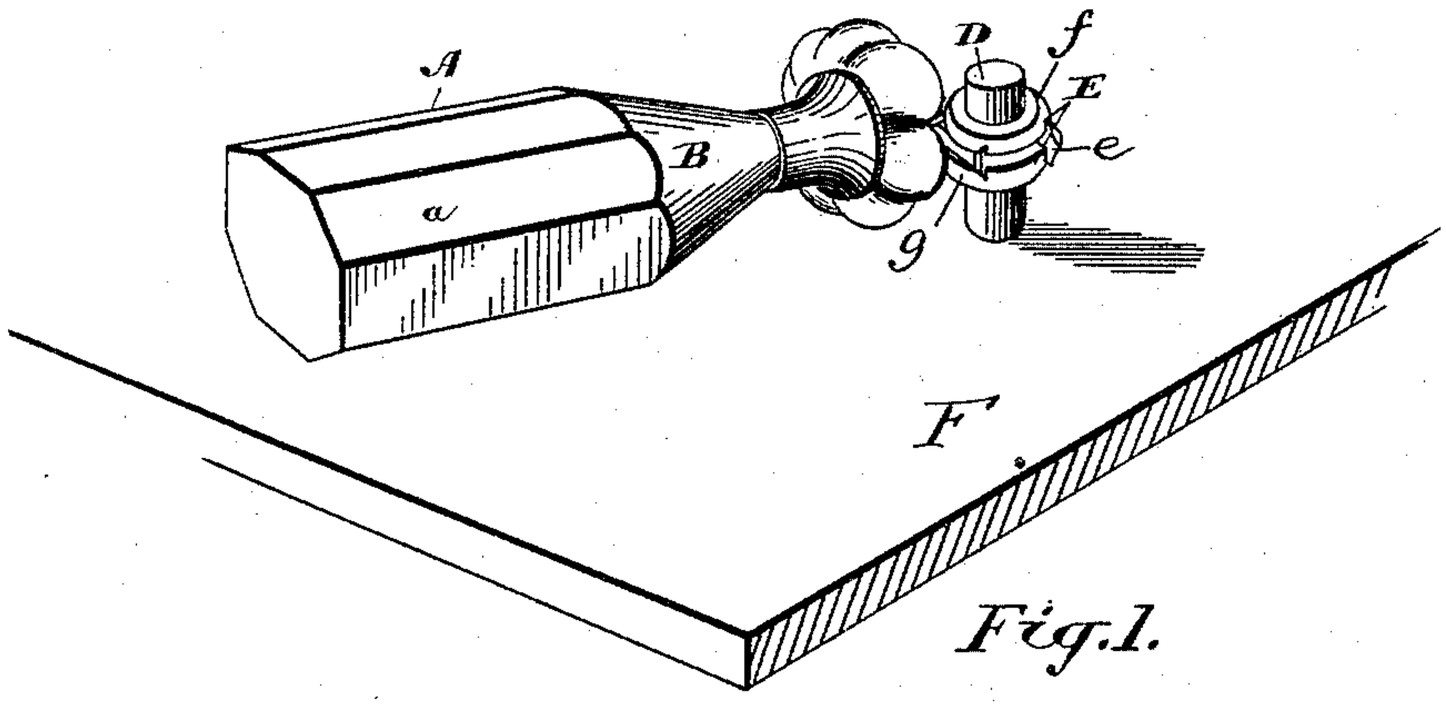

Fig. 1.

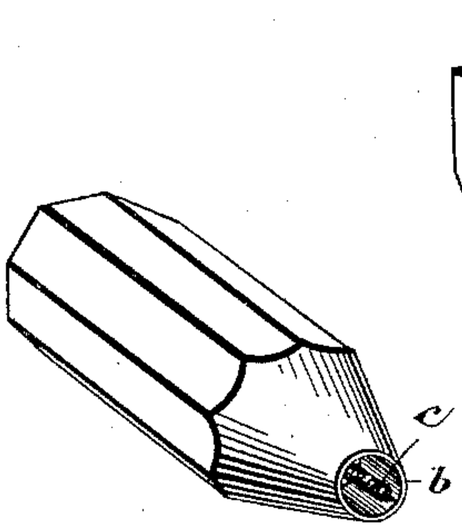

Fig. 3.

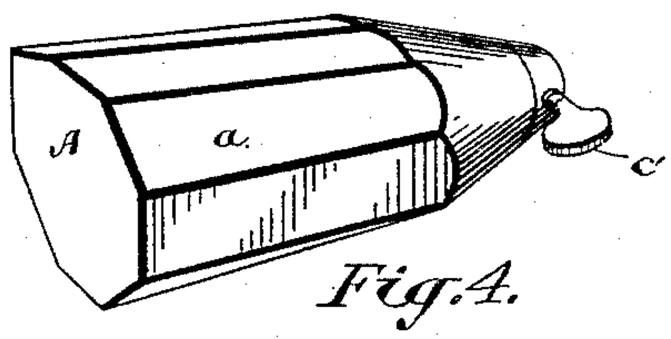

Fig. 4.

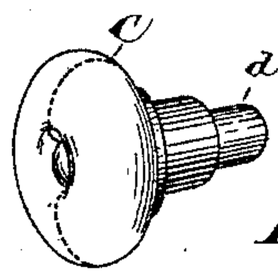

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

EMIL GEORGE HESS AND WILLIAM HESS, OF WEST TORONTO JUNCTION, CANADA, ASSIGNORS TO ALICE GRACE HESS, OF SAME PLACE.

MACHINE FOR FLUTING WOODEN KNOBS.

SPECIFICATION forming part of Letters Patent No. 474,383, dated May 10, 1892.

Application filed April 27, 1891. Serial No. 390,679. (No model.)

To all whom it may concern:

Be it known that we, EMIL GEORGE HESS, accountant, and WILLIAM HESS, manufacturer, both of the town of West Toronto Junction, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Machines for Fluting Wooden Knobs during the Period the Tool is Operating to Ornament Them, of which the following is a specification.

Our invention relates to the fluting of knobs or pulls; and it consists of a regular polygonal holding-block having all the equal polygonal sides fitted to bear upon a table or other plain base and provided with a holding end, fitted to retain the knob with its axis in line with the axis of the holding-block, in combination with a rotary cutter-head set in a plain table or like support and having the cutters revolving in a plane substantially parallel with the base.

Our invention is illustrated in the accompanying drawings, in which—

Figure 1 shows the apparatus in perspective, the supporting devices for the table or base and the mechanism for rotating the cutter-head being omitted. Fig. 2 shows the knob before fluting. Fig. 3 show the holding end of the block. Fig. 4 shows a tapering form of block.

In the drawings, F represents a table or base, upon which the holder rests and is moved. The surface of it is plain and is of sufficient extent to permit the full movement of the holder around the head, as hereinafter described.

The shaft of the cutting-head is shown at D. It is set in suitable bearings and extends above the table at right angles to the surface of the table. The cutter-head is shown at E. It consists of cutters *e*, held in place between two collars *f g* on the shaft. The cutters therefore revolve in a plane parallel to the surface of the table. The holder consists of a block shown with a tapering end B. The part A of the block is a prism having sides *a*, corresponding in number to the number of flutings in the knob; but it may be slightly tapering, as in Fig. 4. These sides are fitted to bear upon the table and are of such extent that they afford a firm support to the block and the knob carried thereon while in process of fluting. Any suitable means may be used to hold the shank of the knob upon the reduced end of the block with the axis of the knob in line with the axis of the block. An axial hole is shown in the tapering end, with a screw *c* set axially in the hole. The knob C shown in Fig. 2 is there represented in its plain form before fluting. The shank *d* is fitted to the hole *b* in the block shown in Fig. 3, the screw *c* entering the shank and holding the knob to the block. The diameter of the prismatic part of the block is a little greater than the diameter of the knob, so that when the knob is in place the block may be moved about with any one of its faces bearing firmly on the table. The cutting-head is so set that the points of the cutters revolve in a plane coinciding with the common axis of the block and knob.

The knob may be held to the block by means of the clamp-screw *c'* of Fig. 4.

In using this apparatus the workman grasps the block, and holding it firmly upon the table, one face resting evenly thereon, presses the knob against the revolving cutter-head, and thus holding it in contact with the cutter-head and with the face of the holder upon the table moves it around so as to cut a groove or fluting across the face and around the periphery of the knob. Having completed one fluting, he turns the block to bring the next face or any required face to bear upon the table, and then moves the block and knob and forms another fluting, as above described. This operation is repeated until the required number of flutings is made. The depth of the groove is limited by the length of the cutters, and the block may be held and guided with very little experience by unskilled workmen, as the knobs will bear upon the face of the collars.

We claim as our invention—

An apparatus for fluting knobs, consisting of a plain table, combined with a cutter-head having its cutters revolving in a plane parallel to the face of the table and with a knob-holder consisting of a polygonal part A and a holding end, the sides of the polygonal part being fitted to bear upon the table and sustain the holder and knob, substantially as described.

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