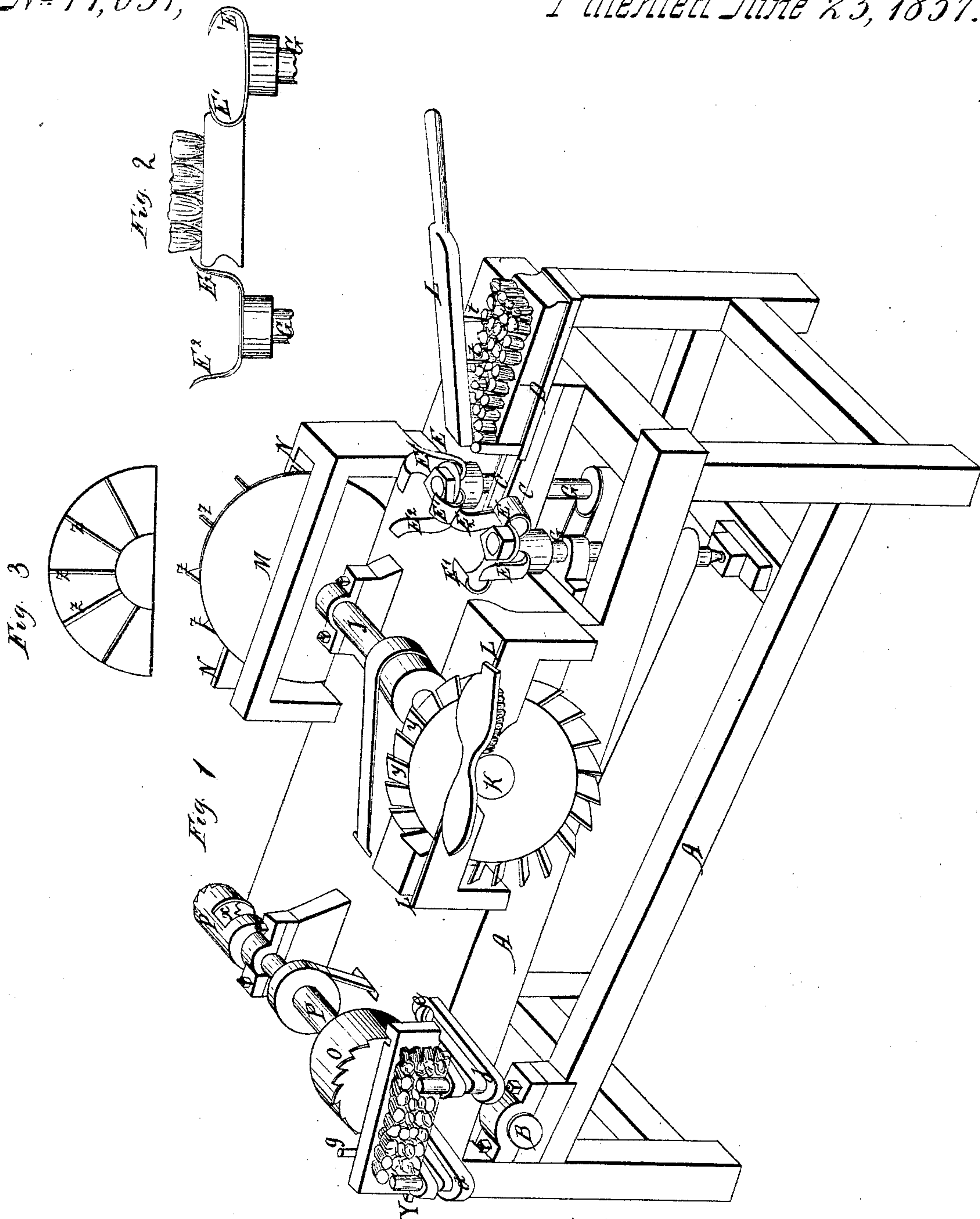


T. Mitchell,

Making Brush Handles,

No 17,631,

Patented June 23, 1857.



Witnesses.
E. J. Miller
John Perick White

Inventor
Thomas Mitchell

UNITED STATES PATENT OFFICE.

THOMAS MITCHELL, OF LANSINGBURG, NEW YORK.

MACHINE FOR FINISHING BRUSH-HANDLES.

Specification forming part of Letters Patent No. 17,631, dated June 23, 1857; Reissued June 28, 1859, No. 749.

To all whom it may concern:

Be it known that I, THOMAS MITCHELL, of Lansingburg, Rensselaer county, State of New York, have invented certain machinery 5 to be used in the manufacture of brushes for the purpose of shaping the stock after the bristles have been set therein; and I declare the following specification, with the drawings hereto attached as part of the 10 same, to be a full and perfect description thereof.

Figure 1, A A is a strong frame or bench to which the various pieces of machinery are attached being operated by hand pulleys as 15 drums attached to the shaft B, the drums not being shown in the drawings. C C are two parallel guides raised a little above the front edge of the bench and extending backward therefrom. On the top of them slides 20 a platform D upon which the brush to be operated upon is laid. These guides pass between cutters E¹, E², attached to a pair of vertical shafts G, G, and of course revolving horizontally. These cutters are to form the 25 molding or edges of the sides of the brush as shown in Fig. 2, which represents a cross section of the brush with one of each kind of cutter operating on its stock.

The cutters are of two different forms 30 E¹ and E², E¹ being shaped to form the lower part of the molding and E² the upper as the brush lies on D bristles uppermost. The cutters may be varied to give variety to the molding.

35 To hold the brush firmly down a lever L, hinged to an upright standard on the rear of D, is used; the part over the brush carrying several metal points or teeth *t, t, t* which pass through the bristles and hold into the 40 stock. By this handle the platform with brush is passed through between the revolving cutters and back again. To finish the end of the stock, a crown wheel saw O which is a true cylinder whose circumference is of 45 a proper curve and is attached to a shaft H. In front of the saw two projecting arms *d, d*, slotted so as to be adjustable by set screws

e on the table, to or from the saw support by two uprights *f, f* a platform Y, Y, adjustable higher or lower, as desired. Also by 50 the movement of the arms *d, d*, at any angle with the saw. On this the brush is laid with one end against a stop *g*, to keep it from the saw, and the other is then brought against the saw which trims that end; the 55 brush is then turned and the other end cut in the same manner.

Across the center of the bench is a shaft J carrying at one end a cutter wheel K with knives *y y* set around its periphery at an 60 oblique angle with the plane of the wheel, and having also an oblique pitch or inclination forward. This wheel is used for trimming the edges of curved brushes, which are applied to it in the manner illustrated in the 65 drawings by a hair brush in position for being cut the bristles lying against the edge of a guard or gage piece L, so that by turning the brush, using the bristles as a guide, a proper form is given to the stock. M also a 70 cutter wheel, a vertical scene of which is given in Fig. 3 has a set of these knives *z, z*, placed radially, and at right angles to the plane of the wheel. This is used to finish the sides of rectangularly shaped 75 brushes. The brush being applied with its bristles against a gage board N N in manner similar to that operation at cutter wheel K.

I claim—

The arrangement and combination of 80 mechanical devices set forth and described in the above specification constituting a machine to be used for the purposes and in the manner set forth; viz: platform D with revolving cutters shaped and operating 85 as described; crown saw O with the arms *d, d*, and the adjustable platform; and cutter wheels K and M with their cutters substantially as set forth in the specification and drawings.

THOMAS MITCHELL.

Witnesses:

E. J. MILLER,

RICHARD V. DEWITT.