

H. Winter,

Turning Regular Forms.

Nº 39,252.

Patented July 14, 1863.

Fig. 2.

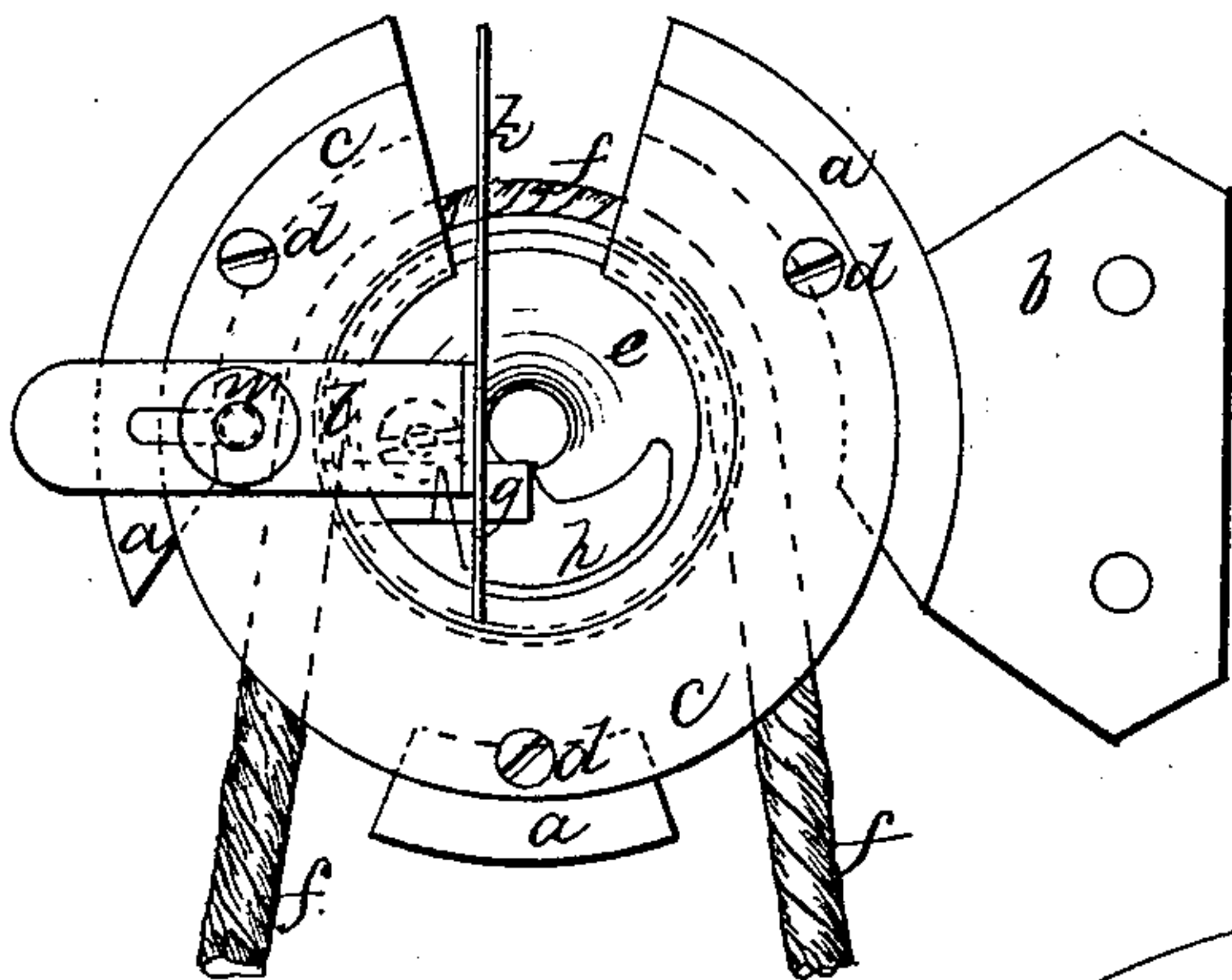


Fig. 3.

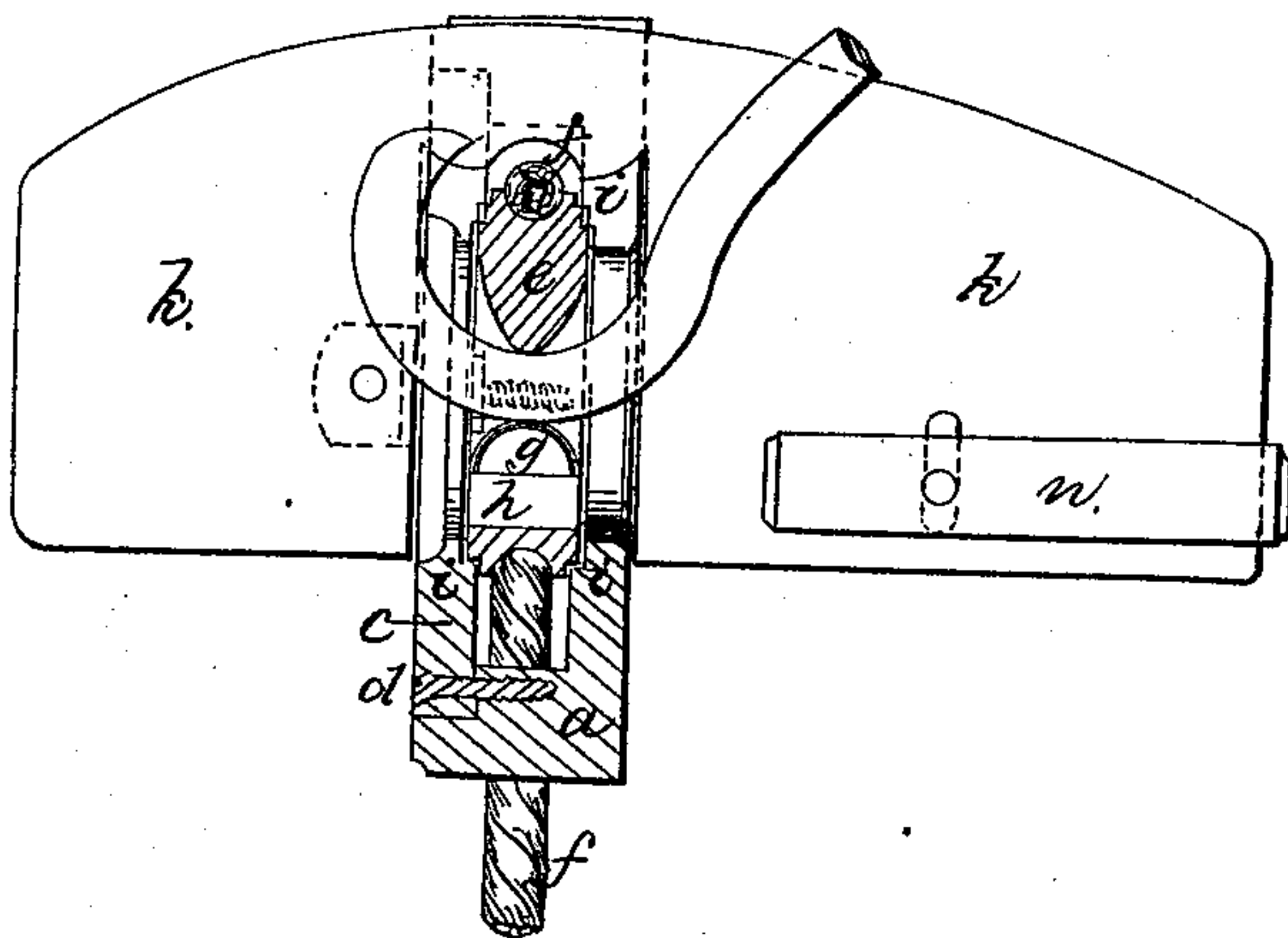
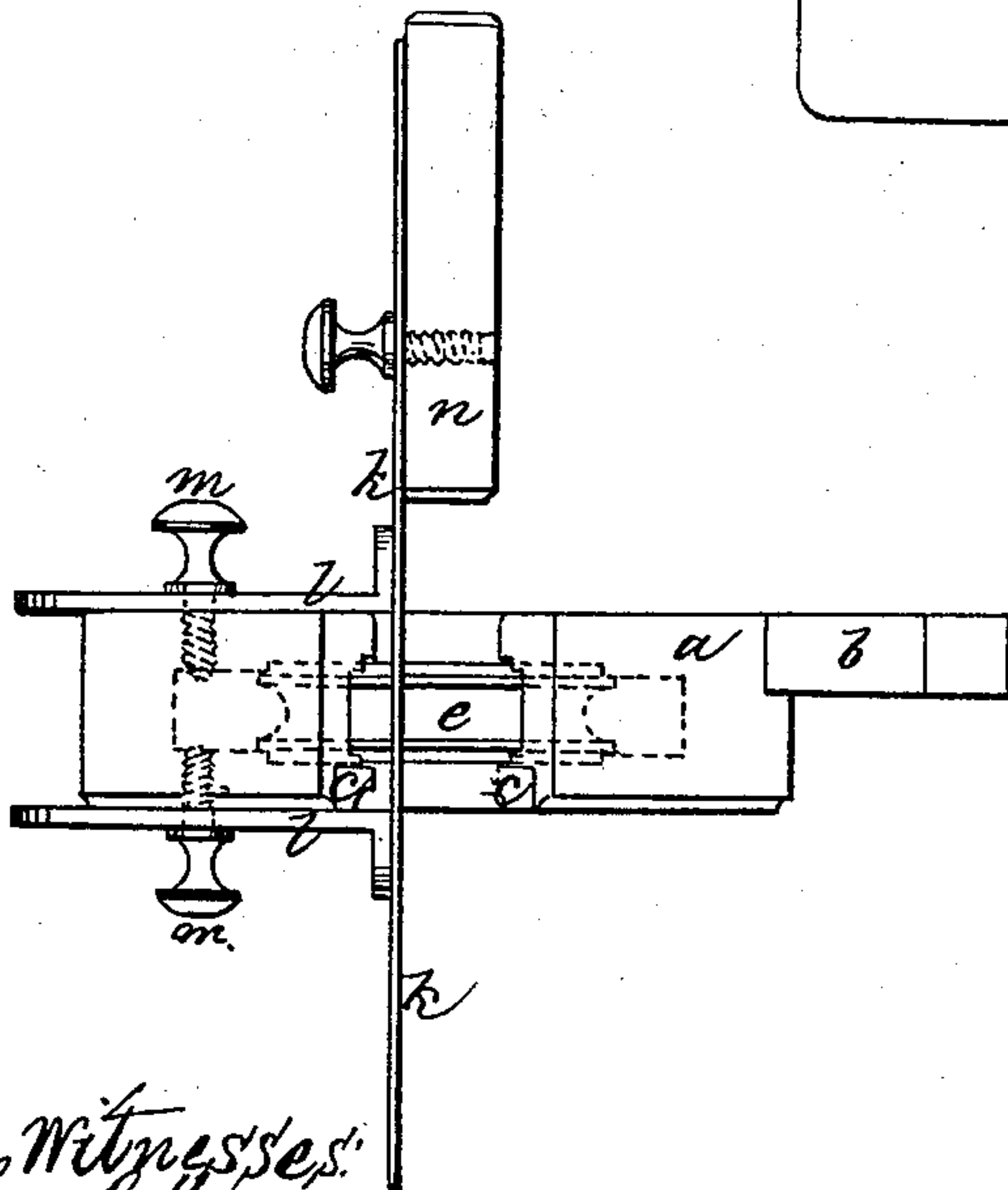


Fig. 1.



Witnesses:
Geo. S. Muller
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UNITED STATES PATENT OFFICE.

HENRY WINTER, OF HONESDALE, PENNSYLVANIA.

MACHINE FOR TURNING UMBRELLA HOOKS OR HANDLES.

Specification forming part of Letters Patent No. 39,252, dated July 14, 1863.

To all whom it may concern:

Be it known that I, HENRY WINTER, of Honesdale, in the county of Wayne and State of Pennsylvania, have invented, made, and applied to use a certain new and Improved Means for Turning Umbrella-Hooks, &c.; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a plan of my turning apparatus. Fig. 2 is an elevation of the same, and Fig. 3 is a cross-section.

Similar marks of reference denote the same parts.

Straight sticks for umbrella-handles, parasol-handles, &c., have heretofore been turned by a hollow revolving mandrel, carrying a cutter or cutters, but such machinery is not adapted to turning the hooks and bends usually made on the ends of such handles.

The nature of my said invention consists in a revolving head sustained in a peculiar manner and carrying a cutter, and said head is formed so that the bent or hooked part of the stick can be turned around and drawn through said head as the stick itself is swung over from one side to the other. Thereby all parts of the hook or bend of the stick are dressed perfectly round and true, making a neat and handsome finish with but little labor.

In the drawings, *a* is a ring-shaped stock secured by the flange *b* in any convenient position. *c* is a ring-shaped cap setting within a recess in the stock *a*, and *d d* are screws retaining said cap to the stock. The construction of this cap and stock are such that there is an open space left between them, and the rings themselves are notched entirely through on one side, for a purpose hereinafter shown.

Between the stock *a* and cap *c*, I introduce the cutter-head *e*, that is made with circular ribs at its edges entering circular grooves in the faces of the respective parts *a* and *c*, as seen at *i i*, Fig. 3. Around the periphery of this cutter-head *e* is a groove for receiving the band or belt *f*, by which it is rotated at a high speed, the said head turning in the space formed for it between *a* and *c*, as aforesaid. This belt *f* passes out at openings through the stock *a*, and is driven by competent power

applied to a drum or wheel. In this head *e* is a cutter, *g*, of a semicircular or gouge shape, secured by a screw, and *h* is a mouth formed in the cutter-head for the chips and shavings to escape as cut from the stick that is entered through the circular hole in the center of this revolving cutter-head. The cutter-head around this center hole is beveled off or formed of nearly a semicircular shape, as seen in Fig. 3, so as to flare or be trumpet-shaped on each side.

k is a fence or support sustained by the arms *l* and screws *m*, and said fence can be adjusted so that one side thereof comes on the line of the circular hole in the center of *e*, and *n* is a gage on the face of the fence *k*. I prefer that the sticks themselves should be dressed off, so far as straight, by the ordinary hollow mandrel, although this apparatus may be used for that purpose. The stick is laid in the angle formed between *k* and *n*, and passed through the revolving cutter-head, and on coming to the part of said stick that is hooked or bent, the attendant swings the stick over as he draws the hook through the cutter-head, thereby causing said cutter-head to dress the hook or bend circularly, while the curvature in the outline of such hook or bend is followed with precision. The fence *k* becomes a support to the hook or bend while being dressed, and prevents vibration in the same.

What I claim, and desire to secure by Letters Patent, is—

1. The revolving cutter-head with a gouge-shaped cutter, and with a center opening that is flaring or trumpet-mouthed on each side for dressing curves or hooks on umbrella-sticks and other articles, substantially as specified.

2. The mode of constructing the stock *a* and cap *c* for receiving and sustaining the rotating cutter-head, as set forth.

3. The adjustable fence *k*, in combination with the revolving cutter-head *e*, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 16th day of May, 1863.

HENRY WINTER.

Witnesses:

GEO. G. WALLER,
JOHN MCINTOSH.