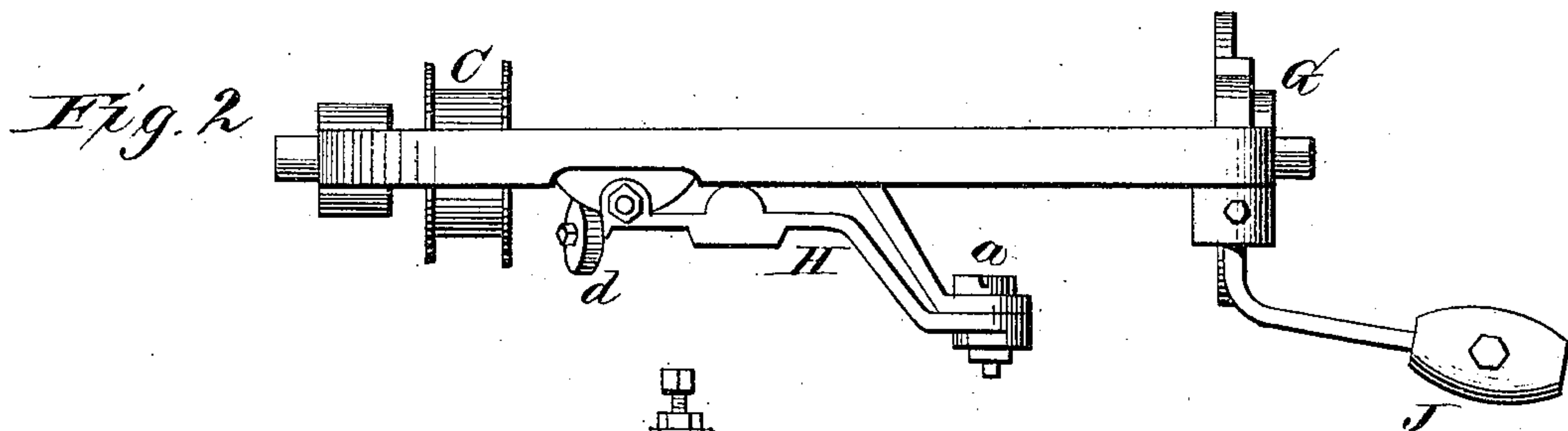
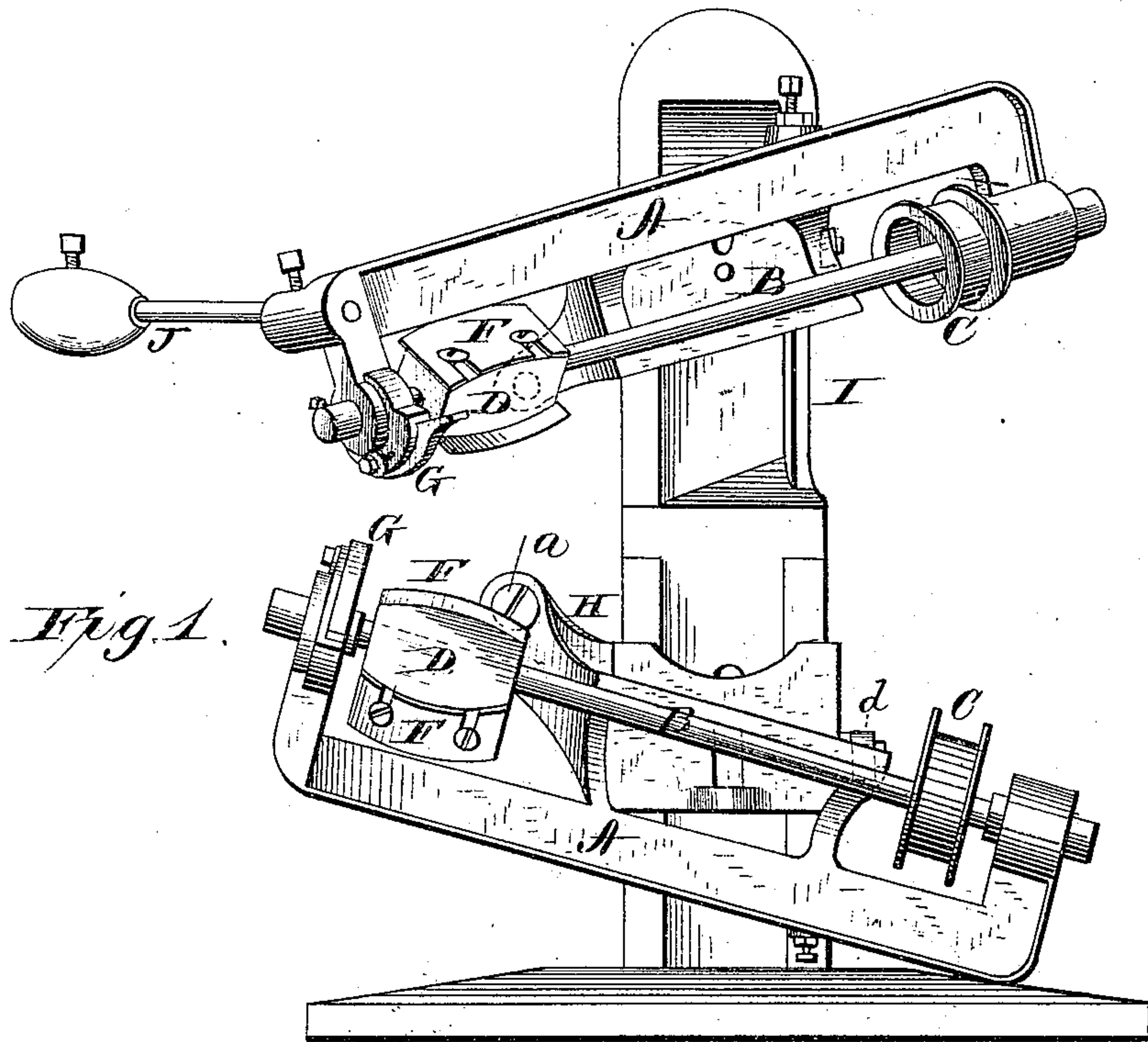


(No Model.)

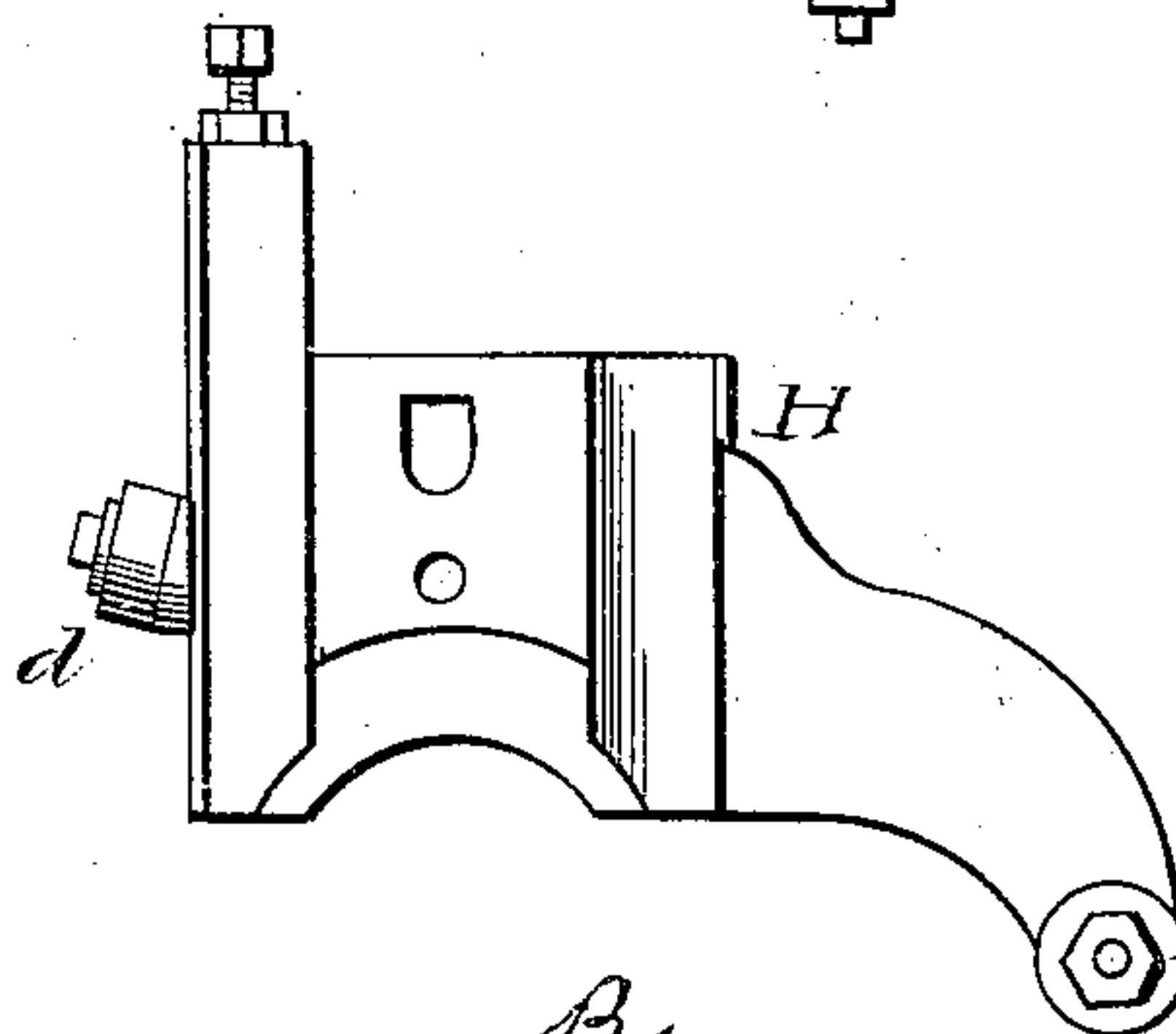
O. ALLEN.  
Spoke-Throating Machine.

No. 230,983.

Patented Aug. 10, 1880.



*Fig. 3.*



WITNESSES  
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ATTORNEY

# UNITED STATES PATENT OFFICE.

OSCAR ALLEN, OF MOUNT MORRIS, NEW YORK.

## SPOKE-THROATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,983, dated August 10, 1880.

Application filed April 24, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR ALLEN, of Mount Morris, in the county of Livingston, and in the State of New York, have invented certain new and useful Improvements in Spoke-Throating Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a spoke-throating machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a front elevation of my machine. Fig. 2 is a plan view of a part thereof. Fig. 3 is a detailed view of a part thereof.

A A represent two frames, each carrying a shaft, B, having a pulley, C, near one end for the passage of a belt for rotating the shaft. At or near the other end of the shaft B is secured the head D, which carries the curved adjustable knives or blades F F, for cutting or shaping the throat of the spoke. At this end of each frame is the form G, as shown. Each frame is pivoted at *a* to an arm or casting, H, which is adjustably attached to an upright, I.

The spokes are to be moved forward by machinery or hand with a straight or circular feed carried on a carriage of any suitable description, and held by the tenon and body of the spoke being passed between the forms G G, one cutter passing over and the other under the spokes, the frames carrying the cutters turning upon the pins or bolts *a*. The arms H, that hold said bolts or pins, are crooked or built outside of the circle of the knives, and the frames may be made to swing from any point from the cutting-edge of the knife to the shaft or spindle. As shown, they are made to swing nearly horizontally, with the heel of the knife in line with the pin or bolt, making the shoulder of the spoke straight,

while the front end of the knife moves over or under the body and makes the same of the same shape as the forms, which may be changed to any shape desired.

The two oscillating frames are set on a twist, or one ahead of the other, so that the points of the cutters will pass each other. The under frame will hang in right position without any weight or spring, but the upper frame will be held in place by a ball, J, or by a spring. By raising or lowering the upper frame to give it more or less pitch the spokes may be made thinner or thicker on the face and back, as desired.

On each casting H is mounted a roller, *d*, against which the back side of the frame A works to relieve the friction caused by the belts pulling the frames A against the castings, and which may run to any angle parallel with the spindles.

The forms G are slotted and adjustable so as to move backward or forward, making the spoke thin in front with thick back and both sides alike, or in any other shape desired.

The pivot *a* for each frame being carried outside of the circle, and low enough to keep the heel of the knife from swinging or moving up or down, makes the shoulder straight or rounding by changing the shape of the knife. The object of this is to throat both sides at once and across the grain.

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

The arms H, adjustably and angularly secured to the upright I, and provided with the studs *a* and rollers *d*, in combination with the oscillating frames A, pivoted on said studs and carrying the rotating knives F, forms G, and pulleys C, substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 22d day of April, 1880.

OSCAR ALLEN. [L. S.]

Witnesses:

THOMAS J. GAMBLE,  
GEORGE C. BRANCH.