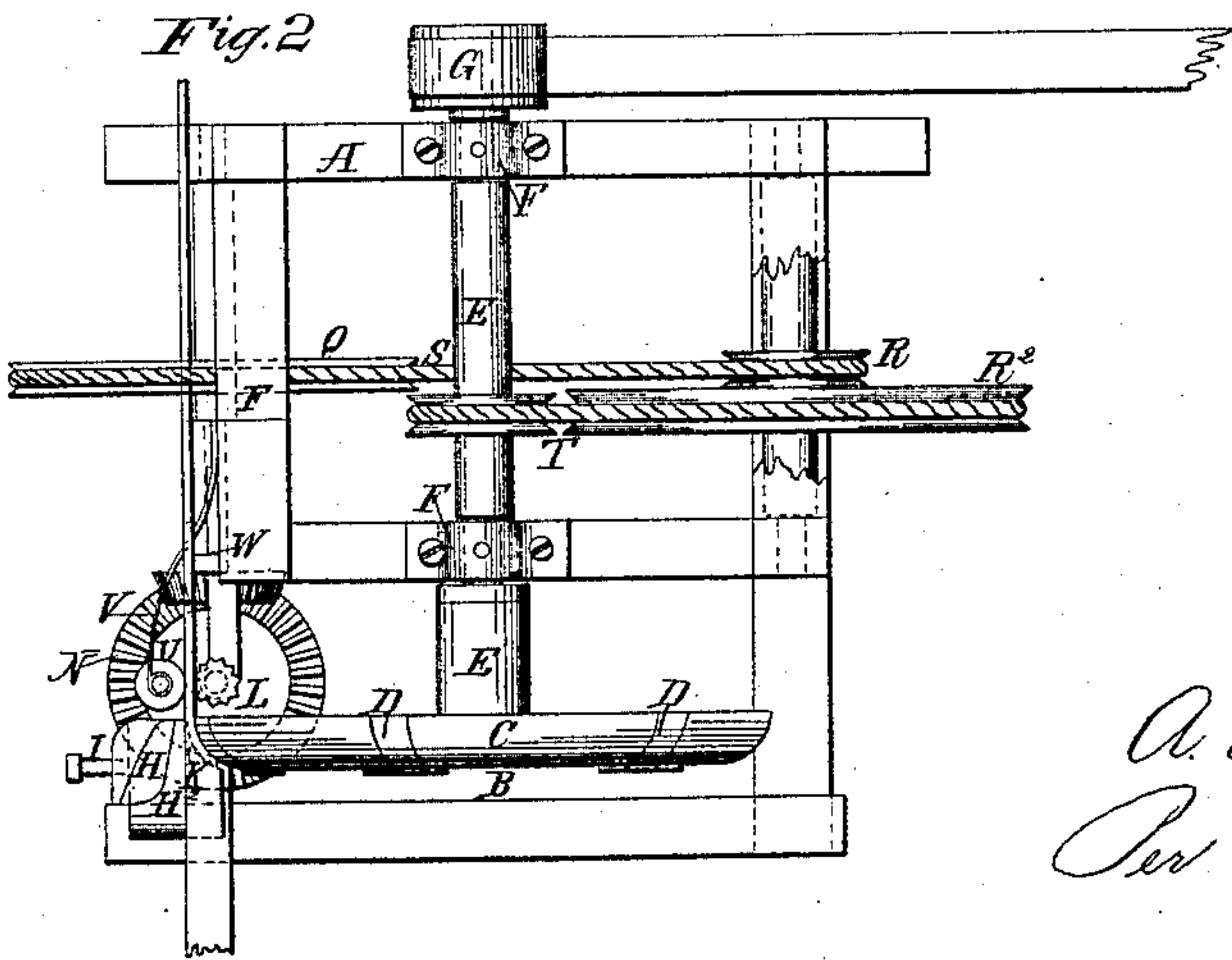
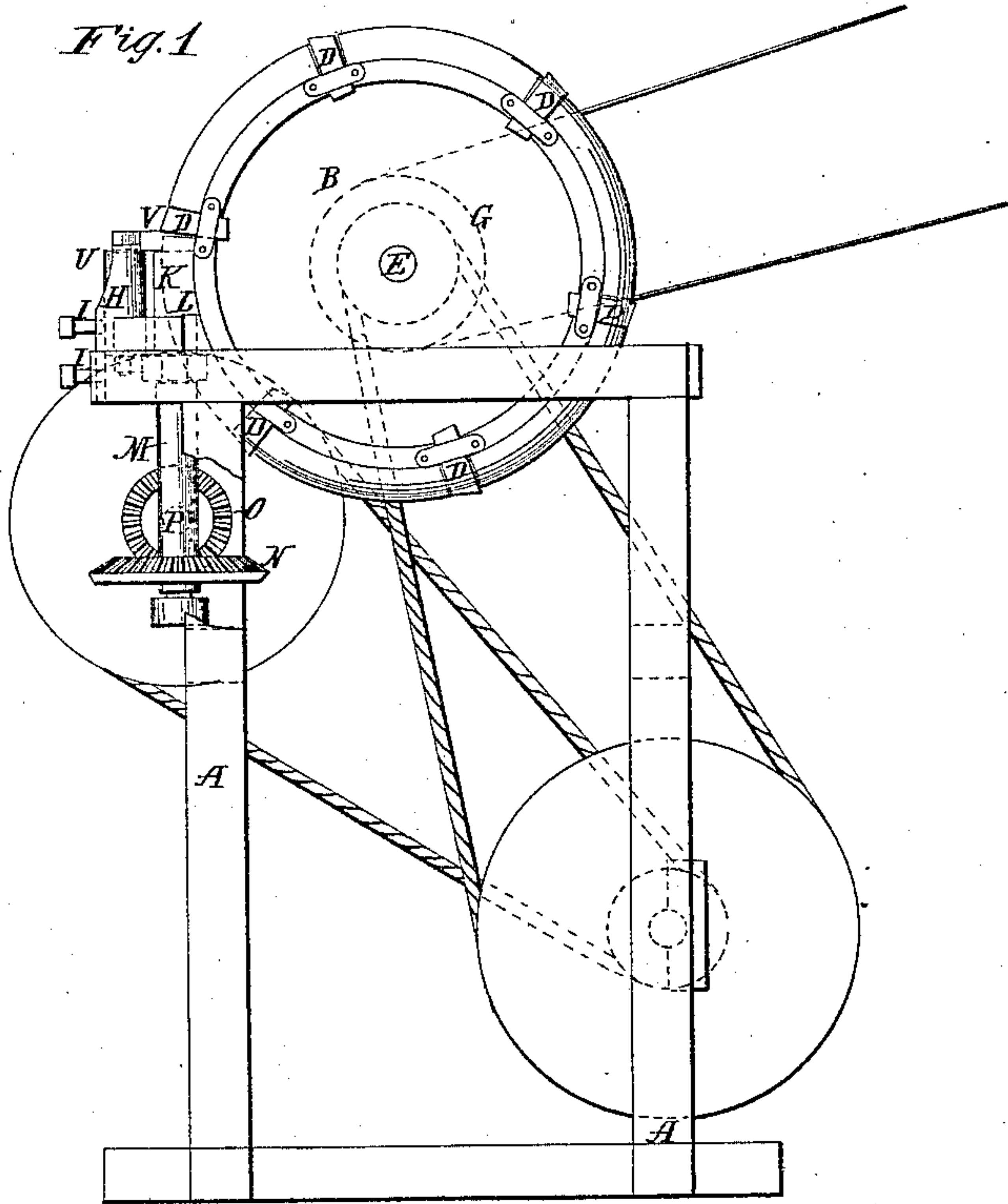


A. Mc Alpine,
Making Hoops.

N^o 61,226.

Patented Jan. 15, 1867.



Witnesses:

J. A. Service.
Wm. Spurn

Inventor:

A. Mc Alpine
Per Munroe
Attorneys

United States Patent Office.

ALBERT McALPINE, OF PITSTON, PENNSYLVANIA.

Letters Patent No. 61,226, dated January 15, 1867.

IMPROVEMENT IN MACHINES FOR DRESSING BARREL HOOPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALBERT McALPINE, of Pittston, in the county of Luzerne, and State of Pennsylvania, have invented new and useful Improvements in Machines for Cutting or Shaving Hoops for Barrels, Casks, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The machine embraced in the present invention consists of a revolving wheel made of a circular elliptic shape around its periphery or edge, where it is provided with a series of similar-shaped knives or cutter-blades secured to the outer periphery of said wheel at equal distances apart, arranged with a head-block located directly opposite the revolving cutter-wheel, adjusted by set-screws so as to permit the hoop to pass at any thickness required and to be cut or shaved concave so as to fit the shape of the cask or barrel. In connection with the above, I have also arranged a feed and a pressure-roller, in such a manner as to draw the stuff being cut, through the machine as fast as acted upon by the revolving cutter-wheel, leaving the uncut part of the hoop in the hand of the operator, perfectly under his control, so that however winding or crooked the pole may be, it is cut an even thickness in all its parts and in such manner so as not to disturb the bark on said hoop only so far as may be required to reduce the hoop to an even thickness. In the accompanying plate of drawings my improvements in machines for shaving hoops are illustrated—

Figure 1 being an elevation of the front side of the machine; and

Figure 2, a plan or top view of the same.

Similar letters of reference indicate like parts.

A, in the drawings, represents the framework of the machine, which may be of any suitable construction to accommodate the various working parts of the same. B a wheel or plate, having its edge or periphery C made of a circular elliptic shape, and provided with a series of cutter-blades, D, at equal distances apart and of a corresponding shape thereto. This wheel B is secured in a vertical position to one end of a horizontal shaft, E, arranged to turn in suitable bearings of the upper cross-pieces F, of the framework A. G a pulley on shaft E, to which the driving power used is to be connected in any suitable manner for driving said shaft E and thus revolving the cutter-wheel B. H a head-block, secured by means of set-screws I I to the framework A, in a vertical position, and directly in front of the wheel B, between the round edge H² of which and the said block H is an opening or space, K, the width of which is to be adjusted to the thickness of hoop that it is desired to shave in the machine. To shave a hoop in the machine, the pole from which it is to be shaved is first inserted in the same between the head-block H and the wheel B. When revolving the latter, its cutters successively act upon the said stick cutting it across the grain into a thickness corresponding to the width of the space between the head-block and the cutter-wheel, for the whole or only a portion of its length, as it is fed through and between said head-block and the cutter-wheel, by the hands or in any other suitable manner. To feed the stick through the machine, I have provided an arrangement of a feed and a pressure-roller to be now described.

L the feed-roller, placed in a vertical position back of the cutter-wheel, so as to bear upon the cut side of the hoop as it passes from the cutter-wheel. This feed-roller is fluted or corrugated in the direction of its length, and is secured to the upper end of a vertical shaft, M, arranged to turn in suitable bearings of the framework A. N a horizontal bevel gear-wheel, secured to shaft M, at or near its lower end, with which gear-wheel a vertical bevel gear-wheel, O, engages; which is attached to one end of a horizontal shaft, P, arranged to turn in bearings of the framework A, and connected through pulleys Q, R, and R², and belts S and T, with the shaft carrying cutter-wheel B. U the pressure-roller, hung through similar spring-arms V, one at each end, to the framework A, so as to stand in a vertical position to one side of the feed-roller back of the head-block; the pressure-rollers being arranged to revolve in the said spring-arms. W set-screws, in framework upon the inside of the spring-arms V, the object of which is to so hold the spring-arms as to prevent the pressure-roller from running in contact with the feed-roller, when no "stuff" is passing between the two.

From the above description the operation of the feed and pressure-rollers in connection with the cutting-wheel is plainly obvious, as by the manner in which the pressure-roller is hung, it is capable of holding the hoop tight between it and the feed-roller, as it passes from the cutter-wheel, whether such hoop be more or less

thick. In conclusion, it may be here remarked, that, from the manner in which the stuff passes to the cutter-wheel, and from the fact that it is cut by the edge of the same and through convex-shape cutters, in the direction of their length, it is plainly obvious that the stick while being cut is under the perfect control of the operator and workman, so that it can be turned either to the right or left as may be found necessary in order to cut the stick to the best possible advantage for securing the greatest amount of strength in the hoop, as, for instance, to cut out this or that knot or flaw, as it or they may occur in the stick.

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

Dressing barrel hoops their entire length to a thickness by the cutter-wheel B, when arranged to operate with the guide or head-block H, pressure-roller U, and feed-roller L, all constructed substantially as described.

The above specification of my invention signed by me this 6th day of November, 1866.

ALBERT McALPINE.

Witnesses:

WM. F. McNAMARA,

ALBERT W. BROWN.