

(No Model.)

E. POWELL.
HOOP CUTTING MACHINE.

No. 348,582.

Patented Sept. 7, 1886.

Fig. 1.

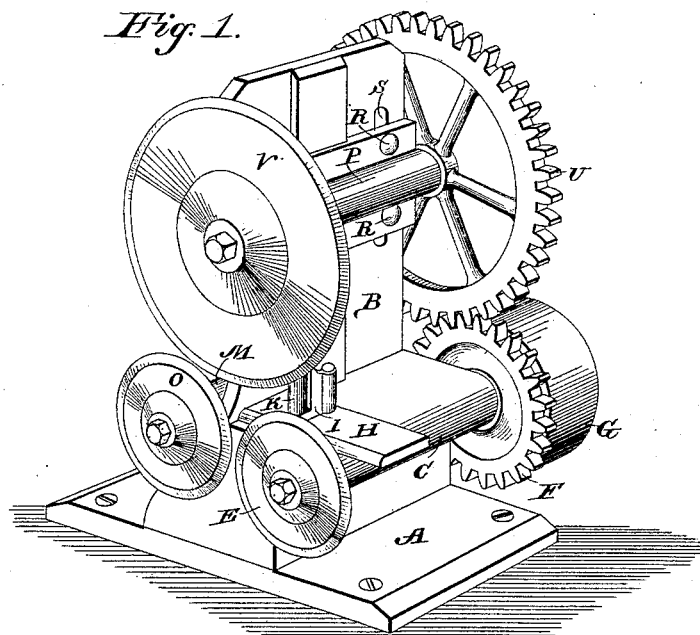


Fig. 2.

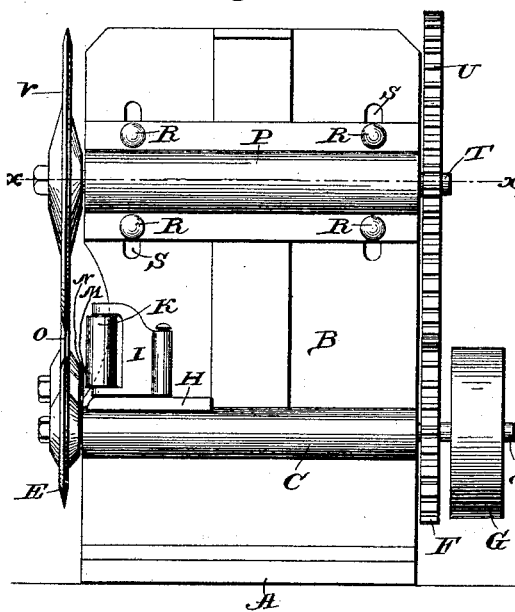
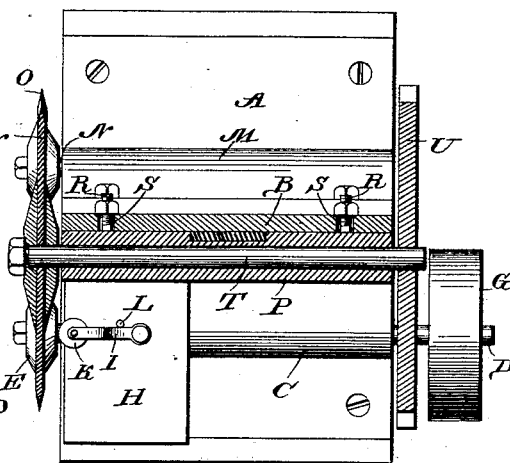


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWIN POWELL, OF WILLIAMSPORT, PENNSYLVANIA.

HOOP-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 348,582, dated September 7, 1886.

Application filed May 15, 1886. Serial No. 202,252. (No model.)

To all whom it may concern:

Be it known that I, EDWIN POWELL, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Hoop-Cutting Machines, of which the following is a specification.

My invention relates to an improvement in machines for cutting barrel-hoops from hoop-poles; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a machine embodying my improvements. Fig. 2 is a front elevation of the same. Fig. 3 is a horizontal section taken on the line *x x* of Fig. 2.

A represents a bed-plate, and B represents a transverse vertical standard which projects from the upper side of the said bed-plate.

On the front side of the standard B, near the lower end of the same, is formed a transverse bearing, C, which extends entirely across the standard, and in which is journaled a shaft, D, to one end of which is attached a circular cutting-disk, E, the edge of which is sharpened by being beveled on opposite sides. To the other end of the shaft D is attached a spur-pinion, F, and a band-pulley, G.

H represents a horizontal platform, which is secured on the upper side of the bearing C, near the cutting-disk E, and on the upper side of the said platform is pivoted a vertical swinging adjustable gage, I, in the free edge of which is journaled a vertical anti-friction roller, K. A stop-pin, L, projects from the platform H and bears against the inner side of the gage I, so as to confine the movement of the latter toward the standard B and arrest it when it reaches a position parallel with the shaft D.

M represents a bearing-box, which is secured on the rear side of the standard B, near the lower end of the same, and is vertically adjustable on the said standard. In the said bearing-box is journaled a shaft, N, one end of which is provided with a circular cutting-disk, O, which is in a line with the disk E, and has its upper edge on a higher plane than the upper edge of the said disk E.

On the front side of the standard B, near the

upper end of the same, is bolted a transverse bearing-box, P, which is secured to the standard B, and is vertically adjustable thereon by means of bolts R, which pass through vertical slots S, that are made in the standard. A transverse shaft, T, is journaled in the bearing-box P, and to one end of the said shaft is fixed a spur-wheel, U, which meshes with the spur-pinion F. To the opposite end of the shaft T is attached a large circular cutting-disk, V, which is in a line with the disks E and O, and the lower edge of the said disk V is on a lower plane than the top edge of the disk O.

From the foregoing description, and by reference to the accompanying drawings, it will be seen that the cutting-disks are all placed on one side of the machine, and project therefrom, thus enabling hoop-poles of any size desired to be fed to the cutting-disks. When the shaft D is rotated, its motion is communicated to the shaft T by reason of the gear-wheels F and U, thereby causing the shaft T to rotate in the contrary direction from the shaft D, thus causing the opposing edges of the cutting-disks V and E to travel in the same direction rearwardly, and thus grasp the hoop-pole which is fed between them, and partly split or cut the same lengthwise and force it rearwardly onto the cutting-disk O. The said cutting-disk runs in the kerf made by the disk E, and as the upper edge of the said disk O is higher than the upper edge of the disk E, and also higher than the lower edge of the disk V, it will be understood that the hoop will be completely severed from the pole.

By making the bearing-boxes in which the transverse shafts are journaled vertically adjustable for a slight distance, the cutting-disks may be adjusted vertically in order to compensate for wear, and thus always insure a clean cut.

Having thus described my invention, I claim—

1. The combination, in a hoop-cutting machine, of the cutting-disks E and O, located in a line with each other and at different vertical planes, and the cutting-disk V in a line with the said cutting-disks O and E, the lower edge of the disk V being lower than the top edge of the disk O and higher than the top edge of

the disk E, for the purpose set forth, substantially as described.

2. The combination, in a hoop-cutting machine, of the standard, the box C, secured at the lower side of the same, the shaft D, journaled in the said box, and having the cutting-disk E at one end and the pinion F at the opposite end, the vertically-adjustable bearing-box P near the upper end of the standard B, the shaft T, journaled in the said box and having the cutter V at one end, and the spur-wheel U at the opposite end meshing with the pinion F, the vertically-adjustable bearing-

box M on the rear side of the standard B, and having the shaft N, provided at one end with the cutting-disk O, the said cutting-disks V, O, and E projecting from one side of the machine-frame, substantially as described. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 20

EDWIN POWELL.

Witnesses:

S. F. GOTTSCHALL,
JOHN C. STONES.