J. A. PEOPLES.

Machine for Splitting Hoop-Poles.

No. 197,052. Patented Nov. 13, 1877.

Fig. 1.

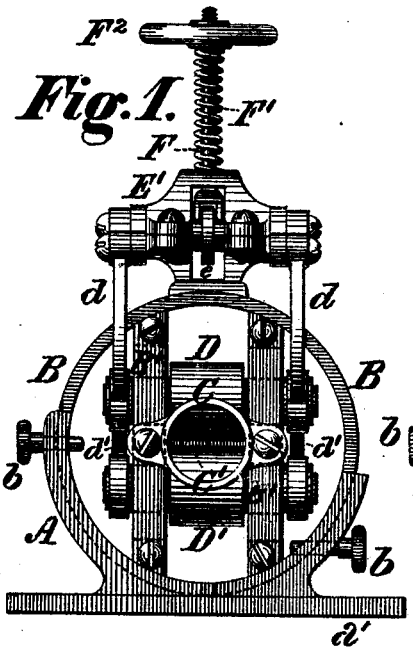


Fig. 2.

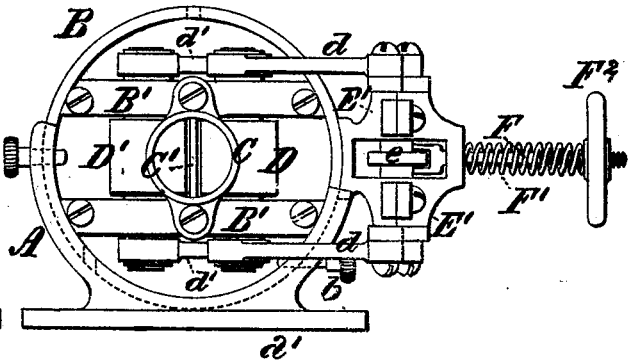


Fig. 3.

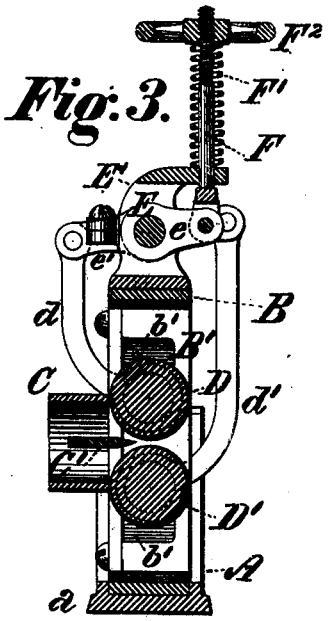


Fig. 4.

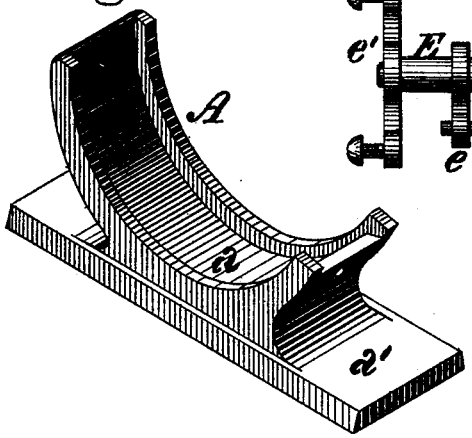
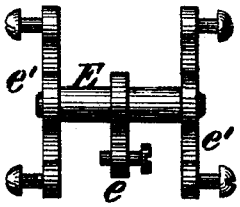


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES A. PEOPLES, OF CHICAGO, ILLINOIS, ASSIGNOR TO ROSWELL HART, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN MACHINES FOR SPLITTING HOOP-POLES.

Specification forming part of Letters Patent No. **197,052**, dated November 13, 1877; application filed September 8, 1877.

To all whom it may concern:

Be it known that I, JAMES A. PEOPLES, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Splitting Hoop-Poles, of which the following is a specification:

My invention relates to machines in which hoop-poles are divided into two or more longitudinal sections or splints by a stationary knife, to which they are presented by feeding mechanism, such as a reciprocating carriage or rotating feed-rolls, and it is specially adapted for application and use upon the hoop-splitting machine for which Letters Patent No. 192,874 were granted and issued to Roswell Hart, as my assignee, under date of July 10, 1877.

The object of my invention is to provide simple and efficient splitting and centering mechanism, which shall have the capacity either of dividing a hoop-pole into two splints or of resplitting half-round splints, as desired.

To this end my improvements consist in the combination of a segmental bearing piece or socket and a circular frame, adjustable in different positions therein, and carrying a splitting-knife and centering-rolls, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a view, in elevation, of a splitting and centering device, embodying my improvements, in position for dividing a hoop-pole into two splints; Fig. 2, a similar view of the same turned into position for resplitting; Fig. 3, a vertical longitudinal central section of the same; Fig. 4, a view, in perspective, of the segmental bearing-piece; and Fig. 5, a view, in elevation, of the rock-shaft and arms of the centering-rolls detached.

Inasmuch as any desired arrangement of feeding and discharging apparatus may be employed, and as my present invention constitutes an adjunct of the machine specifically distinct therefrom, the feed and discharge devices need not be here set forth, and I will therefore proceed to describe my improvements *per se* as adaptable to a hoop-splitting machine.

To carry out my invention, I provide a segmental bearing piece or socket, A, having an internal groove or recess, *a*, and a base or foot, *a'*, by which it is attached to the frame of the machine. The foot is made preferably with inclined sides, as shown, to enable it to be fitted to a dovetail groove in a stationary clamp on the frame, as described in Letters Patent No. 192,874 aforesaid. The bearing-piece A is substantially semicircular, but is made lower at top upon one side than the other, for a purpose presently to be described.

A circular frame, B, fits within the groove *a* of the bearing-piece A, and is secured therein in either of the positions shown by Figs. 1 and 2, respectively, by locking pins or studs *b* passing through holes in the frame and bearing-piece. A knife-support, C, is secured to transverse guide-blocks B' on the frame B, and carries a single-bladed splitting-knife, C', the edge of which is set in line with the center of the frame B. Two centering-rolls, D D', the axes of which are parallel with the edge of the knife C', are mounted in bearings having the capacity of movement, in slots *b'* in the guide-blocks B', toward and from the center line of the frame B and knife C'. A rock-shaft, E, is mounted in bearings E' on the exterior of the frame B, parallel with the rolls D D', to the center of which shaft is secured a spring-arm, *e*. A link-lever, *e'*, is secured centrally to the rock-shaft E, at each side of the ends thereof. The bearings of the upper roll D are connected by links *d* with one of the arms of each of the link-levers *e'*, on the same side of the rock-shaft E, and the bearings of the lower roll D' are similarly connected to the opposite arms of the link-levers by links *d'*. A vertical spring-rod, F, passes freely through the upper bearing of the rock-shaft E, and is pivoted at its lower end to the spring-arm *e* of said shaft. A spring, F^1, encircles the rod F, above the upper bearing E', and bears at bottom against said bearing, and at top against a nut, F^2, working on a screw formed on the rod F, by which screw its tension may be varied, as desired.

The tension of the spring F^1, as applied to the centering-rolls D D' by the rock-shaft and links, acts centripetally upon said rolls, as against the separation thereof by a hoop-pole passing between them, and with equal force

upon each roll, so as to present the pole centrally to the knife, and to cause the rolls to bear equally thereon while the pole is being split.

In the operation of my improvements in splitting hoop-poles into two splints, the frame B is secured in the bearing-piece A in the position shown in Fig. 1—that is to say, with the knife C′ and centering-rolls D D′ parallel with the feed-rolls or feed-carriage, by which movement is imparted to the pole to present it to the knife.

When resplitting of half-round splints is to be done, the locking-pins *b* are removed, and the frame, with its accessories, turned into the position shown in Fig. 2—that is to say, with its knife and centering-rolls at right angles to the feed-rolls or feed-carriage, and secured in this position by the pins *b*.

It will be remarked that the bearing-piece A is made sufficiently lower at top upon one side than on the other to permit the lower bearing E′ of the rock-shaft to clear it when turned into the position shown in Fig. 2. Either of these operations may thus be performed upon the same machine, without any change of mechanism, by a simple and ready adjustment of the parts as described; and as the device is complete in itself, and has no connection with the machine other than the attachment of its bearing-piece thereto, it can readily be removed, and a three-part knife and centering device substituted, if desired.

I am aware that centering-rolls mounted in sliding bearings governed, through the intermediation of links, by a spring or springs are not new, and do not therefore claim such device, except in combination with other members, hereinbefore described, of my improved centering and splitting apparatus.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, in a hoop-splitting machine, of a segmental bearing-piece and a frame carrying a splitting-knife and centering-rolls, and fitted to and adjustable in different positions in said bearing-piece, substantially as set forth.

2. The combination, with the movable supporting-frame, of a splitting-knife secured centrally to transverse jaws therein, two centering-rolls having the capacity of movement in said jaws toward and from the center line of the knife, links by which the rolls are connected to a rock-shaft on opposite sides thereof, respectively, and a spring acting upon an arm on said rock-shaft, and tending to resist the outward movement of the rolls, substantially as set forth.

3. The combination of the circular supporting-frame, the rock-shaft mounted in bearings external thereto, the spring-rod pivoted to an arm on the rock-shaft, and a spring acting between the bearing of the rock-shaft and an adjusting-nut on the spring-rod, substantially as set forth.

JAMES A. PEOPLES.

Witnesses:

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