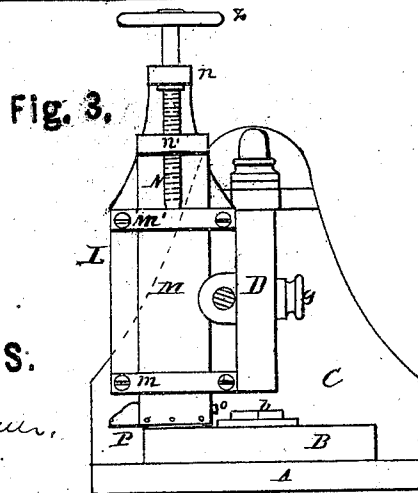
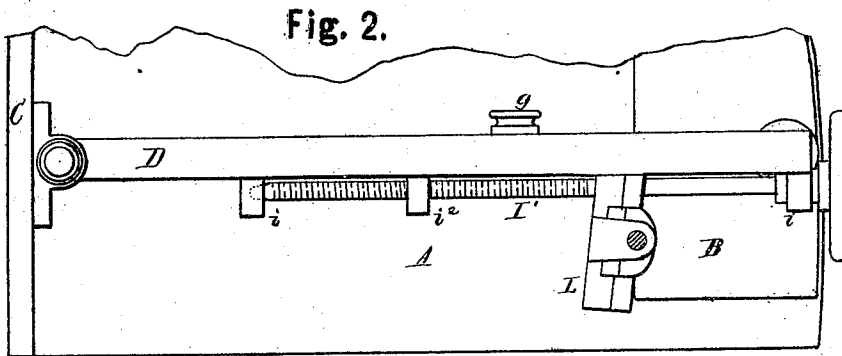
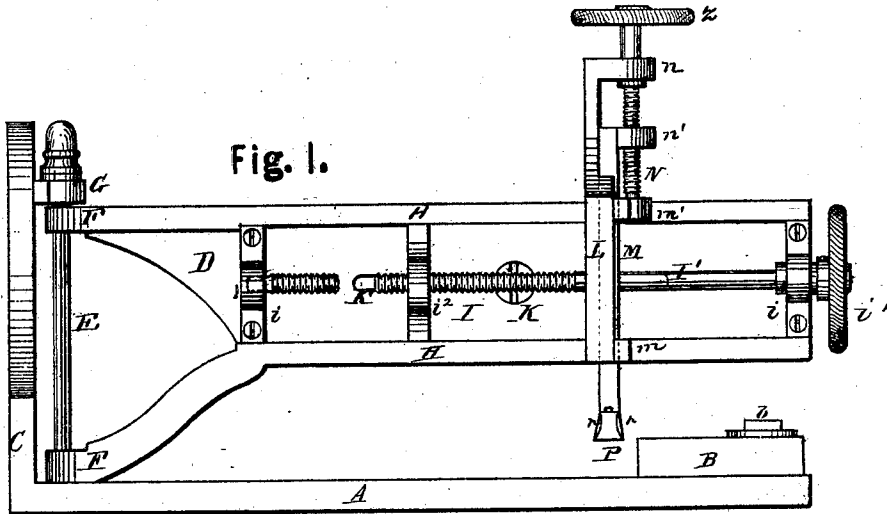


I. S. MOON.

Improvement in Machines for Cutting Felloes.

No. 131,292.

Patented Sep. 10, 1872.



WITNESSES:

Geo. Uphauer,
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UNITED STATES PATENT OFFICE.

ISAAC S. MOON, OF BENNINGTON, VERMONT.

IMPROVEMENT IN MACHINES FOR CUTTING FELLIES.

Specification forming part of Letters Patent No. 131,292, dated September 10, 1872.

To all whom it may concern:

Be it known that I, ISAAC S. MOON, of Bennington, in the county of Bennington and State of Vermont, have invented a new and valuable Improvement in Wood-Working Machines called a Felly-Cutter; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my invention. Fig. 2 is a top view of my invention. Fig. 3 is an end view of my invention.

My invention has relation to machines for making wheel-fellies; and it consists in the construction and novel arrangement of an adjustable knife and the actuating and adjusting devices connected therewith, whereby fellies of various sizes may be cut directly from solid blocks or planks.

Referring to the accompanying drawing, A designates the horizontal bed of my improved felly-cutter, to the forward end of which is secured, by means of a clamping-bolt and nut, *b*, the block or plank B, from which the fellies are to be cut. The rear end of the bed A has an upright back, C, to which is hinged a horizontal beam, D, by means of a vertical shaft or pin, E, passing through the arms F, bracket G, and into a socket formed in the bed A. The upper and lower edges of the beam D are provided with flanges or guides H, between which is arranged a sliding plate, I. The beam is also provided with boxes or bearings, *i*, to hold the set-screw shaft I', which is furnished with a hand-wheel, *i'*, and passes through the screw-bearing *i*² on one end of the plate I. By the moving of this screw-shaft the plate I and its attachments are adjusted lengthwise of the beam. A set-screw, K, passes from the plate I through a horizontal slot, K', in the beam D, and is furnished with an internally-threaded cap, *g*, by means of which the plate I may be rigidly secured at any point to which it is adjusted. To the forward end of the plate I is attached a standard, L, having a vertical rectangular channel cut in its face, and holding therein a vertically adjustable knife-bar, M, supported by means of transverse plates *m m'* secured to the walls of said channel. N designates a vertical set-screw shaft, having its fixed bearings in an arm, *n*, projecting from

the top of the standard L and the plate *m'*. The threaded part of said shaft works in a lug, *n'*, projecting from the top part of the knife-bar M. Upon the top of said shaft is a hand-wheel, *z*, by turning which the knife-bar may be adjusted to any point required in feeding the knife to the block or in withdrawing it therefrom. In the lower end of the knife-bar is formed a chamber or recess to receive the shank *o* of the knife, which, being inserted, is secured by means of a bar fastened by rivets. The head or cutting part of the knife P is of a triangular form, having a horizontal base and a beveled face. The angle of the face and base is keenly sharpened so as to pass easily through the wood. At the sides of the face rise sharpened flanges *p*, which serve to sever the felly from the block at the sides. The sides of the knife-head are slightly beveled, converging toward the back part of the head in order to allow the knife to pass through the wood more easily, and especially when being withdrawn. The knife is made to cut by swinging the beam D, and at every movement of the latter toward the block produces a felly.

In cutting fellies of any determinate size the knife is adjusted vertically in feeding it to the block. The convexity of the fellies diminishes as the knife is adjusted lengthwise of the beam D, and suits wheels of increased diameter.

The standard L, it will be observed, is arranged in slight oblique relation to the beam, so that the line of the front cutting-edge of the knife shall coincide with a line drawn from the axis of the beam and thus enter the wood in the exact direction required.

What I claim as new, is—

1. The improved felly-cutter, having the hinged beam D, horizontally adjustable plate I, adjusting-screw I', standard L, knife-bar M, knife P, and adjusting-screw N, arranged and operating substantially as described.

2. The hinged beam D, flanged at H, and provided with the set-screw I' and slot K', in combination with the standard L holding the adjusting-screw N and the knife-bar M, all substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: ISAAC S. MOON.

A. P. CHILDS,
JAMES B. MEACHAM.