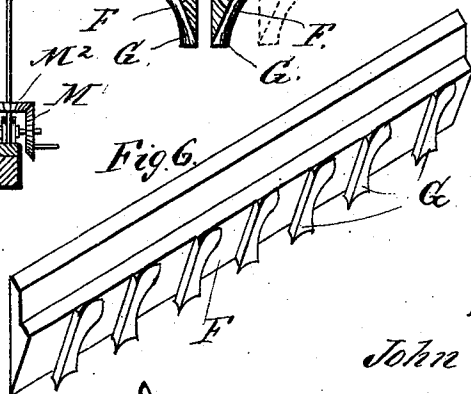
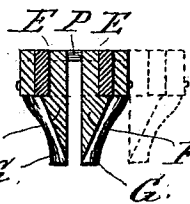
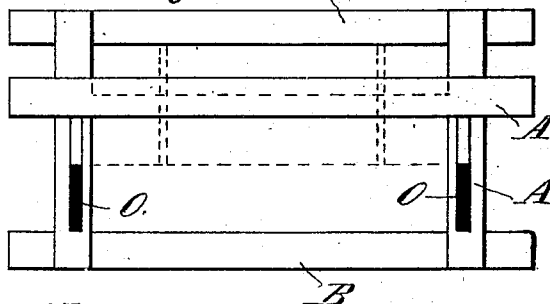
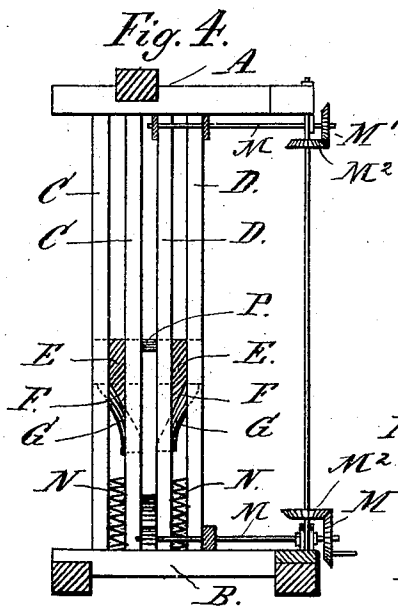
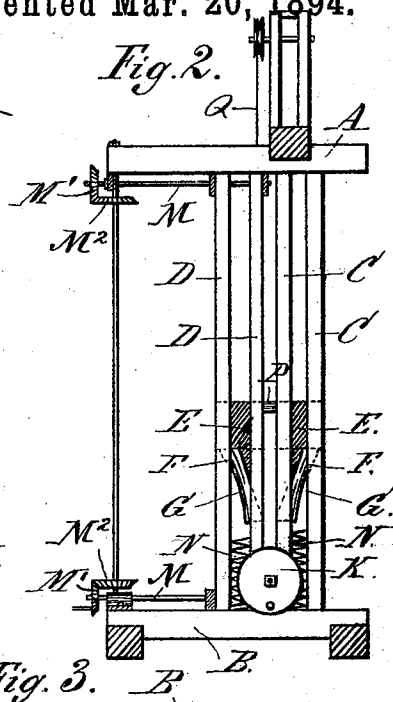
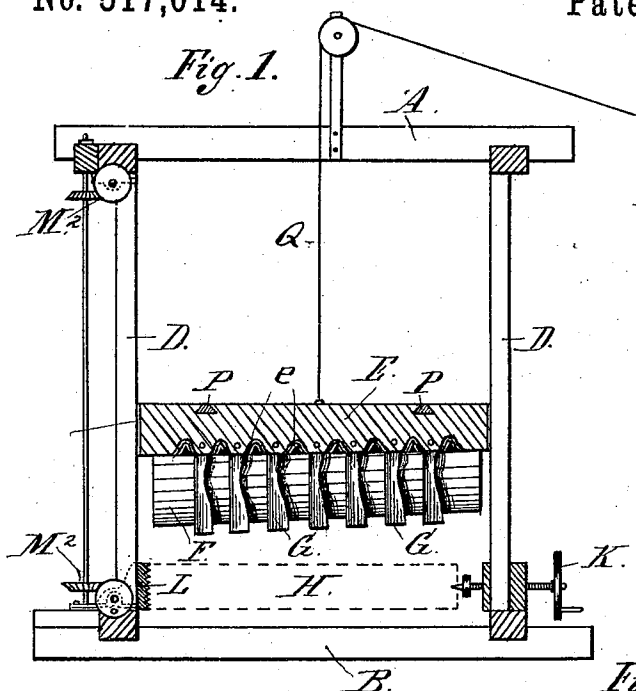


(No Model.)

J. A. ORR.
RAILROAD TIE HEWER.

No. 517,014.

Patented Mar. 20, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN ARMSTRONG ORR, OF FLORENVILLE, LOUISIANA.

RAILROAD-TIE HEWER.

SPECIFICATION forming part of Letters Patent No. 517,014, dated March 20, 1894.

Application filed September 19, 1892. Renewed January 8, 1894. Serial No. 496,187. (No model.)

To all whom it may concern:

Be it known that I, JOHN ARMSTRONG ORR, a citizen of the United States, residing at Florenville, in the parish of St. Tammany and State of Louisiana, have invented certain new and useful Improvements in Railroad-Tie Hewers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in a railroad tie hewer, and its novelty will be fully understood from the following description and claims, when taken in connection with the annexed drawings, and the object of my invention is to provide a device for hewing two sides of a railroad tie at one operation. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view. Fig. 2 is a right-handed side end view. Fig. 3 is a top view of frame showing slots in frame for moving slide. Fig. 4 is a left-handed side end view. Fig. 5 is an end view of knives and cutters. Fig. 6 is a perspective view of one of the cutters with the hewing blades.

Similar letters refer to similar parts throughout the several views.

In the drawings A refers to a top frame; B, the base; C, a stationary guide; D, a movable guide; E, a frame composed of two parts one of which has a vertical movement and the other a vertical and side movement. Attached to frame E are blades F running entire length of frame; also metal cutters G, which project a few inches below blades F. The guides D are provided with horizontal shafts M having a pinion M' meshing with a gear wheel M² upon the vertical shaft M³ so as to enable the guides D to be moved back and forth,—thus moving one set of cutters and blade a sufficient distance to enable a tie H to be placed in position, as shown in Fig. 1.

K shows a set screw and L a toothed jaw against which one end of the tie is held in position. P are cross pieces for connecting the two portions of the frame together. The ends of the cross pieces are rigidly attached to the portion of frame E which has a verti-

cal movement, and while the other ends of said pieces rest loosely in openings in portion of frame E which has both a vertical and side movement, and as one of the parts of frame E is moved to the side by means of the gear wheels and pinions, the cross pieces P do not move but the side movable frame is gradually withdrawn from the cross pieces, until only a few inches of the pieces P remain connected in openings of movable frame, and when the guides D are moved back to the position shown in Fig. 4, the cross pieces P occupy the position shown in Figs. 1 and 4.

N are springs.

Q is a rope attached to both of the parts of frame E, and by means of which the frame E is raised or lowered in a similar manner to a pile driver. The outer sides of the frame E are cut out at e to allow the chips free passage from the cutters and blades.

In practice the timber cut for a tie is placed in the position shown by H,—the guides D being moved in such a manner as to permit the tie to be set in the position shown in Fig. 1, and the parts E are raised and permitted to fall, and as the parts E descend the cutters G hew each side of the tie in advance of the cutters F which cut and smooth off each side of the tie, and as each tie is hewn and removed another is placed in position, and in this manner both sides of a tie are hewn at one operation.

Having described my invention and the manner in which the same is or may be carried into operation, I would say in conclusion that I do not limit myself to the precise details shown in illustration, as the same may be varied to some extent; but

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

1. The combination with a railroad tie hewer, the frame E, the cross pieces having one of their ends rigidly attached to the portion of said frame having a vertical movement, and the other ends resting loosely in the portion of the frame having both a vertical and horizontal movement, the blades, and the cutters secured to each of said frame portions, substantially as set forth.

2. In a railroad tie hewer, the guides D, the frame E formed in two portions, the cross

pieces P rigidly secured to one of said portions and loosely secured to the other of said portions, the cutters having blades extending below their cutting edge so that the blades
5 will hew in advance of the cutters, combined with the vertical shaft having gear wheels, the horizontal shafts attached to the said guides and provided with a pinion engaging the said gear wheels whereby the guides are

moved back and forth, substantially as and 10 for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN ARMSTRONG ORR.

Witnesses:

JAS. M. GIVENS,
RICARDO DEE.