

No. 780,248.

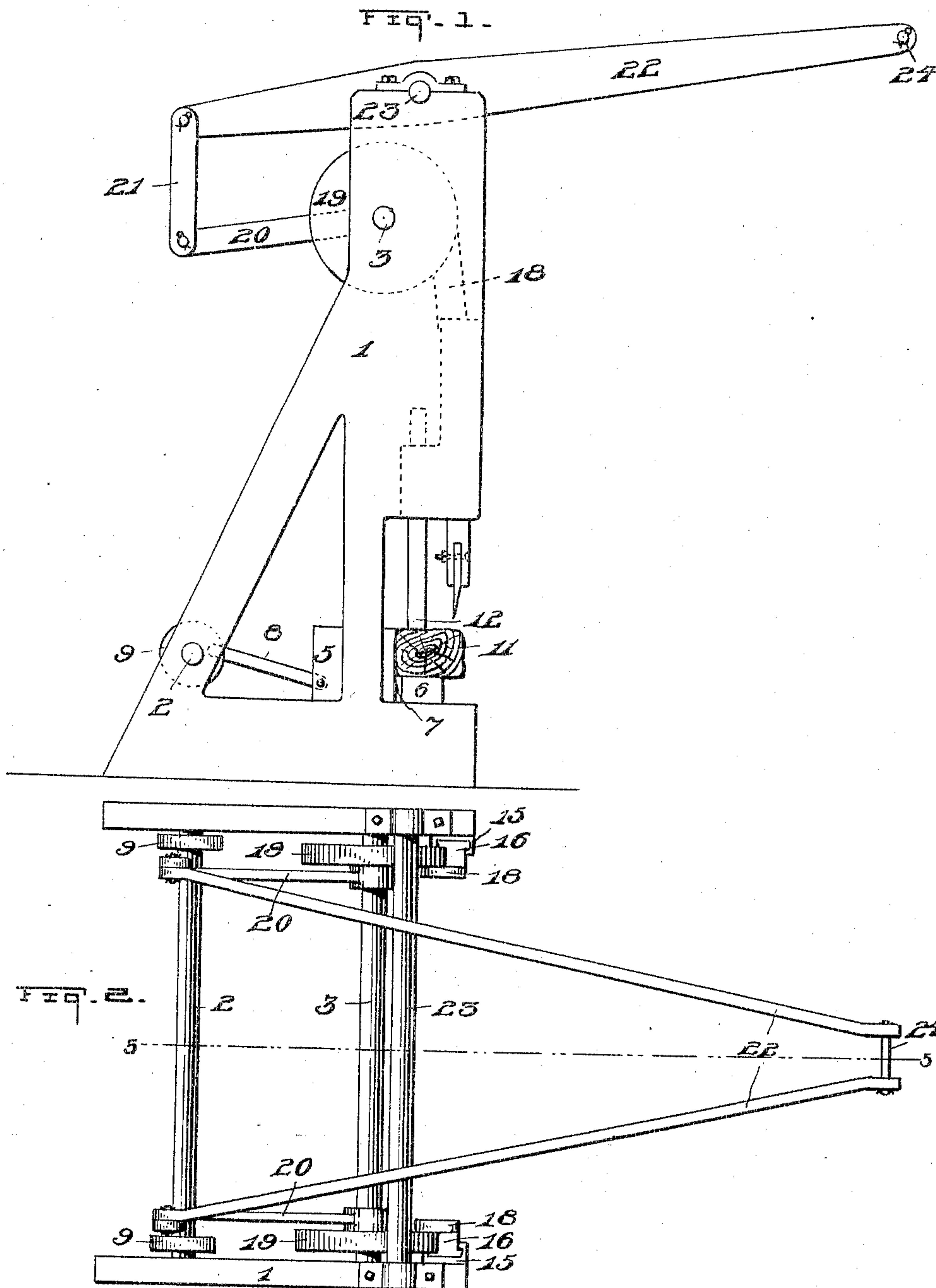
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J. C. WILSON.

RAILWAY TIE HEWING MACHINE.

APPLICATION FILED DEC. 15, 1903.

2 SHEETS—SHEET 1.



*Witnesses;*

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# UNITED STATES PATENT OFFICE.

JOHN C. WILSON, OF BURGETTSTOWN, PENNSYLVANIA.

## RAILWAY-TIE-HEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 780,248, dated January 17, 1905.

Application filed December 15, 1903. Serial No. 185,203.

*To all whom it may concern:*

Be it known that I, JOHN C. WILSON, a citizen of the United States of America, residing at Burgettstown, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Tie-Hewing Machines, of which the following is a specification.

This invention relates to woodworking machinery, and particularly to that class thereunder designed for use in trimming cross-ties and other heavy timbers.

The object of the invention is to provide novel means manually operated for squaring in cross-section a tie or other wooded beam.

An object of the invention is to produce a beam-trimmer of the character noted which will possess advantages in points of efficiency and utility, proving at the same time comparatively inexpensive to manufacture.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a machine embodying the invention. Fig. 2 is a top plan view thereof. Fig. 3 is a front view of the machine with the operating-handles in section. Fig. 4 is a horizontal section on the line 4-4 of Fig. 3.

In the drawings, 1 denotes a suitable frame carrying transversely-disposed shafts 2 and 3. The base of the frame has a guideway on each side, as indicated at 4, in each of which a carriage or supporting-block 5 is slidable. An end of the guideway has a horizontally-disposed bearing-surface 6, on which a beam to be trimmed rests. A vertically-disposed surface 7 is formed on the block 5, against which the back edge of the beam rests in order that the said beam may be squared when in contact with the two surfaces 6 and 7. Guide-clips 6' and 7' for the top of the block 5 are formed on the frame 1.

The carriage is reciprocated by means of the links 8, which are pivotally connected to the said carriage and to the disks 9, carried on the shaft 2. The shaft may be partially rotated in any suitable manner, either automatically

or manually; but I have shown in Fig. 4 a crank-handle 10, which may be used in this connection, though of course I do not wish to be limited to this particular means of operation.

When the carriage is projected to bring the beam 11 under a knife, (to be hereinafter described,) the said beam is in a line with the clamp-bars 12, which are slidable in guides 13, formed integral with the frame. Any preferred means may be employed for retaining the clamping-bars in any adjustment therein, it being understood that the lower ends of each of the said bars impinge the beam or cross-tie on the carrier to retain the said cross-tie against displacement when the knife acts thereon.

It is to be understood that before the carriage receives its reciprocatory motion the clamping-bar must be released from the cross-tie.

Suitable guides 15, one on the inner surface of each of the two sides of the frame, have a link 16 slidable therein, the said links carrying a horizontally-disposed blade-clamp 17. Another link, 18, is pivoted to each link 16 and has its upper end pivoted to a wheel 19 on the shaft 3. The wheels 19 are partially rotated with the shaft 3 through the medium of the arms 20, which are attached to the shaft, the links 21, pivoted to the outer ends of the arms, and the levers 22, which are mounted on a shaft 23 at the top of the frame. The handle 24, connecting the outer ends of the two levers 22, is grasped by the operator and pulled downward. This action results in the elevation of the opposite end of the lever and the elevation of the outer end of the arm 20, which results in rotating the wheel 19 in the direction of the arrow shown in Fig. 5. The rotation of the wheels 19 acts to depress the cutter through the medium of the links 18 and the heads 16. The clamp 17 carries the knife 25<sup>a</sup>.

In operation the beam 11 is placed upon the bearing-surface 6 of the guideway 4, and by the partial rotation of the shaft 2 the beam is brought to the proper position for trimming, where it is held against movement by the clamp 12. By the partial alternate rotation

of the shaft 3 the cutter engages and trims the beam, after which the clamp 12 is released and the beam withdrawn by an opposite rotation of the shaft 2.

5 Having fully described the invention, what I claim as new, and desire to secure by Letters Patent, is—

10 In a hewing-machine, a frame, cutting means vertically movable in the frame, guides formed at the base of the frame on opposite sides, said guides having horizontally-bearing surfaces on one end adapted to support a beam, blocks slidable in the guides, said blocks having ver-

tical bearing-faces adapted to contact with the beam on the bearing-surface of the guides, 15 guide-clips secured to the frame and engaging the tops of the sliding blocks, means on the frame for clamping the beam to the bearing-surfaces of the guides.

In testimony whereof I affix my signature, in 20 the presence of two witnesses, this 14th day of December, 1903.

JOHN C. WILSON.

Witnesses:

JOHN NOLAND,  
J. P. APPLEMAN.