

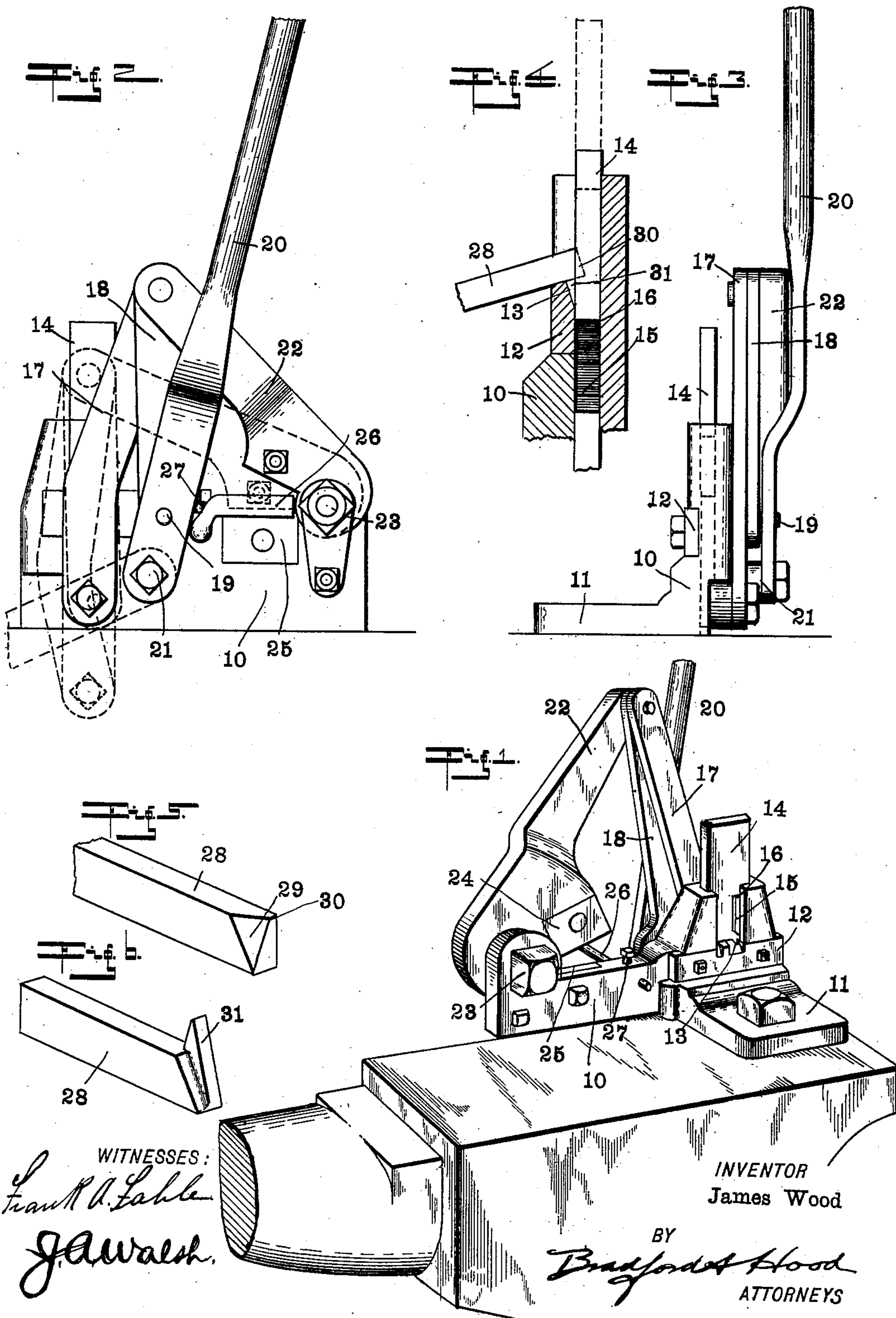
No. 713,268.

Patented Nov. 11, 1902.

J. WOOD.
TOE CALK MACHINE.

(Application filed Apr. 19, 1902.)

(No Model.)



WITNESSES:

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JAMES WOOD, OF NOBLESVILLE, INDIANA, ASSIGNOR OF ONE-HALF TO
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TOE-CALK MACHINE.

SPECIFICATION forming part of Letters Patent No. 713,268, dated November 11, 1902.

Application filed April 19, 1902. Serial No. 103,670. (No model.)

To all whom it may concern:

Be it known that I, JAMES WOOD, a citizen of the United States, residing at Noblesville, in the county of Hamilton and State of Indiana, have invented certain new and useful Improvements in Toe-Calk Machines, of which the following is a specification.

Blacksmiths buy in the open market horse-shoe-blanks of predetermined sizes, to which the toe-calks have not yet been attached, and these toe-calks are welded to the blanks by hand.

The object of my invention is to provide a simple and efficient machine which for convenience may be attached directly to an anvil in position where it may be readily operated, the said machine being of such character that bar steel or iron of a cross-section suitable for toe-calks may be operated upon by the machine in such manner as to produce thereon a projecting finger which may be driven into a previously-formed heated horse-shoe-blank in order to temporarily hold the calk in position while the calk and shoe-blank are being heated and during the process of welding the calk to the blank. The machine which I have designed is also provided with a shear by means of which the calk-piece after it has been provided with the projecting finger aforementioned may be cut to a desired and proper length.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of my machine attached to an anvil. Fig. 2 is a rear elevation; Fig. 3, a side elevation; Fig. 4, a sectional detail through the forming-die and cooperating plunger; Fig. 5, a perspective view of one end of a bar from which the calk is to be formed; Fig. 6, a perspective view of a calk-piece which has been operated upon by my machine and is in condition to be attached to a shoe-blank preparatory to the welding operation.

In the drawings, 10 indicates a suitable body having a projecting ear 11, by means

of which the machine may be bolted to an anvil, if desired. Detachably secured to body 10 is a die 12, which is provided with a socket 13 of the form of the desired finger which is to be produced upon the calk. Vertically reciprocable through body 10, adjacent die 12, is a forming-plunger 14, through which is formed an opening 15, the said opening thus forming an upper shoulder 16, the purpose of which will appear. Pivoted to the lower end of plunger 14 is a link 17, to the upper end of which is pivoted a link 18, the said link 18 being pivoted at its lower end at 19 to an operating-lever 20, which is pivoted at 21 to the body 10. Pivoted to the upper ends of levers 17 and 18 is the outer end of a shear-jaw 22, which is pivoted at 23 to the body 10. The shear-jaw 22 carries a shear-blade 24, which coöperates with a suitable shear-blade 25, carried by body 10. Mounted in body 10 is a gage 26, which is adjustable toward and from the shear-blades by suitable means, such as a set-screw 27.

In operation a suitable bar 28 is heated at one end and one corner thereof initially flattened, as 29, by means of a hammer. The operator inserts the corner 30 into the opening 15 of plunger 14, as shown by dotted lines in Fig. 4, the main body of the bar resting on the upper edge of the bar 12. While the bar 28 is yet hot the operator swings lever 20, which through links 18 and 17 forces plunger 14 downward, so as to bring shoulder 16 thereof in engagement with the projecting corner 30 of the bar 28 and force said corner downward into the groove 13 of the die 12, thus forming the finger 31 upon the end of the bar 28. Plunger 14 is then returned to its initial position and the bar 28 withdrawn and projected between the shear-blades 24 and 25, when by again operating lever 20 the shear will operate to cut the bar 28 to the proper length, so as to form the calk, as shown in Fig. 6. The toe-calk thus formed is such that the finger 31 thereof may be driven into a previously-formed heated shoe-blank, said

finger operating to temporarily hold the calk in position while the parts are being heated and finally welded together.

I claim as my invention—

- 5 In a toe-calk machine, the combination with a main body, of a finger-forming die carried thereby, a plunger adapted to coöperate with said die, said plunger being provided with a slot 15 into which the end of the material to

be operated upon may be thrust over the die, 10 and means for operating the plunger.

In witness whereof I have hereunto set my hand and seal, at Noblesville, Indiana, this 14th day of April, A. D. 1902.

JAMES WOOD. [L. S.]

Witnesses:

S. B. MOTT,
D. M. BROCK.