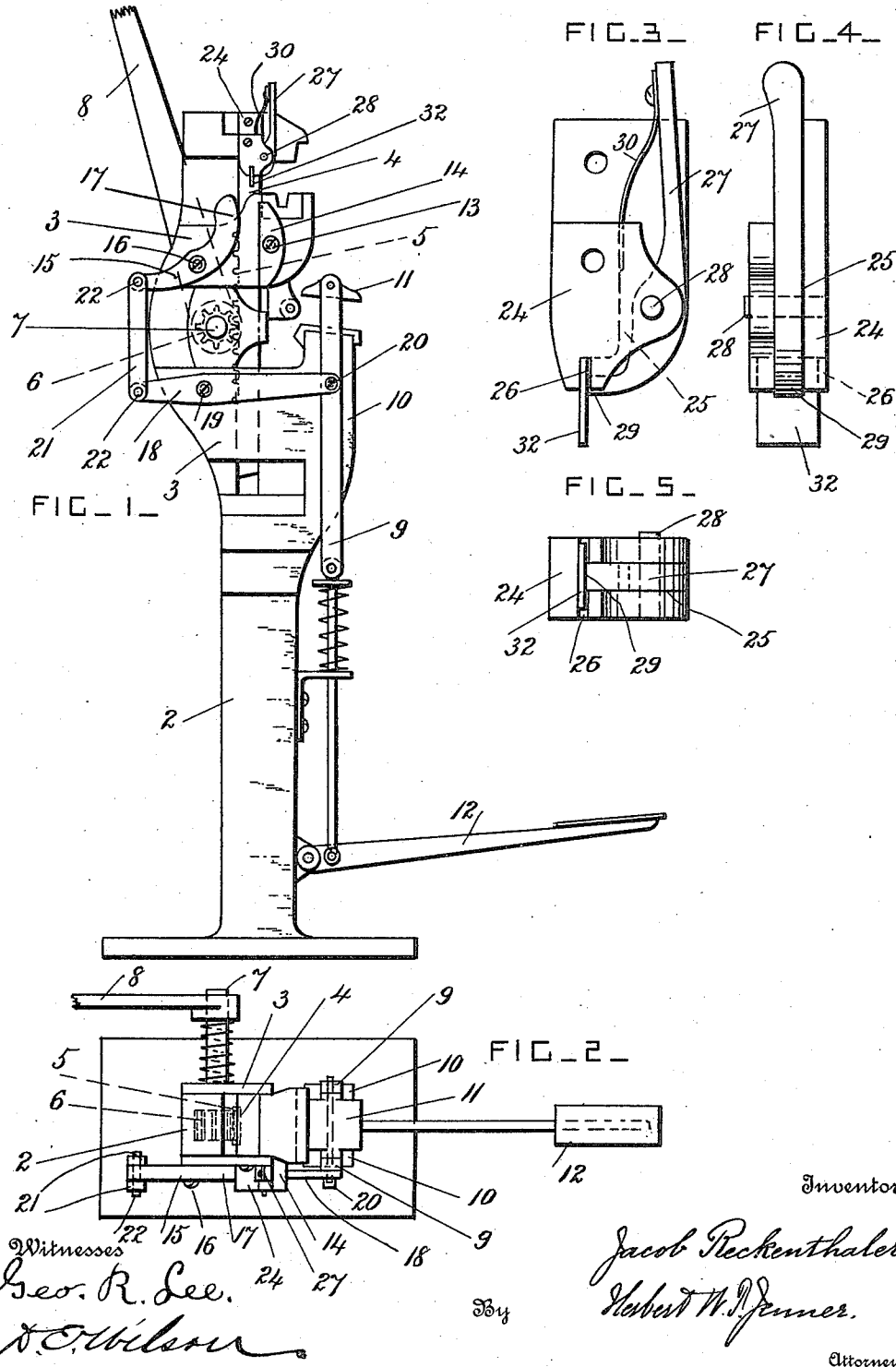


J. RECKENTHALER.
 CALK PLUGGING MACHINE.
 APPLICATION FILED APR. 17, 1912.

1,060,124.

Patented Apr. 29, 1913.



UNITED STATES PATENT OFFICE.

JACOB RECKENTHALER, OF CAMPIA, WISCONSIN.

CALK-PLUGGING MACHINE.

1,060,124.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed April 17, 1912. Serial No. 691,456.

To all whom it may concern:

Be it known that I, JACOB RECKENTHALER, a citizen of the United States, residing at Campia, in the county of Barron and State of Wisconsin, have invented certain new and useful Improvements in Calk-Plugging Machines; and I do hereby 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.

This invention relates to machines for forcing steel calk plugs into the heel end portions of horse shoes; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of a machine constructed according to this invention. Fig. 2 is a plan view of the same. Figs. 3, 4 and 5 are side, front and lower end views, respectively, of the clamp for holding the steel plug.

A horse shoe calk machine of any approved construction is used in carrying out this invention, and its frame 2 is provided with guides 3 in which a slide 4 is reciprocated vertically.

The machine shown in Patent No. 1,032,703, issued to me, is preferably used in carrying out this invention.

The slide may be reciprocated by any approved means, such as a toothed rack 5 on the slide which is engaged by a toothed pinion 6. The pinion is secured on a shaft 7 journaled in the frame, and having an operating lever or handle 8 connected to it.

Slide bars 9 are slidable vertically in guides 10 at the front part of the machine, and have a clamping jaw 11 at their upper ends which is used to hold the horse shoe when its end is being bent around to form the calk. A treadle 12 and a spring, or other approved means is provided for reciprocating the slide bars.

A clamping jaw 14 is secured by a bolt or pin 13 on one side of the frame 2, and 15 is a clamping lever pivoted to the frame 2 by a pin 16, and provided with an eccentric clamping jaw 17 arranged opposite the stationary clamping jaw 14.

The clamping jaws are arranged against one vertical side portion of the frame, and the side operates as a positioning stop for the horse shoe to be placed against, so that the shoe may be held in a suitable position

to receive the steel plug. The clamping jaw 17 projects above the pivot 16 and as this jaw is cam-shaped it is tightened automatically upon the horse shoe when the steel plug is pressed downwardly into the end portion of the horse shoe.

The stationary jaw may be adjusted pivotally on its bolt to suit the clamping jaw 17, and the stationary jaw is then secured fast to the frame. A lever 18 is pivoted to the frame 2 below the clamping jaws 14 and 17, by a pin 19, and one end of the lever 18 is pivoted to one of the slide bars 9 by a pin 20. Links 21 are pivoted by pins 22 to the rear end portions of the clamping lever and the operating lever 18.

A plug-holder bracket 24 is bolted to one side of the frame 2, above the clamping jaws 14 and 17, and is provided with a long vertical slot 25, and a short cross-slot 26 at the lower part of the slot 25. A clamping lever 27 is pivoted by a pin 28 to the bracket 24, and is arranged in the long slot 25, and this lever has a projection 29 on its lower end which normally projects into the cross-slot, as shown in Fig. 4. A spring 30 is provided for holding the projection in the cross-slot, and any other approved form of spring may be used besides the form shown.

The steel calk plug consists of a thin plate of steel 32. This plug is held in the cross-slot 26 by the spring-pressed lever 27 and its projection. The horse shoe is made with long end portions, which are subsequently bent around at an angle to the main portion of the shoe to form the calks, and the steel calk plugs are inserted in the end portions of the shoe before they are bent around. The shoe is heated and one end portion of it is clamped in a vertical position between the jaws 14 and 17 by means of the treadle and lever mechanism. The slide 4 is then depressed, by means of the hand lever, and the steel plug is forced endwise into the end portion of the shoe. The plug is then released from the spring pressed lever which closes the slot, and the slide is again depressed to drive the steel plug into the shoe until the end of the plug is flush with the end of the shoe. The shoe is then released, and the steel plug is welded in place, and the end portion of the shoe is bent around to form the calk at a single operation.

What I claim is:

1. The combination, with a frame having

- a vertical side portion, and a slide movable in the said frame; of a stationary clamping jaw secured against the said side portion, a clamping lever pivoted against the said side portion and having at one end a cam-shaped jaw which projects above its pivot and works opposite the stationary jaw, means for operating the clamping lever to grip and release a horse shoe, a plug-holder secured to the slide above the said jaws, and means for operating the slide to force a plug into the end portion of the shoe prior to bending said end portion to form a calk.
2. The combination, with a frame having a vertical side portion, and a slide movable in the said frame; of a stationary clamping jaw secured against the said side portion, a clamping lever pivoted against the said side portion and having at one end a cam-shaped jaw which projects above its pivot and works opposite the stationary jaw, an operating lever pivoted to the frame below the clamping lever, a connection between the other end of the clamping lever and one end of the operating lever, a treadle mechanism operatively connected with the other end of the operating lever, a plug-holder secured to the slide and arranged above the jaws, and means for operating the slide to force a plug into the end portion of a shoe prior to bending said end portion to form a calk.
- In testimony whereof I have affixed my signature in the presence of two witnesses.
- JACOB RECKENTHALER.
- Witnesses:
R. M. WHITAKER,
OSCAR G. JENSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."