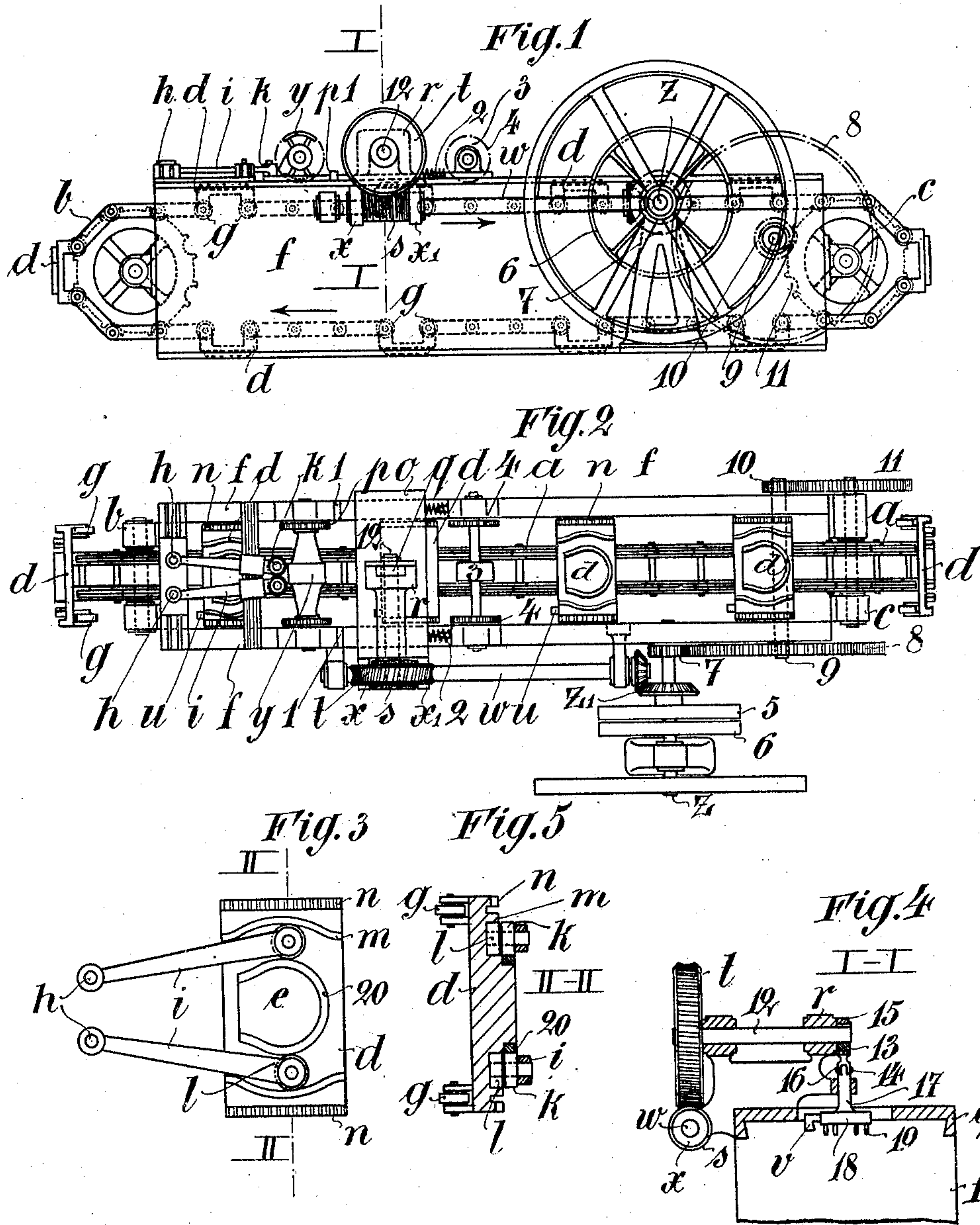


H. VOSBERG.
 APPARATUS FOR THE PREPARATION OF HORSESHOES.
 APPLICATION FILED JUNE 16, 1906.

983,522.

Patented Feb. 7, 1911.



Witnesses
[Signature]
[Signature]

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APPARATUS FOR THE PREPARATION OF HORSESHOES.

983,522.

Specification of Letters Patent.

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Application filed June 16, 1906. Serial No. 321,973.

To all whom it may concern:

Be it known that I, HEDDO VOSBERG, a subject of the Emperor of Germany, residing at Leer, Germany, have invented a new original Improvement in Apparatus for the Preparation of Horseshoes, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof.

The object of this present invention relates to a machine for preparing horse shoes.

In the accompanying drawing, in which I have illustrated my invention like letters of reference refer to like parts throughout the different views.

In said drawings Figure 1 shows a side-view of the machine. Fig. 2 shows a plan-view of the machine. Fig. 3 shows a plan-view of a working table drawn on an enlarged scale. Fig. 4 shows a section on lines I—I of Fig. 1 through the punching device also drawn on an enlarged scale. Fig. 5 shows a section on lines II—II of the working table.

a represents an endless chain which can be moved around two drums *b* and *c* in the direction of the arrow indicated in Fig. 1. The chain carries plates *d* forming the working tables and molds *e* provided thereon in equal distances from each other.

f is the machine frame.

g are rollers for the guiding of the working tables.

Turnably mounted on the frame *f* are, by means of pivots *h*, two arms *i*, providing at their ends rollers *k* and *l*. The lower rollers *l* rest against guide rails *m* while the upper rollers *k* in the manufacturing of the horse shoe cause a bending of the shoe around the form *e*.

The working table *d* provides on its two sides racks *n*. In the frame *f* I mount a shaft for the roller *y* on which I locate toothed wheels *p* engaging the racks *n* of the table. As soon as the working table passes below the roller the iron rod is smoothed and stamped by said roller.

The machine is provided with a punching device having a sliding carriage *q* provided with a bearing *r* in which I mount the shaft 12 and the driving shaft *w*. The shaft 12 carries a worm wheel *t* engaging a worm *s* mounted on the shaft *w*. The other end of the shaft 12 is provided with an eccentric 13 around which catches the bow 15 with its rod 14. The fork formed end 16 of the

rod 14 is engaged by a rod 17 of a plate 18 the latter one being provided with pins 19 serving for the punching of the horse shoe. While the shoe is being punched there is no relative movement between the table and the punching apparatus as a sliding of the sliding carriage takes place during the punching whereby a projection *u* catches behind a projection *v* of the plate 18 moved downward by means of the eccentric. The worm *s* rests between the bearings *x*, *x*¹ connected to the sliding carriage. The driving of the worm shaft *w* is actuated by the main shaft *z* by means of beveled wheels *z*¹.

The movability of the sliding carriage as well as one of the parts necessary for the punching is limited on one side by a projection 1 mounted on the frame. Springs 2 are located at the other end. The frame *f* further provides a roller 3, the axle of which is provided with teeth 4 which can engage the racks *n*. The roller 3 may be provided with a steel brush.

The driving of the drums *b*, *c* over which the endless chain is guided, can be actuated in any suitable manner. I prefer the one hereafter described and illustrated in the drawing.

Mounted on the main shaft *z* are the driving disks 5 and 6 the latter one being designed to run loosely. The shaft *z* carries besides the toothed wheel 7 engaging the toothed wheel 8. The shaft of this latter wheel 8 causes the driving of the drum *c* by means of the toothed wheels 10 and 11.

The operation of my improved machine is as follows: The iron 20 being placed in front of the form *e* and the machine being set to work is bent by the advancing of the working table around the form *e* to form a horse shoe, as the rollers *k* and *l* run along the guide rail *m* and the form *e*. The working table thereafter passes below the roller *y* in order to flatten the iron, said roller being rotated by means of the toothed wheels engaging the racks *n* of the table. The table is now further advanced until it rests below the punching device. The plate 18 is caught by the projection *v* behind a nose *u* so far until the plate 18 is again raised and the projection *v* releases the nose *u*, whereafter the sliding carriage is moved into its original position by means of springs 2. At last the table with the horse shoe reaches the roller 3 where it is cleaned. The horse shoe is now finished.

What I claim as new and desire to secure by United States Letters Patent is:—

In an apparatus for making horse shoes, the combination of a frame, a pair of rotatable drums journaled therein, an endless chain guided over said drums, a plurality of tables carried by said chain at predetermined distances apart, each table provided with a rack and with a former around which a rod may be bent into shoe form, bending arms pivoted to the frame near one end thereof and in operative relation to the path of movement of the chain and arranged to cooperate successively with each of the formers, a roller for successively flattening

the bent shoes, a nail hole punching device having freedom for a limited bodily movement in the direction of the movement of the chain and a rotary cleaning device, the flattening, punching and cleaning devices each being provided with means engaging the racks of the tables for intermittently operating them.

In witness whereof I have hereunto signed my name this 17th day of May 1906 in the presence of two subscribing witnesses.

HEDDO VOSBERG.

Witnesses:

GOTTFRIED A. K. MERZ,
FRIEDRICH HOYERMANN.