(No Model.)

G. W. WEMPLE.

DEVICE FOR REMOVING CALKS FROM HORSESHOES.

No. 400,531. Patented Apr. 2, 1889.

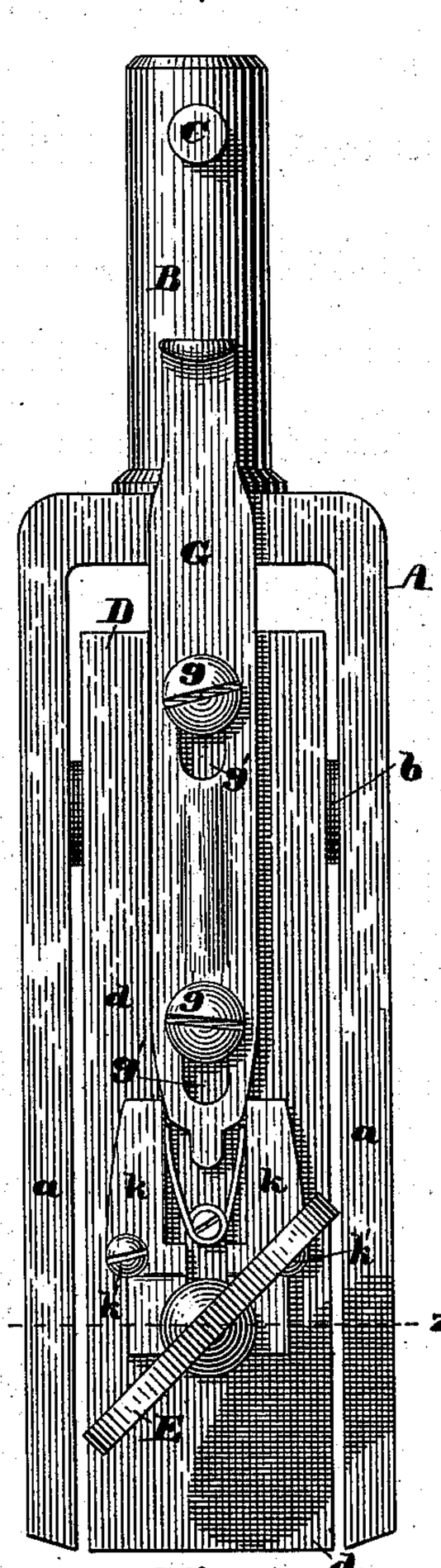

Fig. 1.

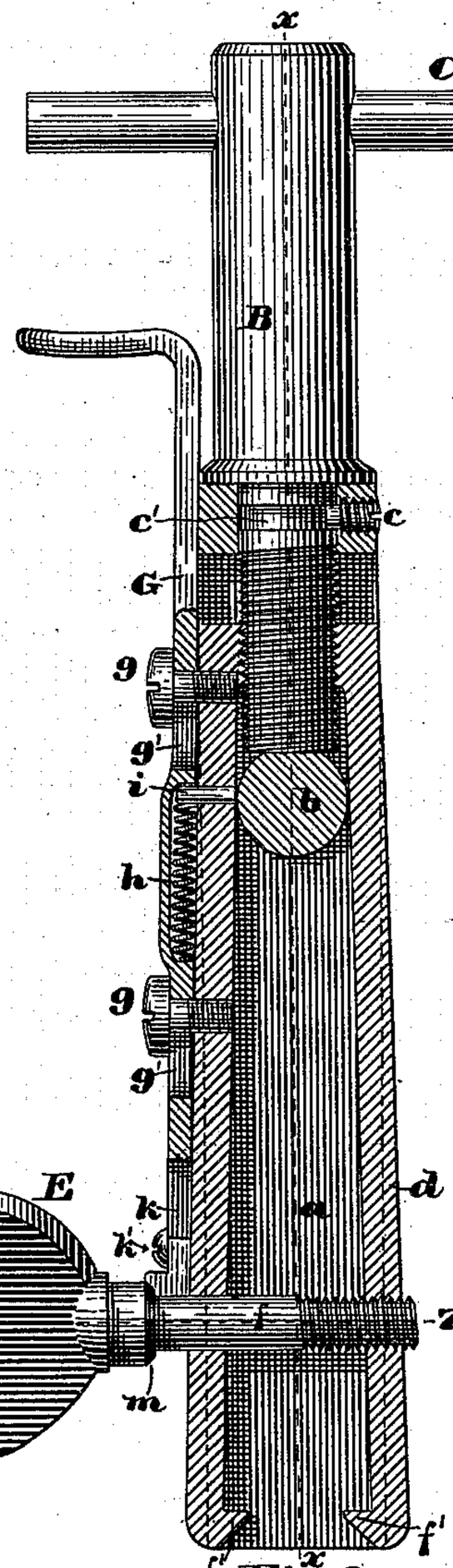

Fig. 2.

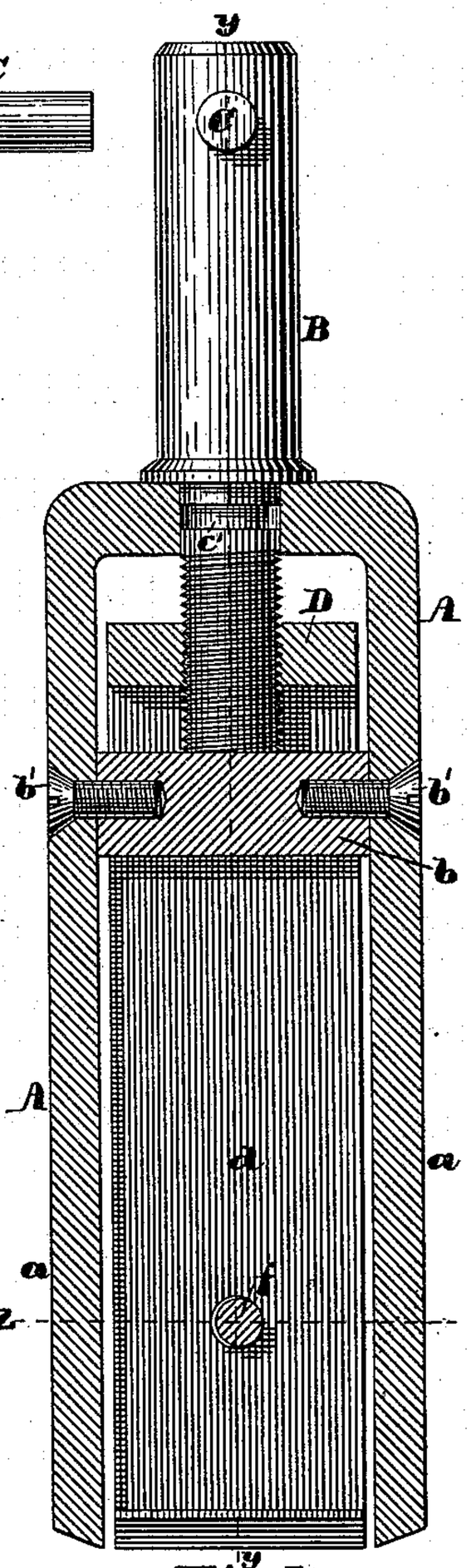

Fig. 3.

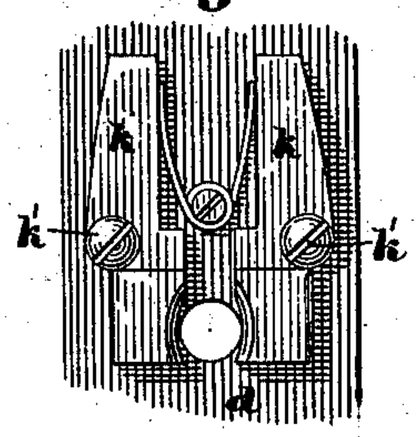

Fig. 5.

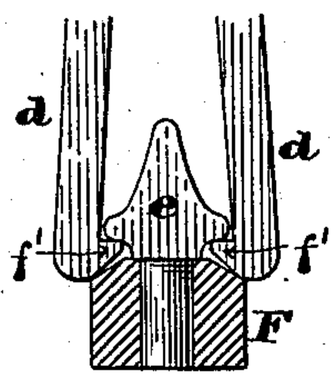

Fig. 6.

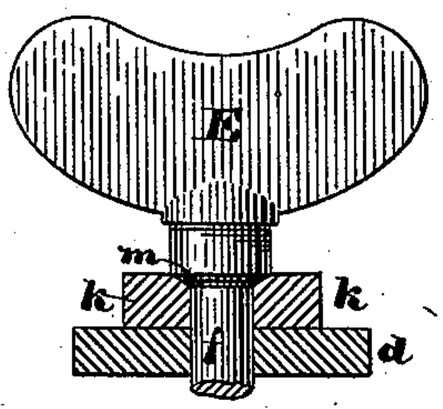

Fig. 4.

Witnesses:
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Frank E. Bray.

Inventor:
George W. Wemple,
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UNITED STATES PATENT OFFICE.

GEORGE W. WEMPLE, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF NINE-TWENTIETHS TO BRAINARD W. CHILD, OF SAME PLACE.

DEVICE FOR REMOVING CALKS FROM HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 400,531, dated April 2, 1889.

Application filed July 2, 1888. Serial No. 278,820. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WEMPLE, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful Device for Removing Calks from Horseshoes, of which the following, taken in connection with the accompanying drawings, is a specification.

Horseshoes are now being manufactured with removable calks provided with a plurality of tenons projecting at right angles from the bases of said calks, which are attached to said shoes by forcing the tenons which form a part of the calk into inclined holes formed in the shoe, thus bending said tenons upon themselves to form a clinch to firmly secure the calk to the shoe; but as yet there has been no ready means of removing a calk when worn so as to be useless preparatory to inserting a new one, and it is to accomplish this which is the object of my invention, which consists in a novel device for removing the calks, which will readily be understood by reference to the description of the drawings, and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents a front elevation of a device embodying my invention. Fig. 2 represents a sectional elevation of the same, the cutting-plane being on line *y y* on Fig. 3. Fig. 3 represents a sectional elevation of the same, the cutting plane being on line *x x* on Fig. 2. Fig. 4 represents a transverse section of one of the jaws, showing the clamping-bolt in elevation, the cutting-plane being on line *z z* on Fig. 2. Fig. 5 represents an elevation of the spring-operated tripping-levers; and Fig. 6 represents a section of a horseshoe with a calk applied thereto, and showing the position of the jaws of my device preparatory to removing the calk from the shoe.

In the drawings, A is a U-shaped frame, having its parallel arms *a a* connected together by the bar *b*, which is interposed between said arms *a a* at a point near the upper end, and is connected to said arms by the screws *b' b'*. In the upper end of the frame A is mounted the spindle B, which is prevented from moving endwise by the set-screw *c*, mounted in said frame, so that its inner end projects into the annular groove *c'*, formed in the periphery of said spindle B. The outer end of the spindle B is provided with a cross bar or rod, C, which serves as a handle with which to turn said spindle for the purpose of raising or lowering the jaw-piece D by the action thereon of the threaded inner end of the spindle B, which engages with a threaded socket in the upper end of said jaw-piece D, which is also U-shaped and straddles the bar *b*, as shown in the drawings.

The jaw-arms *d d* are of spring metal, and when in their normal position are spread sufficiently apart to admit the calk *e* between them, which calk may readily be seized by said jaws by being clamped together by means of the clamping-screw E, the shank *f* of which passes through one of said jaw-arms *d*, and is threaded to engage with a threaded socket in the other arms, all in an obvious manner. The jaw-arms *d d* are provided with ribs *f' f'* upon the inner sides of their free ends, which ribs project beneath the head of the calk *e*, as shown in Fig. 6, in order to get a better hold thereon preparatory to removing the same from the shoe F.

To one of the jaw-arms *d* is secured a bar, G, by means of the screws *g g*, passing through the slots *g' g'* in said bar G into the said arm *d*, so that said bar G may be moved toward the screw E by means of the spring *h*, mounted in a recess in the back side of said bar and pressing against a pin, *i*, secured to said arm *d*, or said arm G may be moved in the opposite direction against the tension of said spring *h*, the bar G being provided with a lateral projection for this purpose. The lower end of said bar G is adapted, when in its normal position, to enter between the upper ends of the levers *k k*, pivoted to the arm *d* at *k' k'*, and retain the lower ends of said levers *k k* in contact with the shank *f* of the screw E. The inner end of the head of the clamping-screw is beveled, as at *m*, which beveled end engages with a corresponding bevel upon the inner sides of the levers *k k*, so that when the screw E is turned in its bearings to clamp the jaws *d d* upon a calk the lower ends of the levers *k k* are forced outwardly as far as they possibly can be forced.

If it is desired to remove the calks from a

shoe while on the horse's hoof, the leg of the horse is grasped in the same manner as when it is desired to place a shoe upon the hoof, and the ends of the arms *a a* are placed upon the shoe, and the jaws *d d* are moved together upon the calk *e* by turning the clamping-screw E, the beveled inner edge of the head at the same time acting upon the levers *k k* to crowd them apart. If now the handle C be turned to operate the threaded spindle B, it is obvious that the jaw-piece D will be slowly moved toward the handle, causing such a strain to be brought to bear upon the calk *e* as to remove it from the shoe, straightening the tenons thereof in the act. Should the horse, however, become impatient before the calk had been removed from the shoe and desire to put his hoof upon the ground, the operator may readily remove the pulling device from the calk by simply moving the bar G toward the handle C, thus withdrawing the end of said bar from between the ends of the levers *k k* and allowing the crowding action of the beveled inner end of the head of the clamping-screw to force the lower ends of said levers *k k* apart, and by this means allow the jaws *d d* to resume their normal positions.

With the foregoing it is believed that the operation and advantages of this device will be fully apparent, and therefore need no further mention.

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

1. In a device for removing calks from horseshoes, the combination of a frame having two standards, the ends of which rest upon the shoe when said device is in use, a jaw-piece mounted in said frame and provided with two jaws, a clamping-screw for clamping said jaws upon the calk, the inner end of the head of said screw being provided with a beveled surface, means for moving said jaw-piece lengthwise of the frame, two spring-actuated levers pivoted to said jaw-piece, and a bar mounted upon said jaw-piece and adapted to slide thereon and engage with said levers to force their inner sides into contact with the shank of the clamping-screw when the calk is being removed from the shoe or to be disengaged from contact with said levers to immediately release the jaws from the calk by moving said bar toward the handle.

2. In a device for removing calks from horseshoes, the combination of a frame having two standards, the ends of which rest upon the shoe when said device is in use, a jaw-piece mounted in said frame and provided with two jaws adapted to spring away from each other, a clamping-bolt for clamping said jaws upon the calk, the inner end of the head of said bolt being provided with a beveled shoulder, and a movable abutment adapted to be interposed between the head of said bolt and one of said jaws when it is desired to clamp said jaws upon the calk, and which may be readily disengaged from contact with said clamping-bolt to allow said jaws to spring away from each other, and thereby release their hold upon said calk.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 23d day of May, A. D. 1888.

GEO. W. WEMPLE.

Witnesses:
WALTER E. LOMBARD,
HERMAN BUERK.