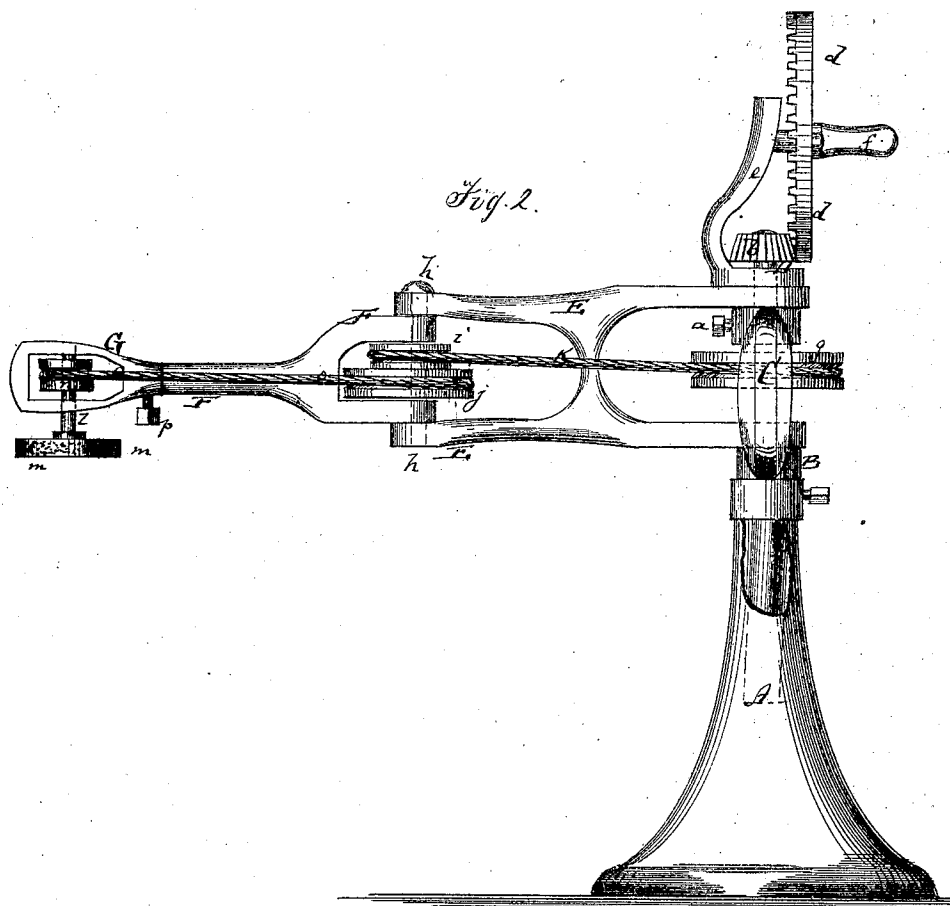
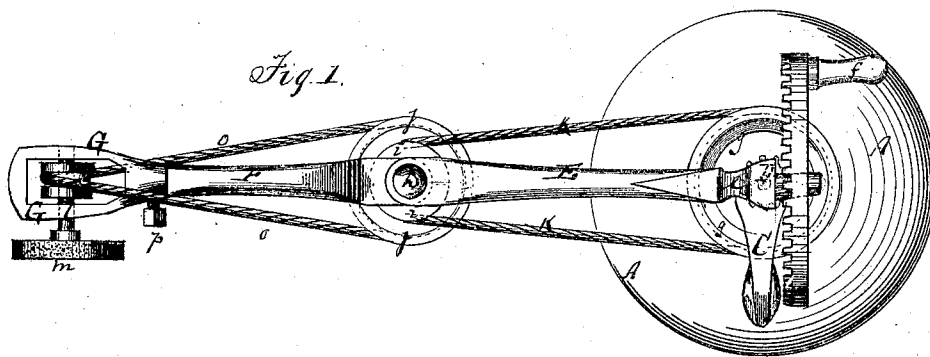


GEORGE W. LANE.

Improvement in Machines for Sharpening Calks.

No. 115,068.

Patented May 23, 1871.



WITNESSES:
J. C. Dietrich.
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UNITED STATES PATENT OFFICE.

GEORGE W. LANE, OF CHICHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN MACHINES FOR SHARPENING CALKS.

Specification forming part of Letters Patent No. 115,068, dated May 23, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. LANE, of Chichester, in the county of Merrimack and State of New Hampshire, have invented a new and Improved Apparatus for Sharpening Horseshoe-Calks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a plan or top view of my improved calk-sharpening apparatus. Fig. 2 is a side elevation of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in that class of machines which are employed for grinding or sharpening the calks of horse-shoes when secured to the animal's feet. The invention consists in the construction and arrangement of certain parts, which adapt the machine for use upon the shoes of animals which are of different heights. These parts are hereinafter described in a general way, in connection with others necessary to form a complete machine, and are specifically claimed.

A in the drawing represents the case of the apparatus, made of suitable form and size, and sufficiently strong to sustain the gearing and other mechanism connected therewith. B is a vertical post carrying a yoke, C, at its upper end. The post is fitted into a socket of the base A and vertically adjustable therein. It can be locked at suitable height by a set-screw, *a*, or its equivalent. In the yoke C are the bearings of an upright spindle, D, which, at its upper end, above the yoke, carries a pinion, *b*. This pinion meshes into the teeth of a gear-wheel, *d*, which is hung to an upper extension, *e*, of the yoke. The wheel D has a crank-handle, *f*, by means of which it can be turned to revolve the spindle D. Upon the spindle D is mounted a pulley, *g*. E is a hor-

izontal frame forked at both ends. One end is fitted to the yoke swinging on the spindle D. The other end carries a short upright spindle, *h*, which has two pulleys, *i* and *j*. A cord, K, connects the pulleys *g* and *i*. By the spindle *h* is also pivoted to the frame E another forked frame, F, which has a cylindrical outer end. To the outer end of the frame F is swiveled a yoke, G, which carries a spindle, *l*. An emery-wheel, *m*, and a pulley, *n*, are mounted upon the spindle *l*, and a cord, *o*, connects the pulleys *j* and *n*. The swivel-frame E can be turned to set the emery-wheel in any suitable position, and can be fastened by a pin or set-screw, *p*.

The belts or cords and pulleys serve to transmit the rotary motion from the gear-wheel *d* to the emery-wheel, and the jointed frame E F permits the same to be moved horizontally in suitable manner. The machine is set up near the horse whose calks are to be sharpened. One person guides the emery wheel along the surface of the calk, while another person or suitable power is employed to rotate the main gear-wheel.

The device can also be used for sharpening saws, and by putting other instruments in the place of the emery-wheel it can be used for other purposes.

I am aware of the patent of Geo. Cowing, issued May 19, 1863, and desire to be understood as claiming nothing therein shown; but

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The swiveled yoke G, carrying the emery-wheel *m* and the vertically-adjustable post B, combined with the frames F, E, C, and A, and gearing *b* and *d*, as herein shown and described, for the purpose specified.

GEORGE W. LANE.

Witnesses:

S. G. LANE,
C. W. MOORE.