C. E. & E. C. LEACH.

SHOE HEEL REDUCING DEVICE.

APPLICATION FILED MAY 8, 1914.

1,114,154.

Patented Oct. 20, 1914.

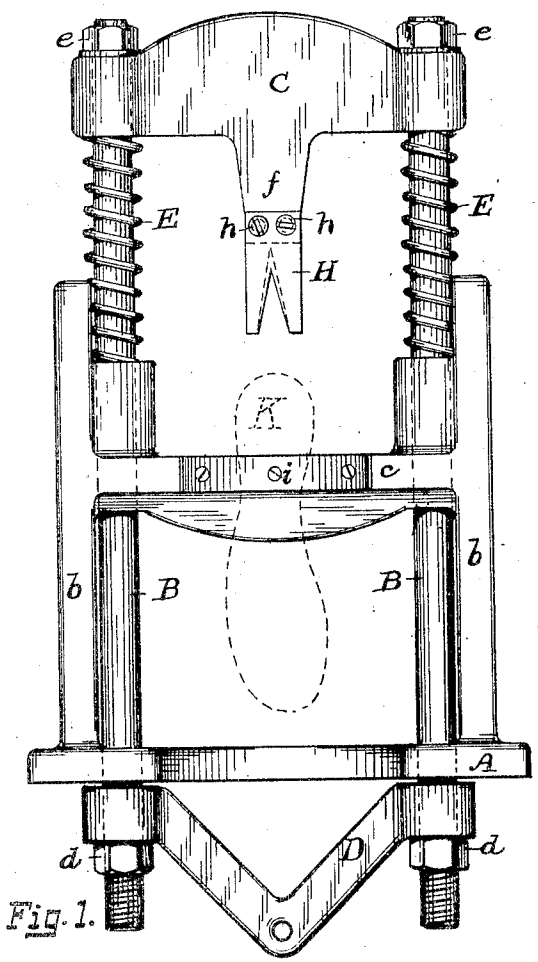


Fig. 1.

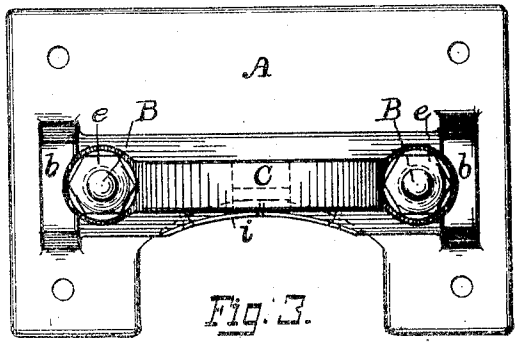


Fig. 3.

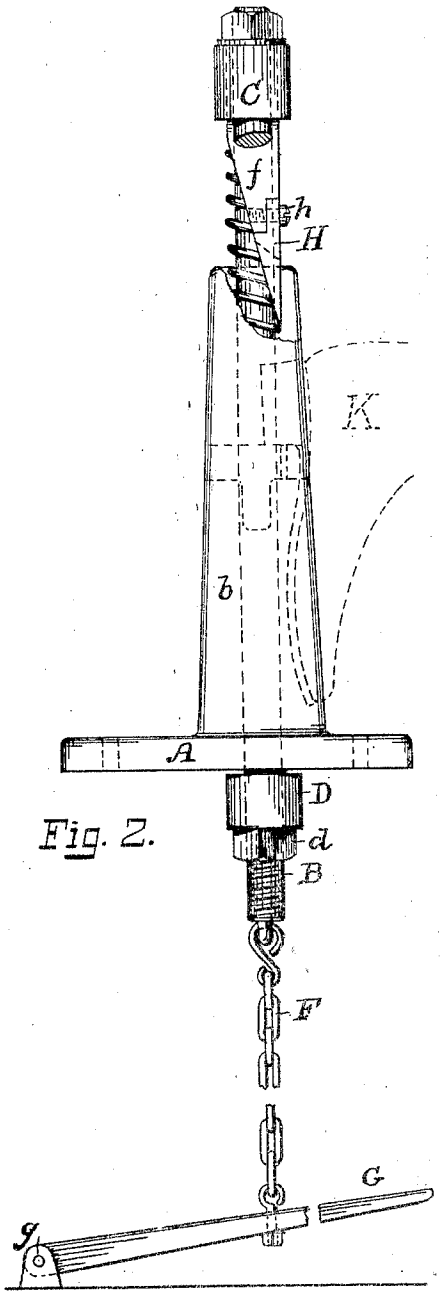


Fig. 2.

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CHARLES E. LEACH AND ERNEST C. LEACH, OF WEST PEABODY, MASSACHUSETTS, ASSIGNORS TO CHARLES E. LEACH & COMPANY, OF LYNN, MASSACHUSETTS, A FIRM.

SHOE-HEEL-REDUCING DEVICE.

1,114,154. Specification of Letters Patent. Patented Oct. 20, 1914.

Application filed May 8, 1914. Serial No. 837,586.

To all whom it may concern:

Be it known that we, CHARLES E. LEACH and ERNEST C. LEACH, citizens of the United States, residing at West Peabody, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Shoe-Heel-Reducing Devices, of which the following is a specification.

Our invention relates to devices used by shoemakers in removing portions of worn heels from shoes preparatory to replacing the removed parts by new material.

Our object is to provide a device whereby any portion of a shoe heel desired may be removed quickly and without undue disturbance or displacement of the remaining portion of said heel, cutting through both the leather and the nails and leaving a flat and level surface upon which to re-bulid a new heel. This reducing or cutting down process was formerly performed with various hand tools, producing very unsatisfactory results and frequently considerably injuring the portion left on the shoe, which required additional labor to level up to a proper condition for receiving the new work. By our method a flat, level surface is produced, requiring little labor to put in condition for building up a new heel. By our method the work is performed very rapidly, much more so than by any former method known to us.

We attain these objects by means of the mechanism illustrated in the accompanying drawing, in which,—

Figure 1 is a front elevation; Fig. 2 is a side elevation and Fig. 3 is a plan view of our device.

Similar letters refer to similar parts in the several views.

The construction of our device is as follows: A, is a cast iron frame adapted to be bolted down to an ordinary work bench. At each side are the uprights *b*, *b*, connected by the cross bar *c*. This frame is bored vertically for the passage of the two rods B, B, which are connected at the top by the cross head C, secured by the nuts *e*, *e*. Fitted to the lower ends of the rods B, B, is the cross bar D, secured and rendered adjustable by the nuts *d*, *d*. The rods B, B, and cross head C, are supported by the helical springs E, E. Attached to the cross bar D, is the chain F, the lower end of which is attached to the foot lever G, which is pivoted to the floor at *g*.

Formed integral with the cross head C, is the downwardly projecting part *f*, formed to receive the steel cutting knife H, secured to it by the screws *h*, *h*. The knife H, is divided or forked as shown in Fig. 1, the lower ends and inner edges of the forked portion being sharp and beveled from the front backward, as shown in Fig. 2, and indicated by dotted lines in Fig. 1.

The front of the base A, and of the cross bar *c*, are both concaved, as shown in Fig. 3, and this concave surface of the cross bar *c*, is faced with a steel plate *i*, fastened by screws, as shown.

The operation of our device is as follows: The shoe from which a part of the heel is to be removed is placed in the position shown by dotted lines at K, Figs. 1 and 2, the front of the heel resting on the cross bar *c*, and firmly held in that position by the operator. The foot being now pressed upon the lever G, the cross head C, is drawn down, the knife H, sinking into the heel at the proper point and forcing its way entirely through the length of it, dividing the leather and cutting the nails. In some cases a second stroke is necessary to complete the work. The springs E, E, bring the cross head C, knife H, and foot lever G, back to their original position, ready for another operation as soon as the foot is removed.

Having described the construction and operation of our device and shown wherein it differs from former devices and methods, we claim:

In a device of the character described, the combination of a fixed frame adapted to support a shoe heel, a frame slidable in said fixed frame, a chisel-like forked knife fixed to said slidable frame, helical springs adapted to support said slidable frame and to return it to its initial position after it has been forced downward, a foot lever and a member connecting said foot lever and said slidable frame, all constructed and operating substantially as described and for the purposes set forth.

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