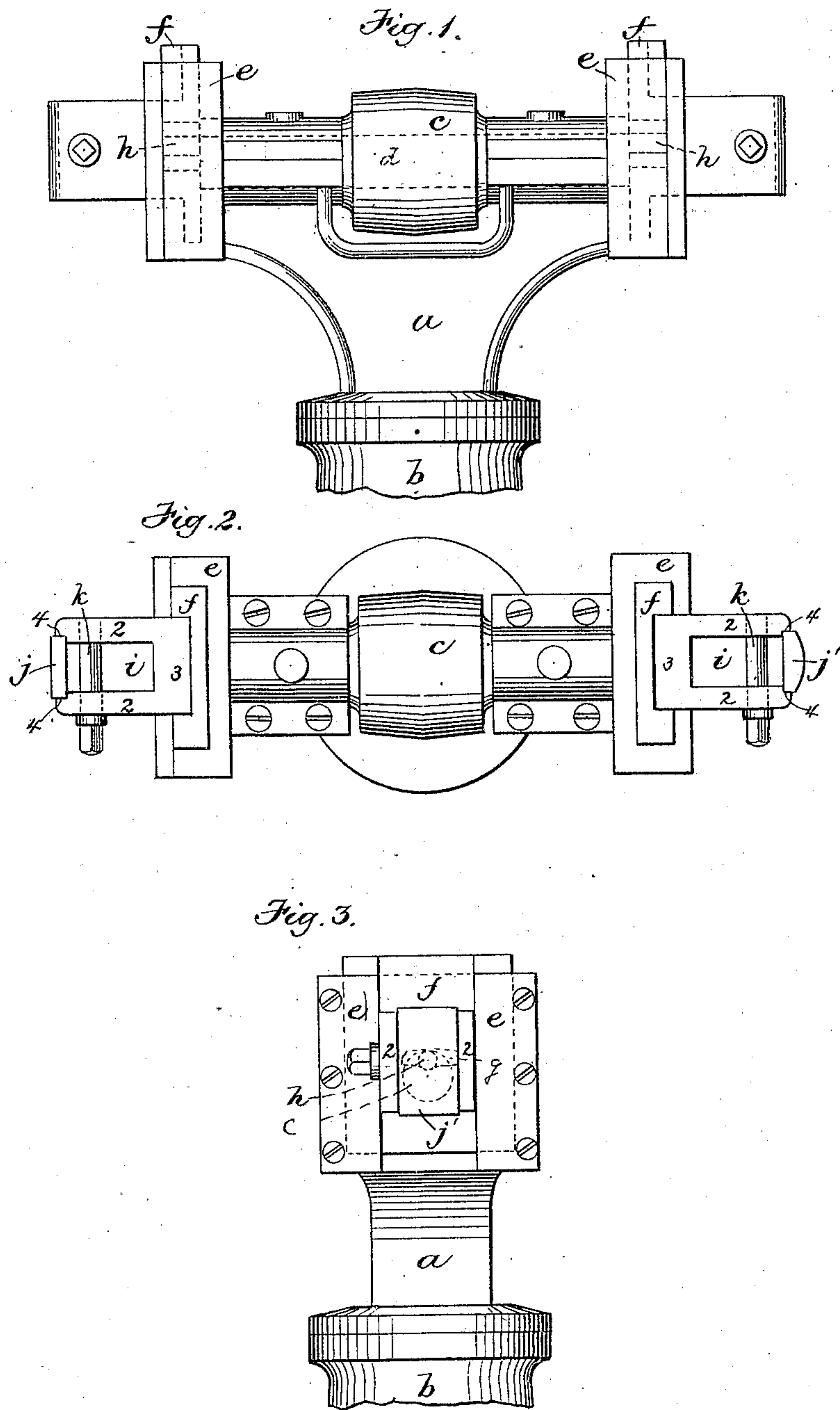


(No Model.)

W. GORDON.
HEEL FILING MACHINE.

No. 285,997.

Patented Oct. 2, 1883.



Witnesses.
John M. Tuohay
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UNITED STATES PATENT OFFICE.

WILLIAM GORDON, OF BOSTON, MASSACHUSETTS.

HEEL-FILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 285,997, dated October 2, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GORDON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Heel-Filing Machines, of which the following is a specification.

This invention has for its object to provide improved means for trimming boot and shoe heels and for smoothing or reducing the top-lift or tread-surface of a heel.

The invention consists in an organized machine having a reciprocating file, formed either to trim the sides of the heel, as a substitute for the rotary cutter generally employed, or to level or reduce the tread-surface of the heel, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a machine embodying my invention. Fig. 2 represents a top view of the same. Fig. 3 represents an end view.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a suitable supporting-frame, mounted on a standard, *b*, and containing the bearings of a horizontal shaft, *c*, which is provided with a pulley, *d*, on which runs a driving-belt. At the opposite ends of the frame are vertical guides *e e*, in which are fitted slides *f f*, which are adapted to reciprocate vertically, and are provided with suitable slots, *g g*, into which project eccentrics *h h*, formed on the ends of the shaft *c*, said eccentrics being adapted, when the shaft rotates, to reciprocate the slides *f f* vertically in the guides *e e*. Each slide *f* is provided with a file holder or clamp, *i*, each composed of two outwardly-projecting arms, 2 2, connected at their inner ends by the plate 3, attached to the slide *f*, and provided on the inner sides of their outer ends with recesses or seats 4 4 for the corners of the files *j j'*. Said files, when placed in the recesses, as shown in Fig. 2, are secured by means of a screw-bolt, *k*, which passes through the arms 2 2 and causes them to bite or grasp the edges of the files *j j'*, the arms 2 2 springing inwardly under the pressure of the screw *k*. It will be seen that the files thus secured are reciprocated with

the slides *f f*. The file *j* has its acting surface formed or molded to impart the desired curvature to the sides of a heel, while the file *j'* has a flat working-surface adapted to level the tread of a heel.

The acting surface of the file may be formed in any suitable manner, the file-teeth being cut by any of the methods now in use, or in any other desirable manner.

The boot or shoe having a heel to be operated upon may be presented to the file in any suitable manner, and is preferably mounted on a suitable jack. If desired, however, the boot or shoe may be held by the operator, and partially supported by a fixed rest attached to the frame *a*, said rest being arranged with relation to the file substantially as the rest shown in Letters Patent granted to me December 5, 1882, No. 268,480, for heel-burnishing machine, is arranged with relation to the burnishing-tool shown in said patent.

I have found by practical experience that the reciprocating file, acting on the surface of a heel to perform either of the operations described, does not burn or injure the leather, like an ordinary rotary trimming-cutter, or like a rotary wheel having an abrasive surface adapted to level the tread of a heel. The heel is therefore left in better condition by the file than by the appliances heretofore used.

I do not limit myself to the employment of the two differently-formed files in a single organized machine, as a machine employing a single file will be no departure from the spirit of my invention. Nor do I limit myself to the particular means shown for reciprocating the file, as said means may be variously modified.

I claim as my invention—

1. A heel-file having its abrading-surface curved in one direction to fit the outline of the heel, and being straight in direction of its length, so as to be adapted to operate on the heel by reciprocating motion, substantially as described.

2. The combination, in a heel-filing machine, of a file having its abrading-surface curved in one direction to fit the heel, and

being straight in direction of its length, with mechanism, substantially as described, for reciprocating said file in a right line.

3. The combination of the slide *f*, having
5 the clamping-arms 2 2 and clamping-screw *k*, combined with mechanism for reciprocating said slide, as set forth.

In testimony whereof I have signed my name

to this specification, in the presence of two subscribing witnesses, this 24th day of April, 1883.

WILLIAM GORDON.

Witnesses:

C. F. BROWN,
A. L. WHITE.