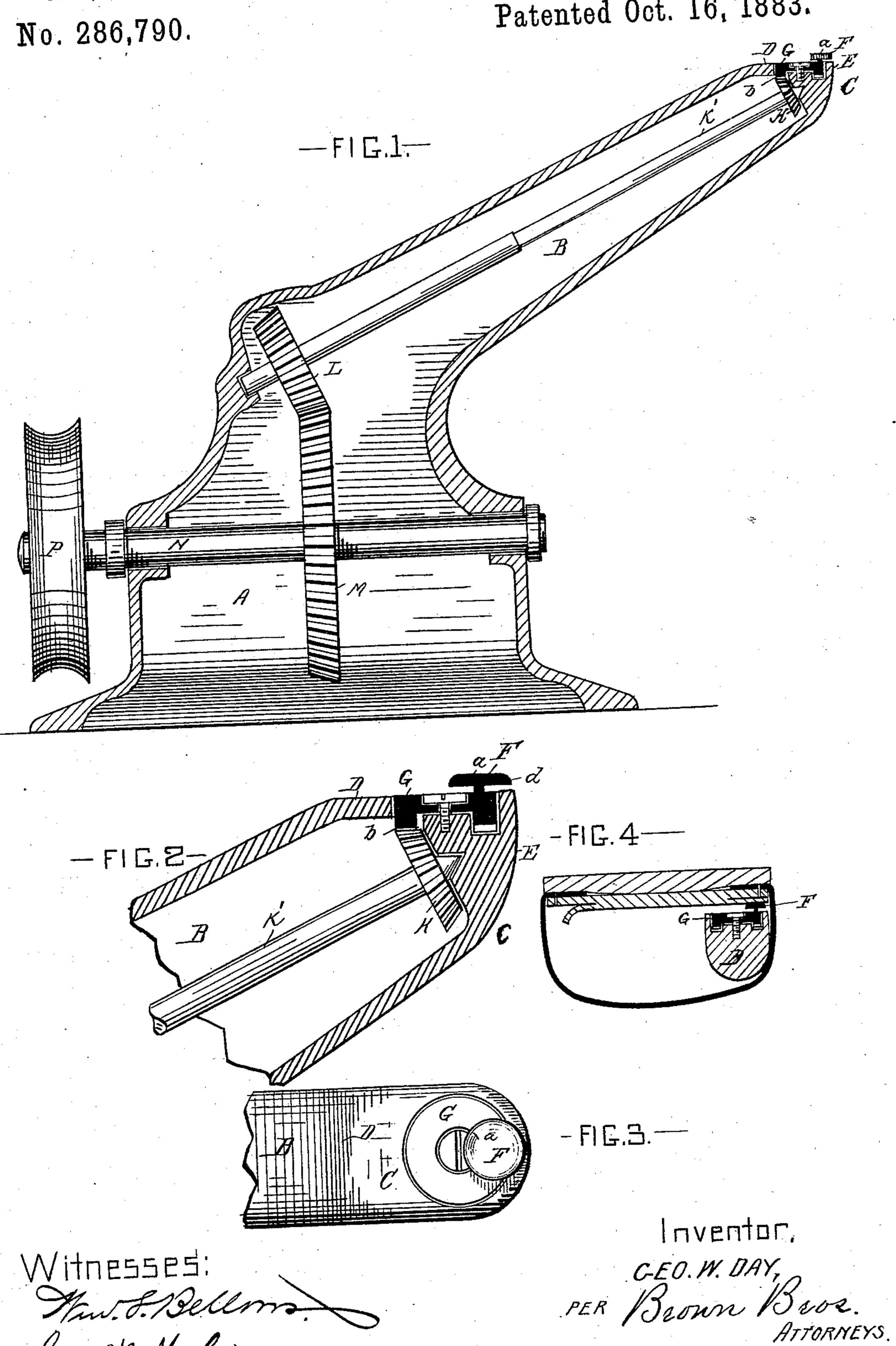
G. W. DAY.

MACHINE FOR FLATTENING AND SMOOTHING CHANNEL FLAPS.

Patented Oct. 16, 1883.



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United States Patent Office.

GEORGE W. DAY, OF HAVERHILL, MASSACHUSETTS.

MACHINE FOR FLATTENING AND SMOOTHING CHANNEL-FLAPS.

SPECIFICATION forming part of Letters Patent No. 286,790, dated October 16, 1883.

Application filed August 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DAY, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Flattening Out and Smoothing Channel Flaps or Lips of Boot and Shoe Inner Soles, of which the following is a full, clear, and exact de-

scription.

In machine-sewed boots and shoes oftentimes the inner sole is made with a channel receiving the stitches, and composed in part of a lip or flap, which, preparatory to and during the sewing of the soles and vamp or up-15 per of the boot or shoe, is turned and held back from said channel, and when the sewing is completed is laid and flattened out upon and over said channel and stitches thereon to cover and conceal them, and also made as 20 smooth as possible, all to render the boot or shoe as to its inner sole suitable for wear and use.

This invention relates to a machine for flattening out and smoothing said channel flap or 25 lip of the inner sole after the sewing of the soles and upper of the boot or shoe is com-

pleted.

This improved machine essentially is composed of a "standard" or "horn," as it may 30 be termed, and of a disk or button-head to lay and flatten out and smooth the said channel lip or flap, which is carried at one end of said horn, and there attached eccentrically to a rotating carrier, in combination with mech-35 anism for imparting rotation to said carrier, and all in a manner for said horn to be entered into a boot or shoe, and said boot or shoe to be then moved about and upon said horn, and in so being moved presents successively all 40 portions of the flap or lip of the channel of its inner sole to the working-surface and edge of said moving disk or button-head, to be by them laid and flattened out and smoothed over said channel and the stitches, substantially as 45 hereinafter described.

In the accompanying plate of drawings, Figure 1 is a central longitudinal vertical section of my improved machine. Fig. 2 is a similar view to Fig. 1, but only of the operating end 50 of the horn and its working-disk, and on an enlarged scale. Fig. 3 is a plan view of Fig. 2, and Fig. 4 is a side elevation of the operating

end of the horn and its working-disk, showing it in operative position with a shoe, which is in transverse vertical section.

In the drawings, A represents a hollow base or pedestal, to be fastened to a bench or other

suitable support.

B is a hollow standard or horn, projecting from said base A in an upward inclining di- 60 rection, and at its upper end, C, made with a flat surface, D, having an outer rounding and convex edge, E. This horn is of suitable length and shape to be entered into a boot of shoe, Fig. 4, and for the boot or shoe to be 65 moved about and around upon it, resting by its upper or vamp against the convex edge E. and by the inner surface of its inner sole upon the upper horizontal face, a, of a horizontal disk or button-head, F, which is located at the flat 70 surface D of the horn and attached eccentrically to and projecting from the upper surface of plate G, which is arranged to be turned and rotated within the horn below its said flat surface. This rotating plate G, by its gear- 75 teeth b, meshes with a bevel-gear wheel, H, at the upper end of an inclining shaft, K, turning at each end in suitable bearings of the horn B, and at its lower end connected by gearwheels L and M to a longitudinal driving- 80 shaft, N, of the base A, adapted to be driven from a pulley-wheel, P, outside of the base, which is connected with any suitable driving mechanism.

The mechanism above described, connect- 85 ing rotating plate or disk-carrier G with the driving-shaft N, is incased within the hollow base and hollow horn, and, as is obvious, when the boot or shoe is on and being moved around the horn the disk can be driven as described 90 and properly presented to the channel flap or lip of the inner sole, and cause all portions of the same to be turned and flattened out and smoothed in a direction from the middle toward the edge of the sole, as they are succes- 95 sively brought to said disk, by moving the boot or shoe around upon the horn. The convex edge of the horn B protects the upper against the edge d of the disk when in operation, and this edge is preferably made rounding, as 100 shown.

Having thus described my invention, what I claim is—

1. A machine for the purpose specified, com-

posed of a horn or standard, B, an eccentrically-attached disk, F, and mechanism for operating said disk, combined and arranged together and to be used and work substantially as described.

2. A machine for the purpose specified, composed of a horn or standard, B, a disk, F, eccentrically attached to its carrier G, gearwheels H and L, shaft K, and gear-wheel M, and shaft N, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE W. DAY.

Witnesses:
EDWIN W. BROWN,
WM. S. BELLOWS.