No. 622,310. Patented Apr. 4, 1899.

E. E. WINKLEY & F. L. ALLEY.

CHANNELING DEVICE.

(Application filed Sept. 18, 1896. Renewed Dec. 16, 1897.)

(No Model.)

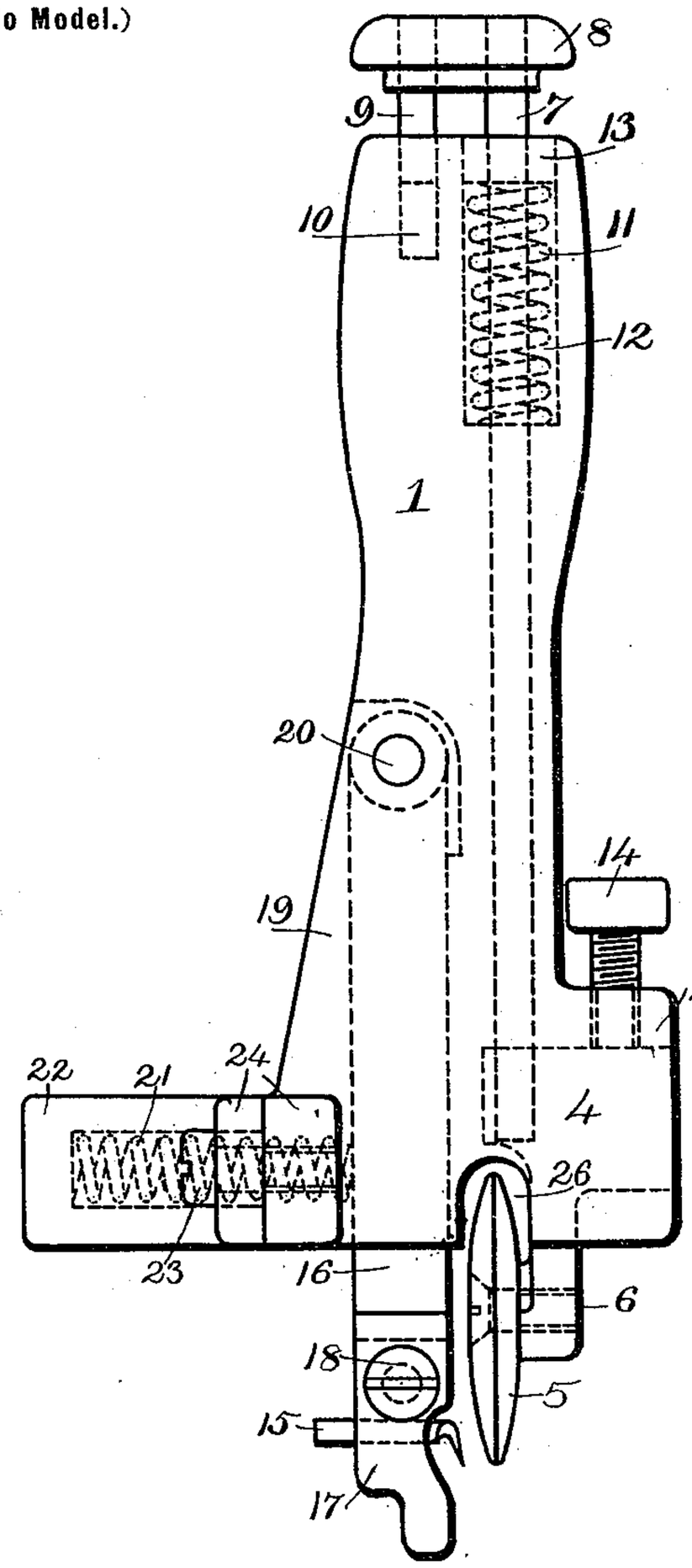

FIG. 1.

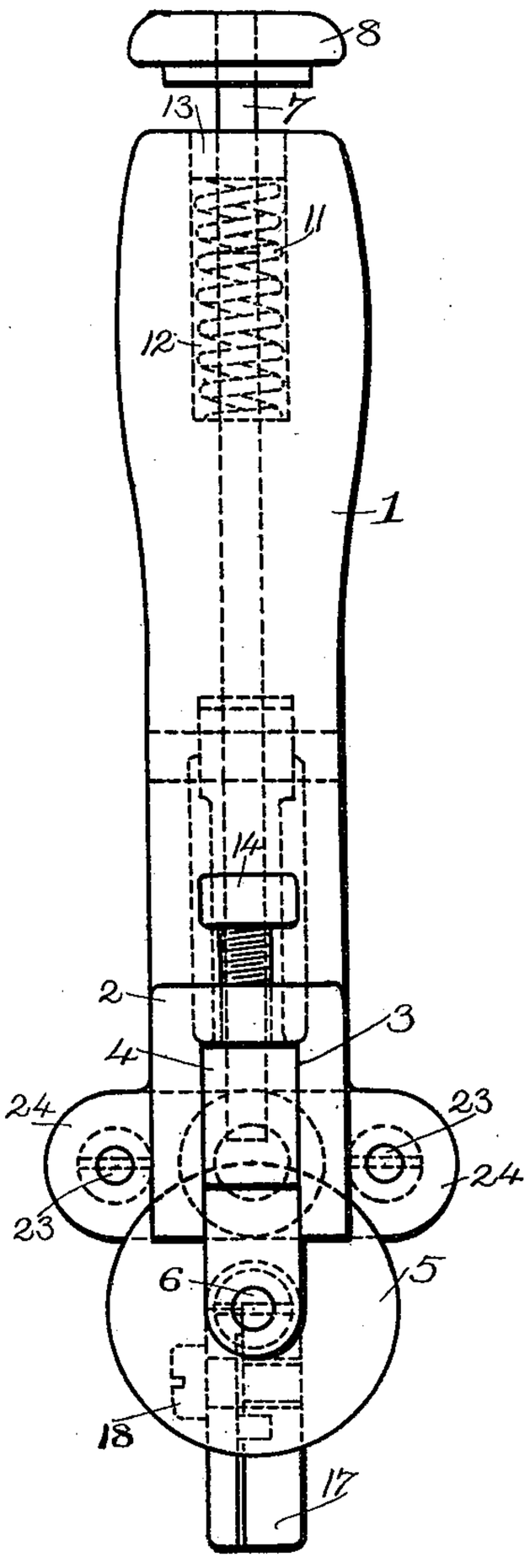

FIG. 2.

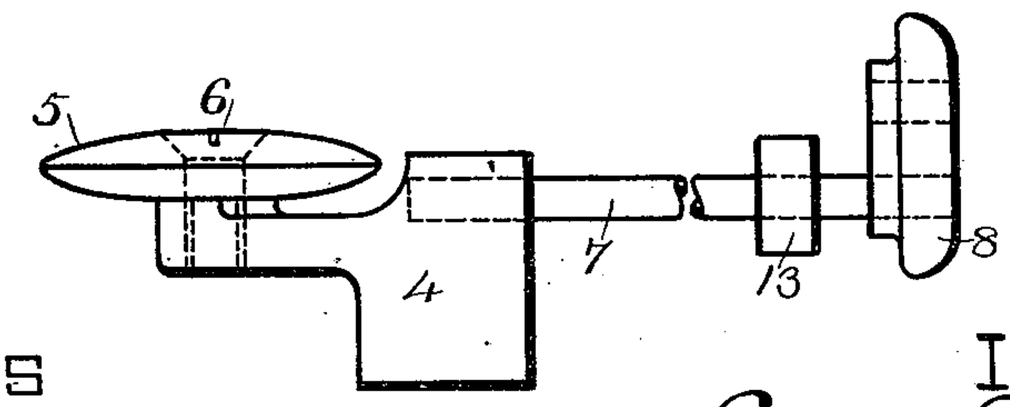

FIG. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

ERASTUS E. WINKLEY AND FREDERICK L. ALLEY, OF LYNN, MASSACHUSETTS.

CHANNELING DEVICE.

SPECIFICATION forming part of Letters Patent No. 622,310, dated April 4, 1899.

Application filed September 18, 1896. Renewed December 16, 1897. Serial No. 662,216. (No model.)

To all whom it may concern:

Be it known that we, ERASTUS E. WINKLEY and FREDERICK L. ALLEY, citizens of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Channeling Devices; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to a channeling device or tool, and more particularly to a hand channeling-tool adapted to be grasped in the hand of the operator while it is operating to cut a channel or groove in the sole.

The object of the invention is to provide a tool or device by which a channel or groove can be readily and accurately cut in the surface of the outsole after the same has been temporarily secured in place on the upper and one in which the position of said channel relative to the edge of the sole can be accurately determined and placed by a suitable gage under the control of the operator while cutting said channel.

A further object is to produce a channeling-tool in which the knife-carrier will automatically accommodate itself to soles of varying thickness.

To this end the present invention consists of the devices and combination of devices which will be hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows the tool in side elevation. Fig. 2 shows the tool looking toward the left in Fig. 1, and Fig. 3 shows a detail of the adjustable gage.

In the drawings, 1 represents a suitable stock or handle, which is adapted to be grasped by the hand of the operator to manipulate the device. At the lower end of the handle 1 is a projected head or boss 2, within which is a guideway 3, in which is mounted for a vertical or longitudinal adjustment a block or carrier 4, carrying a gage or guide 5. The gage or guide 5 is preferably a disk or wheel having a suitably-shaped edge to engage the crease between the upper and welt, and it is mounted to be freely revoluble upon a stud or screw 6, fixed in an extension of the block or carrier 4. The block or carrier 4 is vertically or longitudinally adjustable in the guideway 3 to adjust the relative longitudinal position of the guide or gage 5 and the channeling-knife in order to position the channel cut in the sole relatively to the edge of the sole.

The adjusting means is preferably of such a character that the adjustment may be easily and quickly performed by the operator while channeling the sole in order that the position of the channel may be placed at different distances from the edge of the sole at various points therein—for example, closer to the edge around the fore part than at the shank.

For the purpose of securing the desired ready adjustment of the gage or guide 5 the head 4, which carries the same, is mounted upon a rod 7, which extends up through the stock or handle 1 and within which it is adapted to have a free longitudinal movement. At its upper end the rod 7 is connected to a push piece or head 8, which has a depending pin 9, fitting in an aperture 10 in the upper end of the stock or handle 1, which guides the movements thereof and prevents any turning or rotary movement of the head 8 and rod 7. The rod 7 is normally held in its extreme upper position by a spring 11, which surrounds the same and which is contained within a recess 12 in the stock or handle 1 and which at its upper end bears against a collar or enlargement 13 upon the rod 7, as shown in dotted lines, Figs. 1 and 2.

To limit and control the upward movement of the block or carrier 4 and gage or guide 5, a set-screw 14 is tapped into the head 2 in position to bear at its end upon the block or carrier 4.

The above-suggested arrangement is such that the spring 11 will raise the rod 7, block or carrier 4, and gage or guide 5 to a point determined by the position of the stop 14, and when thus raised the relative longitudinal position of the gage and knife is such that the channel will be placed in the sole some distance from the edge, and by pressing upon

the head 8 and depressing rod 7 against the tension of spring 11 the block or carrier 4 and gage or guide 5 thereon are adjusted to change the relative longitudinal position of the knife and gage, and thus bring the channel nearer the edge of the sole.

The channeling-knife 15 may be of the usual and ordinary construction, and it is secured to the carrier 16 by any suitable means, such as the clamping-plate 17 and screw 18.

In order that the channeling-knife may operate upon soles of different thickness, the carrier 16 is pivoted upon a stud 20 within a recess 19 in the stock or handle 1 in such a manner that it is free to swing toward and from the gage or guide 5, it being normally swung toward said gage by a spring 21, (see dotted lines, Fig. 1,) which is fitted in a bearing 22 and which bears against the swinging knife-carrier 16. The bearing 22 is preferably formed separately from the stock or handle 1 and secured thereto by screws 23, which take into ears or lugs 24 upon said bearing 22 and the stock or handle 1.

In order that the gage or guide 5 may have a sufficient vertical or longitudinal movement, a notch or recess 26 is formed in the lower part of the stock or handle 1.

In the operation of the device the handle or stock is grasped by the operator and the edge of the sole to be channeled is inserted between the knife-carrier 16 and the gage or guide 5, the gage or guide being inserted in the crease between the upper and welt. The operator then moves the device around the edge of the sole, and the spring 21 causes the knife-carrier 16 to swing on its pivot and the knife 15 to cut into and raise a channel upon the surface of the sole, the gage or guide 5 acting to properly direct the tool in making the cut.

If it is desired to vary the position of the cut with relation to the edge of the sole, as before explained, a downward pressure of the thumb upon the head 8 will cause the gage or guide to move, and thus lift the channeling-cutter 15, which will be brought nearer the edge of the sole.

Having thus described the construction of our device and its mode of operation, we claim as new and desire to protect by Letters Patent of the United States—

1. In a channeling-tool, the combination with a stock or handle, of a knife-holder carried thereby, a channeling-knife mounted in said knife-holder, a rod arranged to slide in said stock or handle, a crease gage or guide carried by said rod and means under the control of the operator to actuate said slide-rod to project and retract said gage or guide toward or away from the channeling-knife, and a stop to adjust the normal position of said gage, substantially as described.

2. In a channeling-tool, the combination with a stock or handle, and a suitable gage or guide mounted thereon, of a channeling-knife mounted upon a pivoted spring-controlled support, substantially as described.

3. In a channeling-tool, the combination with a stock or handle carrying a suitable gage or guide, of a knife-carrier pivotally supported therein for a movement toward and from the said gage or guide, substantially as described.

4. In a channeling-tool, the combination with a rotary disk, to engage the crease between the upper and welt, a spring-sustained support upon which said disk is mounted and which is normally held in a retracted position, means to depress said support to advance said disk, and a knife-support, movable toward and from said disk, and a spring acting upon said knife-support, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ERASTUS E. WINKLEY.
FREDERICK L. ALLEY.

Witnesses:
T. HART ANDERSON,
A. E. WHYTE.