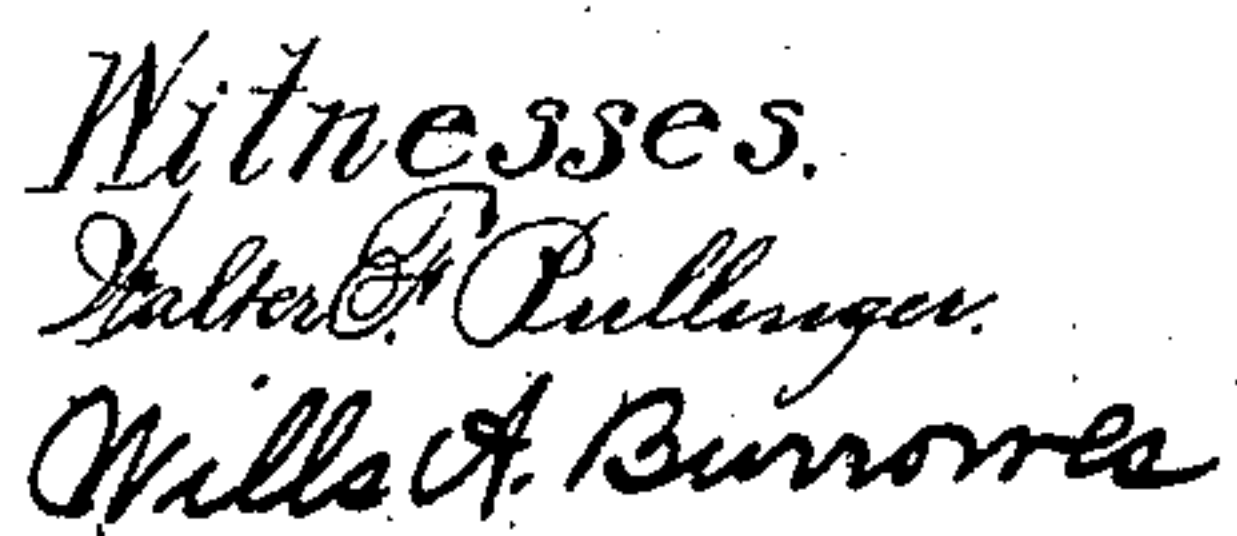


934,186.

Patented Sept. 14, 1909.



Inventor:
William B. Keighley
by his Attorneys.
Horsam & Horsam

UNITED STATES PATENT OFFICE.

WILLIAM B. KEIGHLEY, OF VINELAND, NEW JERSEY, ASSIGNOR TO CHARLES KEIGHLEY AND SONS, OF VINELAND, NEW JERSEY, A FIRM.

INSEAM-TRIMMING MACHINE.

934,186.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed May 12, 1908. Serial No. 432,533.

To all whom it may concern:

Be it known that I, WILLIAM B. KEIGHLEY, a citizen of the United States, residing in Vineland, New Jersey, have invented certain Improvements in Inseam-Trimming Machines, of which the following is a specification.

One object of my invention is to provide a machine, capable of being advantageously used to trim the surplus leather and stock from the inseams of shoes at a certain point in their manufacture, which shall be of a relatively simple construction and at the same time substantial and reliable in operation.

Another object of the invention is to so arrange the parts of a machine having the above described characteristics that it shall occupy but relatively little space, and be capable of being kept in operative condition by the expenditure of a minimum of time and labor.

These objects and other advantageous ends I attain as hereinafter set forth, reference being had to the accompanying drawings, in which:—

Figure 1, is a side elevation of my improved machine; Fig. 2, is a front elevation of the device illustrated in Fig. 1, Figs. 3 and 4, are sections of portions of the cutting knife and its supporting wheel structure, respectively illustrating the relative positions of the sharpening wheels and the work supporting post, and Fig. 5, is a perspective view illustrating in detail the adjustable carriage structure for the work supporting post.

During the manufacture of shoes of a certain type it is necessary at one stage of the operation to remove the surplus leather and stock from the inseam, and in order that this operation may be performed to a great extent mechanically and that by a device of uncomplicated construction, I have provided the apparatus hereinafter described. This consists of a suitable supporting framework A provided with bearings *a* for a shaft *b* on which is mounted a pulley wheel *b'* and a knife-carrying wheel B. While in the present instance I have shown these bearings *a* as formed in upwardly projecting standards, it is obvious that any desired type of bearing may be employed to support the shaft *b*.

Mounted upon the periphery of the wheel B is a knife *b²* which in construction re-

sembles a hoop, although, as shown in Fig. 3, it is so constructed as to be part of a conical surface rather than of a cylindrical surface; the circle of its cutting being of larger diameter than that of its other edge. I do not confine myself to such form of knife since I may use a cylindrical or flat form. This annular knife is held to the wheel in any desired or suitable manner, in the present instance by screws *b³*, and its cutting edge is beveled as shown in Fig. 3. At the front of the machine is mounted the work supporting post D and while this may be of any construction suitable for holding a partly finished shoe so as to permit of its inseam being trimmed as desired, I preferably construct it as described and claimed in my application for patent, No. 424,184, filed March 30, 1908, with modifications to suit the present form of knife. It will be noted from Figs. 1 and 2 of the drawings that this work supporting post D is so mounted upon the frame A as to be movable both across the face of the knife and at right angles thereto, and for this purpose is supported on a sliding carriage whereby it may be moved toward and from the edge of the knife, parallel to the line of the shaft *b*. This carriage is supported upon a second carriage *d'* which may be moved at right angles to the first line of movement. As shown in Fig. 1, the top face of the work supporting post B is inclined or beveled in order that the material to be severed from the partly finished shoe may be supported in the most convenient manner.

In any suitable position relatively to the knife, I mount upon the frame two brackets *e* and *e'* which provide bearings for a pair of standards *e²* and *e³*. The first of these has an abrading wheel *e⁴* so arranged that it may be brought into contact with one of the cutting edges of the annular knife *b²*. Upon the standard *e³* is mounted a second abrading wheel *e⁵* and it also is movable so that it may be brought into contact with the other side of said knife. Each of these wheels has on its shaft a pulley wheel for the reception of a driving belt connected to any suitable source of power.

Under operating conditions the knife supporting wheel B with its knife is turned at a high velocity by a suitable belt acting on the pulley *b'* and the inseam of the shoe properly supported on the work post D may

be trimmed to remove the surplus stock and leather as desired; said shoe being free to be properly held and moved owing to the construction of the knife and work supporting post by which an unobstructed space is provided in front of the machine.

In order to prevent accidental contact with any part of the knife I mount upon the frame protecting hoods or covers F and F' which completely inclose it except in the immediate vicinity of the two abrading wheels e^4 and e^5 and at the front of the machine above the work supporting post where the said knife is necessarily exposed for a short distance, though it may, if desired, be provided with the finger guard shown and claimed in my above mentioned application for patent.

From the above description it will be noted that by providing an annular or endless knife mounted on the periphery of the wheel B so as to project at one side thereof, the mechanism for trimming inseams as

above indicated is reduced to an exceedingly simple form, and is of such a nature that the likelihood of its getting out of order or failing to properly accomplish the work is reduced to a minimum.

I claim:

The combination in an inseam trimming machine, of a revoluble wheel structure mounted thereon, driving means for said structure, an annular knife mounted on the periphery of the wheel structure, an adjustable post or work support movable across the face of the knife and at right angles thereto, said post being adjacent to the edge of the knife.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM B. KEIGHLEY.

Witnesses:

FRANK VINES,
AMBROSE KANING.