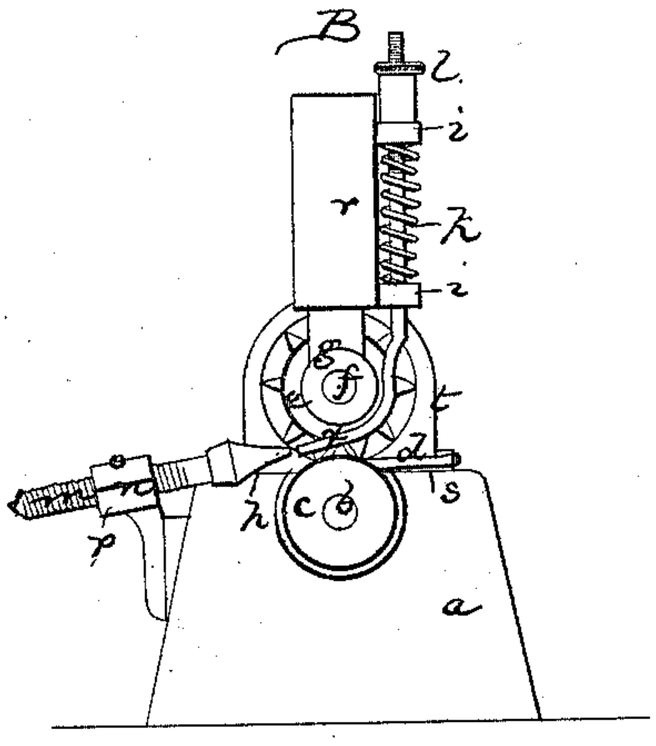
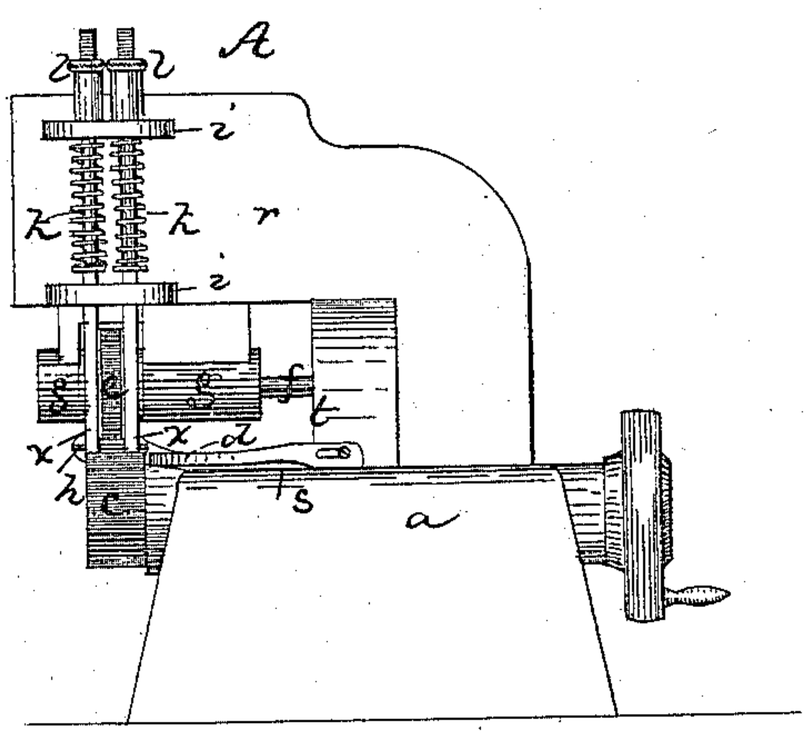
C. KENISTON.

Machines for Skiving Counters.

No. 134,551. Patented Jan. 7, 1873.





Witnesses,
L. B. Kidder.
L. H. Gratiner.

Inventor.
C. Keniston
by his Attys.
Crosby & Gould

UNITED STATES PATENT OFFICE

CHARLES KENISTON, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR TO "THE SHOE-MACHINERY-MANUFACTURING COMPANY."

IMPROVEMENT IN MACHINES FOR SKIVING COUNTERS.

Specification forming part of Letters Patent No. **134,551**, dated January 7, 1873.

To all whom it may concern:

Be it known that I, CHARLES KENISTON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Machines for Skiving Counters; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to details of construction of skiving-machines used particularly for skiving boot and shoe counters.

In the organization to which my improvements especially appertain two positively-rotated feed-wheels are used, one above the other, in connection with an edge-guide placed back of the wheels and a skiving knife or cutter at the side of the wheels opposite to the entering side, and the upper feed-wheel has a spring-pressure to cause the stock to be griped between and fed by the wheels.

Although the two feed-wheels are essential to the proper feed of the stock, and although the lower feed-wheel must have a width equal to or approximating to the length of operative cutting-edge of the knife, (to properly present the leather to such edge,) and although the pressure needs to be upon an equal extent of top surface of the stock, it is found that where the upper feed-wheel is of an equal width to the lower wheel skived stock cannot be uniformly trimmed or reskived, on account of the unequal bearing of the feeding-surface of the upper wheel upon the respective thick and thin portions of the stock.

To remedy this I make the upper feed-wheel a thin wheel, standing above the center of the lower wheel, and place on each side of it a spring presser-foot, which presses down upon the stock at the opposite sides of the wheel, these presser-feet being made adjustable as to extent of downward movement, so that their pressure may be regulated in accordance with the kind, condition, or shape of the stock.

My invention consists, primarily, in the combination with the upper feed-wheel (acting in conjunction with the lower feed-wheel) of spring presser-feet placed at opposite sides of the upper wheel, or so as to bear upon the stock, upon and adjacent to the sides of the lower feed-wheel. The invention also consists in a method of adjusting the position of the skiving knife or cutter.

The drawing represents a machine embodying the invention.

A shows the machine in side elevation. B is a front elevation of it.

a denotes the frame, having journaled in stationary bearings a driving-shaft, *b*, carrying at its front end the feed-wheel *c*. *d* is the edge-guide, made adjustable in position with relation to said wheel. Over the feed-wheel *c* is the upper feed-wheel *e*, fixed on a shaft, *f*, which shaft is mounted and rotates at its front end in bearings *g*, which are forced down by springs and which preferably have provision for limitation of their downward movement. This feed-wheel *e*, as shown at A, is much narrower than the feed-wheel *c*, (said wheel *c* having a width not varying greatly from the length of cutting-edge of the skiving-knife *h*,) and at each side of the wheel *e* is a presser-foot, *x*, the shank of each foot extending through guide or bearing pieces *i* extending from the frame *a*. The shank of each presser-foot has a collar or shoulder upon which bears the lower end of a spring, *k*, the upper end of which spring bears against the under surface of the upper piece *i*, and the stress of the springs *k* forces down the two presser-feet against the stock, the downward movement of the feet being determined and adjustably limited by nuts *l*. Each presser-foot stands just above the feed-wheel, at or near one face thereof, and while the narrow feed-wheel irregularly presses the stock to the lower feed-wheel, (when the stock is thin at the edge and increases in thickness from said edge,) this irregular pressure is extended over so narrow a surface as to be harmless in its effects, while each presser-foot only presses in accordance with the condition or thickness of the stock beneath it, the inner foot pressing down the thin edge with the same pressure that the other presser-foot presses down the thicker portion of the edge, the three presser devices insuring a practically uniform pressure over the varying thickness fed between the lower feed-wheel and the upper feed and presser mechanism, each foot being adjusted in accordance with the nature of the thickness beneath it. The shank *m* of the skiving knife or

cutter *h* is held in a box or bearing, *n*, between two jaws, *o p*, and for facility of adjustment these jaws and the shank are screw-threaded, and, by loosening the jaw or clamp *o*, the cutter may be turned and adjusted in position toward or away from the wheels or as to its angular set, the combined griping and adjusting devices being very simple and readily manipulated. The upper feed-wheel shaft is journaled at its rear end in a stationary bearing, but at its front end in the bearings *g*, which are made yielding and vertically adjustable; and the bearings *g* extend down from an arm, *r*, which arm is rigid and stationary and supports the bearings, so that they stand above the table *s* and leave between the bearings *g* and their feed-wheel and the lower feed-wheel and table a space extending back to the upright *t*, this overhung arrangement of the bearings enabling stock to be introduced under the bearings, as will readily be seen.

I claim—

1. In combination with the feed-wheel *c* and the feed and presser wheel *e*, the spring presser-feet *x*, arranged and operating substantially as shown and described.

2. The cutter *h*, adjustable in position by means of the screw-threaded shank *m* and the nut-threaded box *n*, substantially as shown and described.

3. In combination with the stationary arm *r* and shaft *f*, the adjustable or yielding bearings *g* extending down from said arm and supporting one end of the shaft *f*, the opposite end being provided with its driving-gear, substantially as shown and described.

CHARS. KENISTON.

Witnesses:
FRANCIS GOULD,
S. B. KIDDER.