

M. E. KNIGHT.

FEEDING ATTACHMENT FOR SOLE CUTTING MACHINES.

No. 524,278.

Patented Aug. 7, 1894.

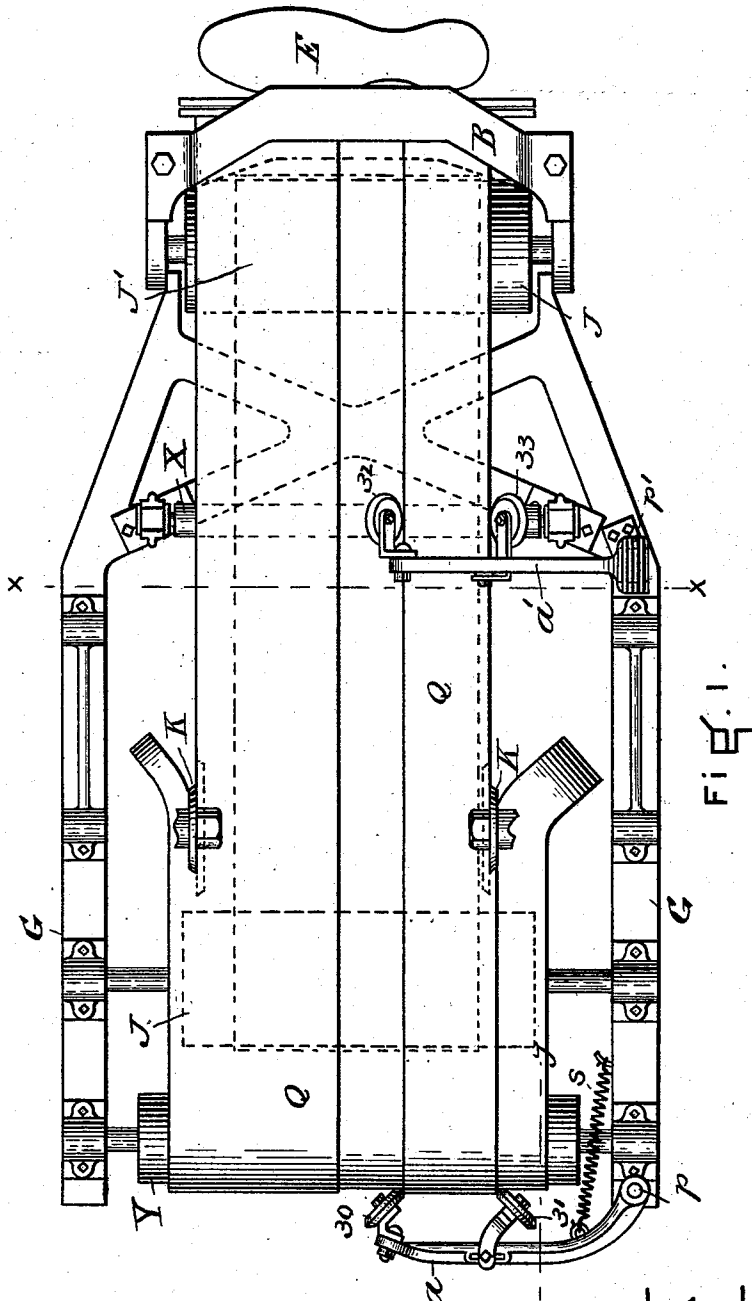


FIG. 1.

WITNESSES.

J. A. Buffum.
A. J. Burrows.

INVENTOR

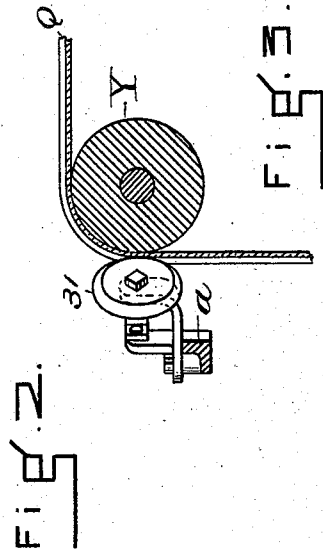
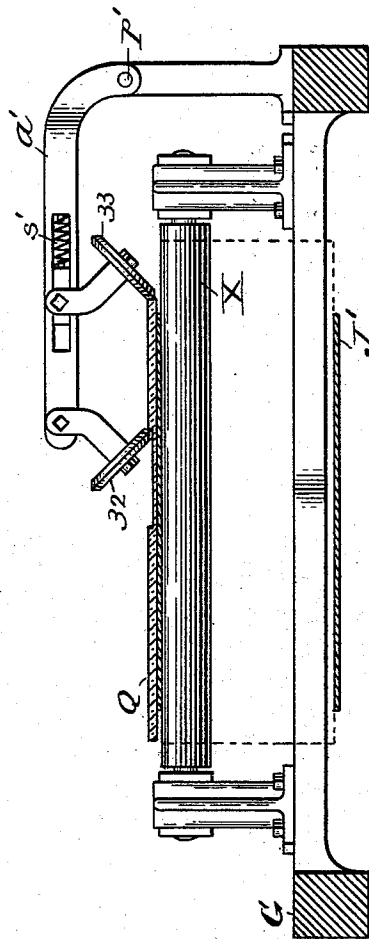
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UNITED STATES PATENT OFFICE.

MARGARET E. KNIGHT, OF SOUTH FRAMINGHAM, ASSIGNOR TO HERSELF,
AND ROBERT D. EVANS AND JOHN S. LOCKWOOD, OF BOSTON, MASSA-
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FEEDING ATTACHMENT FOR SOLE-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 524,278, dated August 7, 1894.

Application filed July 31, 1893. Serial No. 482,032. (No model.)

To all whom it may concern:

Be it known that I, MARGARET E. KNIGHT, of South Framingham, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in the Feeding Attachments of Machines for Cutting Up Strips of Ribbed Sheet Material, of which the following is a specification.

My invention relates to improvements in the means for guiding the sheet material to a cutting machine such as described in application Serial No. 471,030, wherein a disk guide is arranged to run against an offset or ridge in the sheet, the offset being held up closely to said disk by an angularly placed drawing roll.

My invention consists in the use of two guides, preferably disks, held in a supporting arm and arranged so that when resting upon the strip of material which is being fed to the machine they will bear upon opposite sides of a projecting ridge or the offsets upon opposite sides of a groove or depression running lengthwise of the strip, I am thus enabled to dispense with the perpendicular bearing disk, and the drawing roll described in the said application.

The construction is clearly illustrated in the accompanying drawings, wherein—

Figure 1, is a plan view of the feeding apron and its supporting rolls, with a strip of ribbed material upon the apron and my improved guides in position upon said strip. Fig. 2, is a transverse vertical section on line $x-x$ Fig. 1. Fig. 3, is a vertical section on line $y-y$ Fig. 1, through the supporting roll at the outer end of the machine, and the arm which sustains a pair of guiding disks there, and through a portion of the strip of material.

In referring to the drawings similar characters are used to indicate the same part of the machine in each figure.

G is the frame which supports the feeding and guiding mechanism, B the cross-head for the knives which cut up the material, E a pattern by which to cut shoe soles, J, J, rolls for supporting and moving a feed-apron, J'.

The apron and its outer supporting roll are shown in dotted lines, Fig. 1.

Q is an illustration of a sheet of india-rub-

ber with its upper surface calendered with longitudinal ridges in a form suitable in cross-section for shoe soles.

X, Y, are rolls to support the strip of material at locations where it will be found convenient and advantageous to place the guides for properly directing the strip to the cutters.

I prefer to use guides consisting of disks 30, 31, 32, 33, with the periphery beveled off upon each side of the center as shown, and to support them in pairs upon arms a, a' , attached to the frame of the machine by pivots, p, p' . It will also be found advantageous to hold the said guiding disks upon their supports at such an angle with the plane of the surface of the strip of material that the beveled edges of the disks will bear flatly against the sides of the ridges by which the material is to be guided.

At KI have shown the knives used for trimming the strip of material.

In some instances it may be found sufficient to employ only one pair of guides 30, 31, or 32, 33; but to insure more accurate location of the material with relation to the trimming knives K and the pattern E, I prefer to use two pairs of guides.

The guide 33, may be supported in the arm a' , with a spring s' , (see Fig. 2) pressing against the outer side of it, to give a yielding pressure against the edge of the material after it has been trimmed, and the guides 30, 31, should be held up to the strip Q, by a spring, such as s , acting upon the arm a .

I claim—

1. In a machine for cutting up longitudinally corrugated strips of material, the combination of a feeding apron to support and feed the strips, guides to engage corrugations thereon, and a supporting roll to hold the material up to the said guides.

2. In a machine for cutting up longitudinally corrugated strips of material, the combination of mechanism to support and feed said strips, guiding disks arranged in pairs to engage said corrugations, and a resilient bearing for one or more of said guides, whereby they will readily yield to irregularities in said corrugations substantially as described.

3. In a machine for cutting shoe soles, or-

ganized with mechanism to feed strips of sheet material to the cutters, one or more pairs of disk guides to direct the material, each of which pairs is held in a swiveling support, and means for adjusting said guides to vary the distance between them in accordance with the variation in distance between ridges upon the material with which said guides are to engage.

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Witnesses:

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