

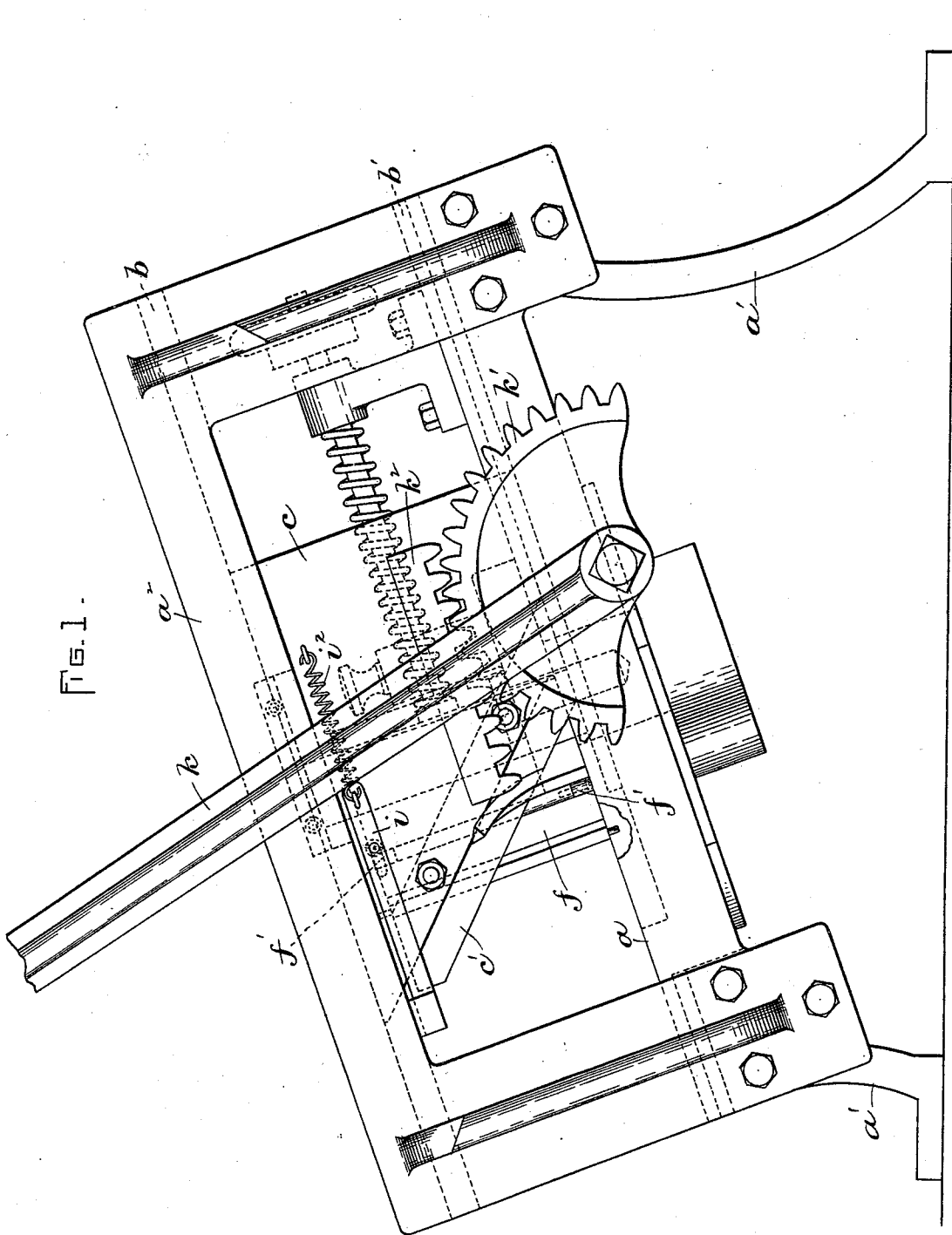
(No Model.)

3 Sheets—Sheet 1.

A. E. PERRY.
LEATHER SKIVING MACHINE.

No. 518,790.

Patented Apr. 24, 1894.



WITNESSES:

W. D. Jackson
A. H. Allen

INVENTOR:

A. E. Perry
by Wright Brown Crossley
Atty.

(No Model.)

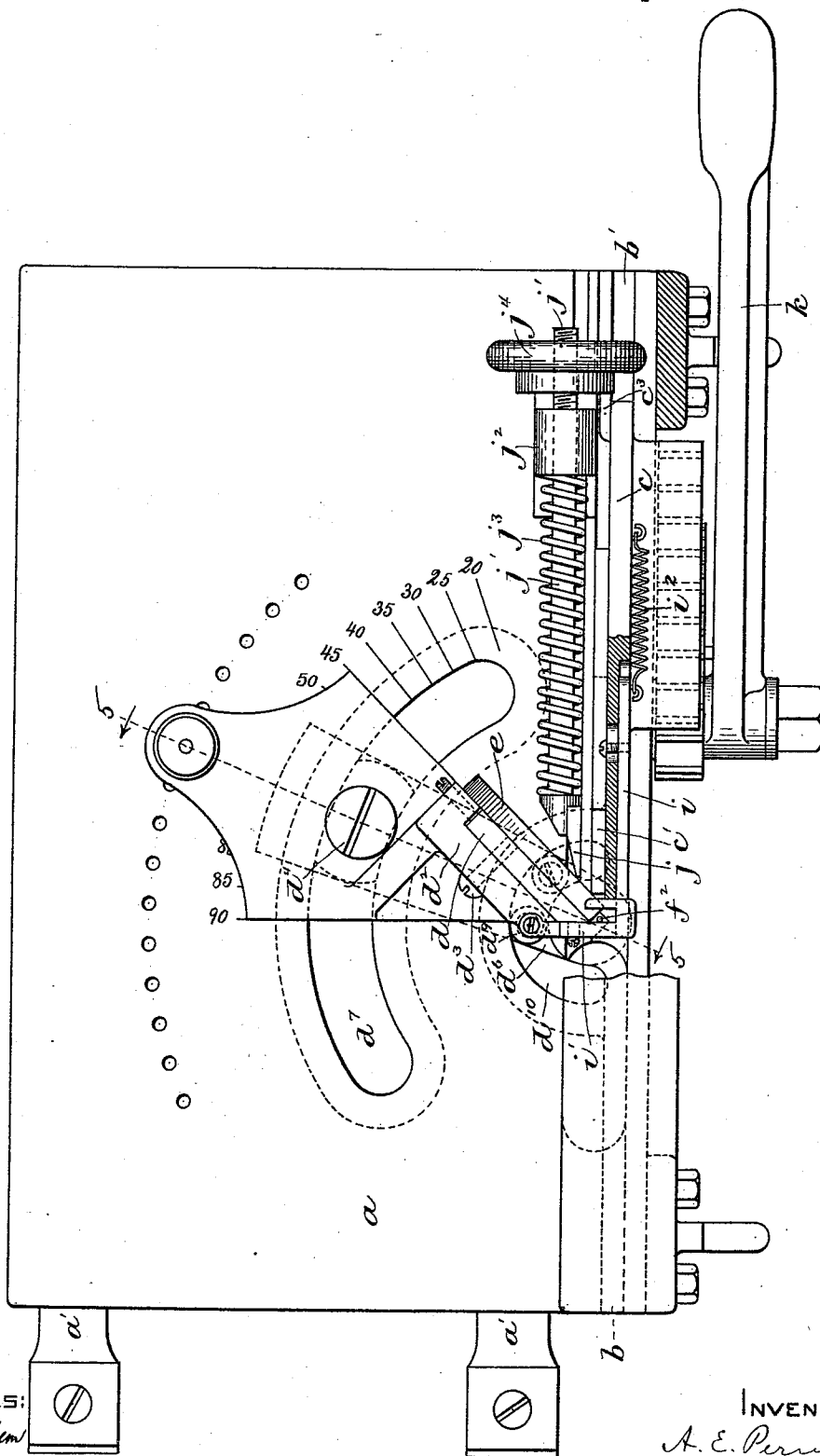
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Fig. 2.



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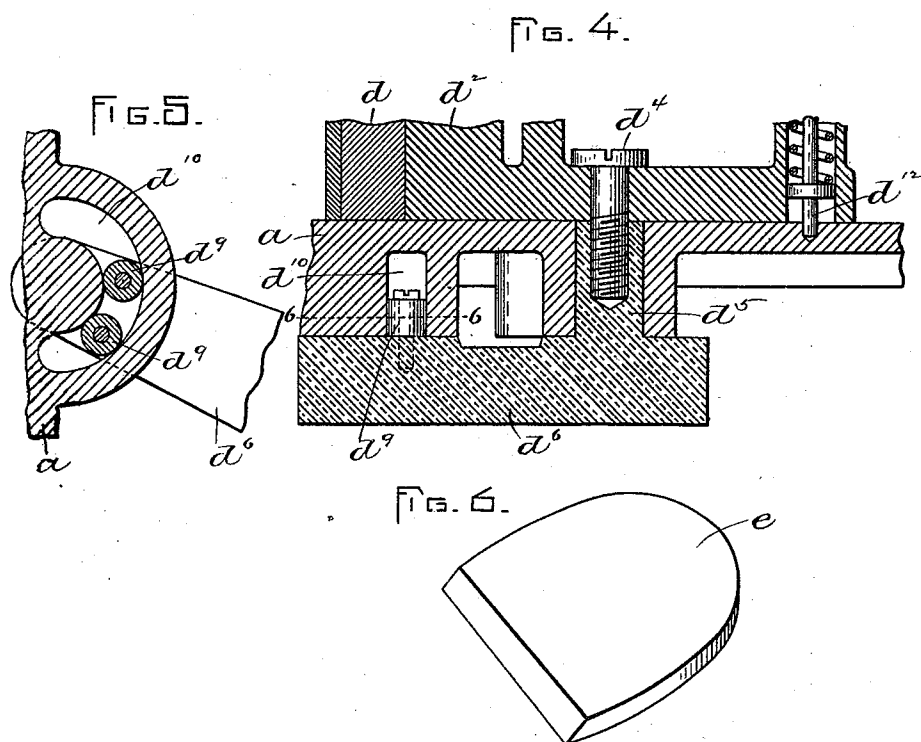
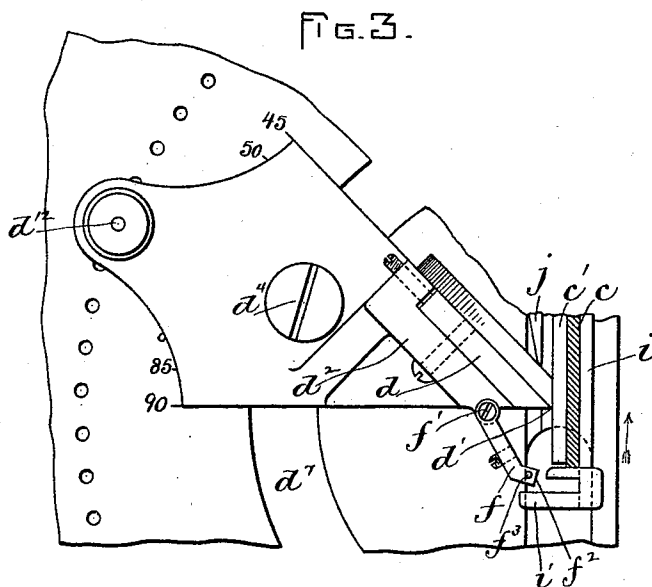
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INVENTOR

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by Night Brown & Crossley
Attys.

UNITED STATES PATENT OFFICE.

AUSTIN E. PERRY, OF WAKEFIELD, ASSIGNOR TO GEORGE H. P. FLAGG, OF BOSTON, MASSACHUSETTS.

LEATHER-SKIVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 518,790, dated April 24, 1894.

Application filed January 3, 1894. Serial No. 495,544. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN E. PERRY, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Leather-Skiving Machines, of which the following is a specification.

This invention relates to machines for bevelling or skiving pieces of leather, and particularly spring heels for boots and shoes, a spring heel being composed of a lift or heel-blank having a tapering breast-portion formed by the action of the machine to which my improvements relate.

The invention has for its object to provide a machine adapted to form a skived or beveled surface of any desired degree of inclination on a spring heel blank or lift, and it consists in the several improvements which I will now proceed to describe and claim, said improvements relating particularly to the gage which determines the position of the breast of the blank with relation to the cutting devices and to the clamp which holds the blank against the rest which supports the blank against the action of the cutting knife.

Of the accompanying drawings, forming part of this specification: Figure 1 represents a side elevation of a skiving-machine embodying my improvements, showing the knife in the act of making its forward stroke. Fig. 2 represents a top view, showing the machine in the position indicated in Fig. 1. Fig. 3 represents a partial top view, the knife being in the position shown in Fig. 2. Fig. 4 represents a section on line 5—5 of Fig. 3. Fig. 5 represents a section on line 6—6 of Fig. 5. Fig. 6 represents a perspective view of a spring heel blank, the breast of which is formed by the action of the machine.

The same letters of reference indicate the same parts in all the figures.

In the drawings: *a* represents an inclined bed or table, supported by legs *a'* *a'*. At one edge of said table are guides *b* *b'*, in which a knife-carriage *c* is adapted to slide, said guides being grooves or ways, one of which, *b*, is formed in a frame *a*² affixed to one edge of the table *a*, the other, *b'*, being formed directly in said bed or table.

c' represents a knife, affixed to the carriage

c, and provided with a cutting-edge, which is preferably inclined, as shown in Figs. 1 and 2.

d represents a work-rest or support, which is pivotally connected to the bed or table *a*, and is adapted to support a blank or lift *e* against the pressure of the knife. Said rest terminates at one end in an acute-angled shearing-edge *d'*, shown most clearly in Fig. 4, which coincides with the path of the knife, so that, as the knife moves along, its cutting-edge will co-operate with the said shearing-edge *d'* in severing the projecting portion of the blank *e*. The shearing-edge *d'* is at the center of the arc in which the rest *d* is adjustable on the bed *a*, means being provided whereby the rest may be adjusted so as to stand at any desired angle with reference to the knife, and thus cause the latter to form the breast of the heel at any desired angle with the top and bottom surfaces thereof.

The means here shown for adjusting and securing the rest are as follows: The rest, which is preferably composed of the rest proper *d*, which is a plate of hardened steel having the shearing-edge above described, and a holder or support *d*², to which said rest is attached by screws *d*³, is connected by a screw *d*⁴ with a socketed stud *d*⁵, formed on a plate *d*⁶, which is located below the bed or table *a*. The stud *d*⁵ projects upwardly through a segmental slot *d*⁷ in the table *a*, and is provided with two studs having anti-friction rollers *d*⁹ *d*⁹, projecting upwardly into a segmental slot *d*¹⁰, formed in the bed *a*, the slots *d*⁷ and *d*¹⁰ being concentric with each other and with the line of the shearing-edge *d'*. When the screw *d*⁴ is loosened, the breast and the blank *b*⁶ may be moved in the arc of a circle, the stud *d*⁵ and rolls *d*⁹ moving freely in the segmental slots until the desired adjustment has been effected, when the screw *d*⁴ may be tightened. A spring-latch or bolt *d*¹² may be employed, in conjunction with a series of orifices *d*¹³ in the table *a*, to secure the rest at various points in its adjustment.

f represents a gage, which is connected by hinges or pivots at *f'* *f'* with the work-rest. The swinging edge of said gage has a lip or flange *f*², formed, as shown in Fig. 3, to project across the shearing-edge of the rest and thus hold the breast or forward edge of the

blank in the proper position with relation to said edge before the blank is skived. The gage is normally held out of its operative position, as shown in Fig. 4, by gravitation, caused by the inclination of the table *a* and the work-rest *d*, and means are provided for moving it to its operative position by the backward movement of the knife-carriage, so that, when the operator moves the knife back preparatory to the operation of the machine, this movement will place the gage in its operative position, ready to position the blank. The knife-carriage is provided with a gage-moving device, which, as here shown, is a slide *i*, movable in a groove or way formed for its reception in the carriage *c*, and provided at its forward end with an elongated finger *i'*, projecting across the path in which the knife moves, and arranged to bear against a stud or projection *f*³ on the gage, the arrangement being such that, when the gage is out of its operative position and the knife is being retracted or moved in the direction indicated by the arrow in Fig. 4, the finger *i'* will strike the projection *f*³ and thus draw the gage to its operative position against the rest. The slide *i* is connected with the carriage *c* by means of a spring *i*², which enables the slide to yield after the gage has been brought to its operative position and during the completion of the backward movement of the knife-carriage, so that the slide *i* holds the gage yieldingly in its operative position. When the knife is moved forward, the spring at first holds the slide and gage in the operative position of the latter until the rear end of the slot in the carriage, which receives the slide, strikes the rear end of the slide, the slide then moving forward with the carriage and permitting the gage to swing away from the rest, as shown in Fig. 4. It will be seen, therefore, that the gage is automatically moved both to and from its operative position, and requires no attention on the part of the operator.

j represents a clamp, which is a bar, the ends of which are fitted to slide in guides or ways formed for it in a frame *a*² in the table *a*. To the clamp is affixed a rod *j'*, passing through a fixed ear or guide *j*², the rear end of said rod being screw-threaded.

*j*³ represents a spring, interposed between a shoulder on the rod *j'* and the guide *j*², said spring acting to press the clamp *j* forward toward the rest *d*.

*j*⁴ represents a nut or head, engaged with the screw-threaded portion of the rod *j'*, and arranged to abut against the guide *j*² and thus limit the forward movement of the clamp by the spring *j*³. By adjusting said nut *j*⁴, the clamp can be adjusted to the thickness of the blank or lift to be skived. The head or nut *j*⁴ is arranged to come in contact with an ear or projection *c*³ on the carriage *c* when the latter is being retracted, said ear striking the nut during the backward movement of

the carriage, and moving the latter with the rod *j* and the clamp, thus removing the clamp from the lift or piece of work and permitting the latter to be removed after the skiving operation. The knife-carriage and knife may be moved by any suitable means. I have here shown as the operating means a lever *k*, affixed to a gear-segment *k'*, which meshes with a rack *k*² affixed to the carriage *c*, movements of said lever produced by the hand of the operator moving the carriage back and forth, as will be readily seen.

I claim—

1. In a leather skiving machine, the combination of a supporting bed or table, a knife carriage movable in guides or ways thereon and provided with a trimming knife, a work rest adjustable in the arc of a circle on said table and having a shearing edge coinciding with the path of the knife, a gage pivotally connected to said rest and formed to project, when in its operative position, across said shearing edge, and a spring-pressed gage-controlling slide movable with and independently of the knife carriage and adapted to move the gage in its operative position when the knife is being retracted, as set forth.

2. In a leather skiving machine, the combination of a supporting bed or table, a knife carriage movable in guides or ways thereon and provided with a trimming knife, a work rest adjustable in the arc of a circle on said table and having a shearing edge coinciding with the path of the knife, a gage which is pivotally connected with the rest and projects across said shearing edge when in its operative position, and a slide movable with the knife carriage and having an elongated finger formed to engage a projection on the gage and draw the latter to its operative position when the knife is being retracted, said slide being yieldingly connected with the knife so that it may yield during the backward movement of the knife after bringing the gage to its operative position, as set forth.

3. In a leather skiving machine, the combination of an inclined bed or table, having guides or ways, a knife carriage and knife movable in said guides, a work rest adjustable in the arc of a circle on said table and having an inclined shearing edge standing at right angles with the table, a gage pivotally connected with the said rest and formed to project over said shearing edge when in its operative position, the inclination of said edge causing the gage to normally swing away from its operative position by gravitation, and a slide movable with the knife carriage and having an elongated finger formed to bear on a projection on the gage and draw the latter to its operative position when the knife is being retracted, said finger releasing the gage when the knife is moved forward, as set forth.

4. In a leather skiving machine, the combination of a supporting bed or table, a knife

carriage movable in guides or ways thereon and provided with a trimming knife, a work rest adjustable in the arc of a circle on said table and having a shearing edge coinciding with the path of the knife, a clamp movable toward and from said rest in guides beside the path of a knife, a rod affixed to said clamp and passing through a fixed ear or guide, the rear end of said rod being screw threaded, a spring on said rod interposed between the said clamp and guide and adapted to press the clamp toward the rest, and an adjustable nut or head engaged with the threaded end of the rod and adapted to regulate the forward movement of the clamp, said nut or head being arranged to project into the path of the knife carriage, so that the re-

tracting movement of said carriage also retracts the clamp, as set forth.

5. In a leather skiving machine, the combination of the table having the concentric slots d^7 d^{10} , the block d^6 engaged as described with said slots, and the work rest having a shearing edge and detachably connected with said block, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of December, A. D. 1893.

AUSTIN E. PERRY.

Witnesses:

C. F. BROWN,
A. H. BROWN.