

2 Sheets—Sheet 1.

No. 462,594.

Patented Nov. 3, 1891.



William Miller
Edward Wolff.

INVENTOR:

Jacob R. Scott
BY

Van Santvoord & Haugff
his ATTORNEYS

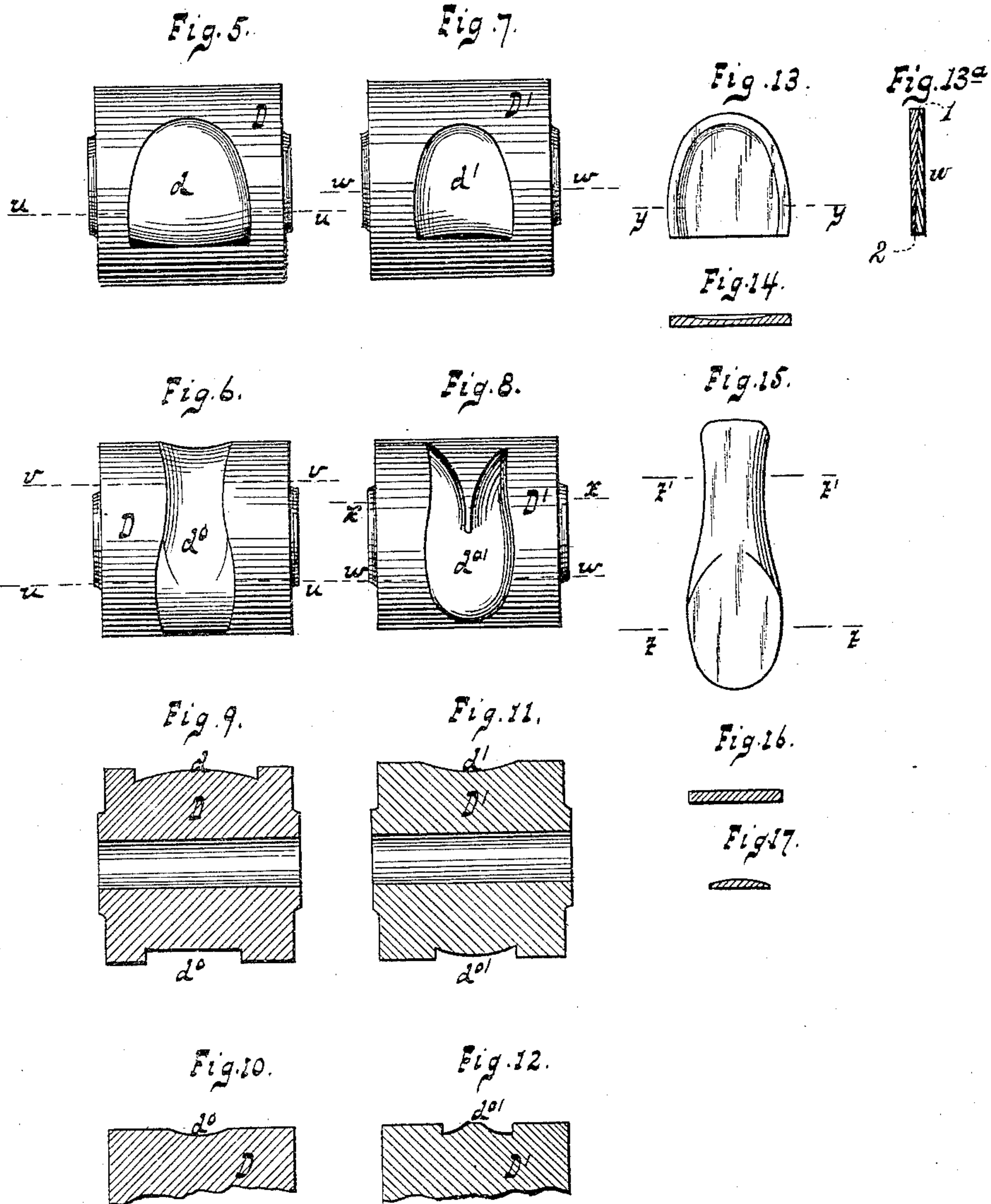
(No Model.)

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MACHINE FOR SKIVING HEEL LIFTS.

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UNITED STATES PATENT OFFICE.

JACOB R. SCOTT, OF NEW YORK, N. Y.

MACHINE FOR SKIVING HEEL-LIFTS.

SPECIFICATION forming part of Letters Patent No. 462,594, dated November 3, 1891.

Application filed July 2, 1891. Serial No. 398,269. (No model.)

To all whom it may concern:

Be it known that I, JACOB R. SCOTT, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Skiving-Machines, of which the following is a specification.

This invention relates to certain improvements in skiving-machines, as pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a transverse vertical section in the plane *s s*, Fig. 2. Fig. 2 is a side elevation, partly in section. Fig. 3 is a transverse vertical section in the plane *t t*, Fig. 2. Fig. 4 is a plan or top view. Figs. 5 to 8, inclusive, are elevations of dies which may be used in my machine. Fig. 9 is a longitudinal section of one of the dies in the plane *u u*, Figs. 5 and 6. Fig. 10 is a partial section in the plane *v v*, Fig. 6. Fig. 11 is a longitudinal section in the plane *w w*, Figs. 7 and 8. Fig. 12 is a partial section in the plane *x x*, Fig. 8. Fig. 13 is a face view of a lift for boot and shoe heels produced on my machine. Fig. 13^a is a longitudinal section of a blank for a lift, showing the line of the cut. Fig. 14 is a transverse section in the plane *y y*, Fig. 13. Fig. 15 is a face view of an insole produced on my machine. Fig. 16 is a transverse section in the plane *z z*, Fig. 15. Fig. 17 is a similar section in the plane *z' z'*, Fig. 15.

In the drawings, the letter A designates the bed-plate, from which rise two standards B B, which form the bearings for the shaft C. On this shaft is firmly mounted the roller D, which contains the half-die cavities *d*, and said shaft C is geared by cog-wheels *a a* with a counter-shaft C', which carries the roller D' and which has its bearings in two arms E E, which extend from a hub F, situated between the standards B B, Fig. 4, and mounted upon a rod G, supported in said standards. The front ends of the arms E E are exposed to the action of springs *b b*, which have a tendency to force the roller D' up in contact with the roller D. From the hub F extends an arm *e*, which carries a screw *f* for regulating the distance between the rollers D D'. If this screw

is screwed in, the arms E E are depressed and the roller D' is prevented from rising up in close contact with the roller D. The roller D' contains the half-die cavities *d'*, which co-operate with the half-die cavities *d* in the roller D. For instance, in order to produce lifts for boot and shoe heels (see Figs. 13 and 14) the roller D is provided with a die-cavity *d*, Figs. 5 and 9, the contours of which conform to the lift and the bottom of which is convex, Fig. 9, so as to force the blank into a die-cavity *d'* formed in the roller D', Figs. 7 and 11. When a blank is placed into the die-cavities *d d'* and the rollers D D' are caused to revolve in the direction of the arrows marked thereon in Fig. 1, the blank is brought in contact with a leather splitting or dividing knife H, Figs. 1 and 4, and those portions of the blank which project beyond the surface of the roller D are cut away, so that by each revolution of the rollers D D' a lift for a boot or shoe heel or any other article of a similar nature can be produced. For instance, in Figs. 15, 16, and 17 I have shown the insole for a boot or shoe, and in Figs. 6, 8, 10, and 12 I have shown the dies *d d'* in the rollers D D', which are required in order to produce such insole from a suitable blank.

In Fig. 13^a I have shown a section of the blank for forming a lift for boot and shoe heels. This blank fits the die-cavity *d* of the roller D, Figs. 5 and 9, and this die-cavity is of such a depth that when the blank is placed into it the portion *w*, Fig. 13^a, projects beyond the surface of the roller D, and a portion of said projecting portion enters the die-cavity *d'* in the roller D', Figs. 7 and 11. As the rollers revolve, the blank is split in the line 1 2, Fig. 13^a, and a lift is formed, such as shown in Figs. 13 and 14, while the portion *w* of the blank is waste. The knife H extends between the rollers D D', as shown in Fig. 1, and it may be firmly secured to a bracket *h*, which is formed on one of the standards B, or a movable knife may be used. The rollers D D' receive their motion from a drive-shaft I, which carries a belt-pulley J and a pinion K, which gears into a cog-wheel L, mounted loosely on the shaft C. The hub of this cog-wheel extends into a clutch M, which is firmly mounted on the shaft C and which carries a

dog *m*, which, when free to follow the action of a spring *n*, Fig. 3, engages a tooth *l*, formed on the hub of the cog-wheel L. When the dog *m* is in engagement with this tooth, the cog-wheel M is thrown in gear with the shaft C and the rollers D D' are set in motion. The dog *m* can be thrown out of gear with the hub of the cog-wheel L by any suitable means—such, for instance, as a bell-crank lever N, which connects by a rod O, Fig. 3, with a treadle, (not shown,) so that whenever said rod is forced downward the dog *m* is thrown out of gear with the hub of the cog-wheel L and the movement of the rollers D D' is stopped, and when the rod O is free to follow the action of the spring *o* the dog *m* is thrown in gear with the cog-wheel L and the rollers D D' are set in motion.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a skiving-machine, the combination of the drive-shaft I, the counter-shaft C', having a gear *a'* and carrying the lower die-roller D', the shaft C, geared to the drive-shaft, provided with the upper die-roller D, and having a gear *a* engaging the gear of the counter-shaft, the rod G, the hub F, arranged on the

rod and having the arms E, carrying the counter-shaft, and the arms *e*, provided with a set-screw *f*, the springs *b*, located beneath the arms which support the counter-shaft for pressing the lower die-roller upwardly against the upper die-roller, and the knife H, extending between the two die-rollers, substantially as described.

2. In a skiving-machine, the combination, with the knife H, the shafts C C', and the die-rollers D D', mounted thereon, of the driving-shaft I, the cog-wheel L, mounted loosely on the shaft C and geared with the driving-shaft, the clutch M, mounted firmly on the shaft C and carrying the spring-actuated dog *m*, a tooth *l*, formed on the hub of the cog-wheel L in position to engage the dog *m*, and means for throwing the dog out of gear with the cog-wheel, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JACOB R. SCOTT.

Witnesses:

J. VAN SANTVOORD,
E. F. KASTENHUBER.