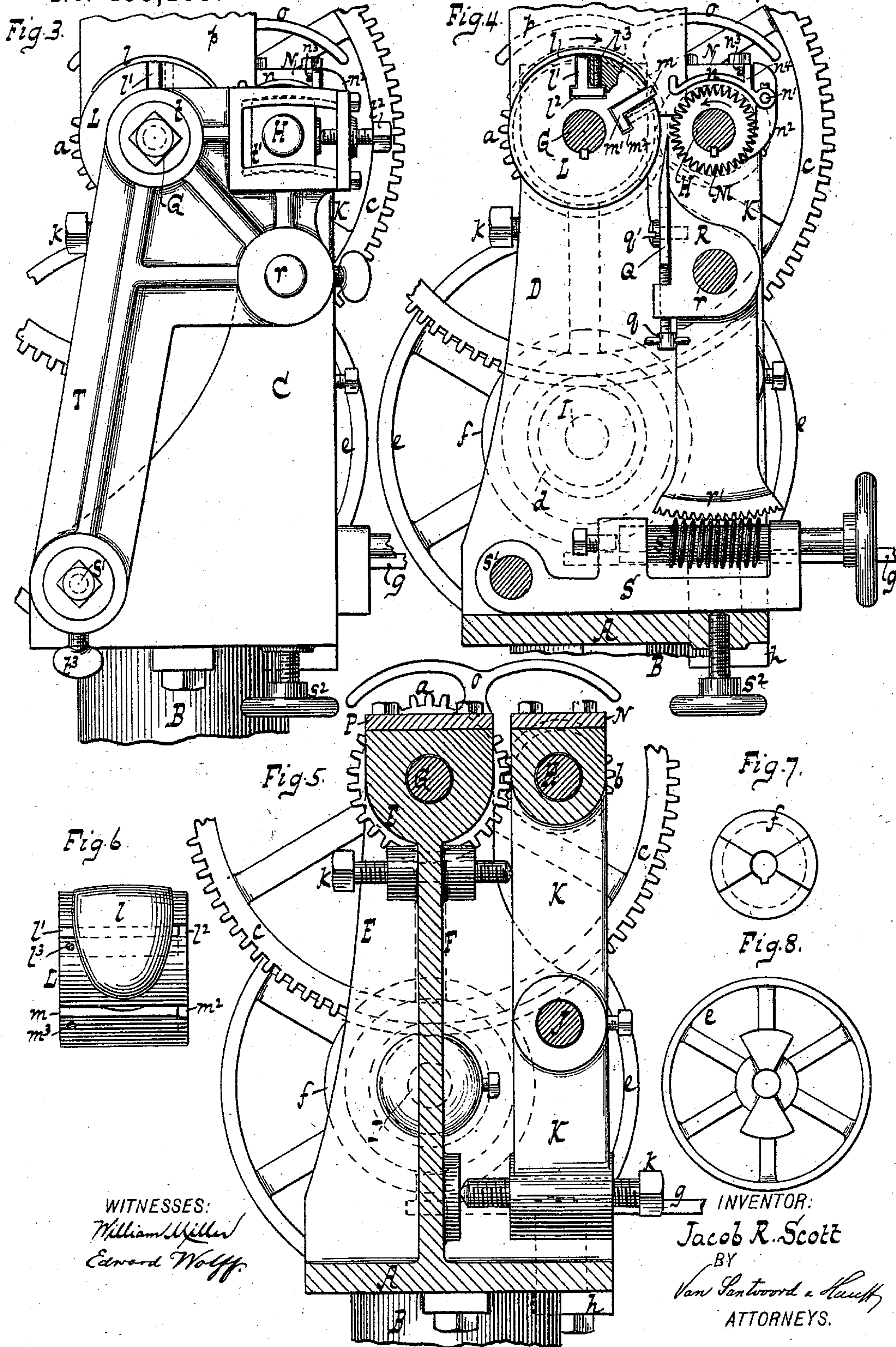


J. R. SCOTT.
SKIVING MACHINE.

No. 493,189.

Patented Mar. 7, 1893.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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

SKIVING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 493,189, dated March 7, 1893.

Application filed October 6, 1892. Serial No. 448,049. (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 front view. Fig. 2 is a plan or top view. Fig. 3 is an end view looking in the direction of arrow 1 in Fig. 1. Fig. 4 is a transverse vertical section in the plane $x x$ Fig. 1. Fig. 5 is a similar section in the plane $y y$ Fig. 1. Fig. 6 is a face view of the die roller detached. Fig. 7 is an end view of the clutch sleeve detached on a smaller scale than the previous figures. Fig. 8 is an end view of the driving pulley.

In the drawings the letter A designates the base of a frame which is supported by a column B or any other suitable means. From the base A rise three standards C, D, E, and the standards D E are connected by a vertical web F, all these parts being cast or formed in any other suitable manner. The standards D E form the bearings for a shaft G on which is mounted a cog wheel c which engages a cog wheel d mounted on the driving shaft I which has its bearing in the standard E and on which is loosely mounted a belt pulley e which can be thrown in gear with the shaft I by means of a clutch sleeve f . This clutch sleeve is feathered on the driving shaft and it is actuated by means of a lever g mounted on a bracket h which extends from the base A and which can be secured in the desired position by means of a pin i . In the standards D E is also mounted a shaft J which forms the bearing for a bifurcated lever K in the upper ends of which is mounted a shaft H which is geared with the shaft G by the cog wheel b which meshes into the cog wheel a . The lever K is exposed to the action of two set screws $k k$ (Fig. 5) by means of which it can be adjusted and locked in the required position. The shaft G carries the die roller L and the shaft H the feed roller M. By means

of the set screws $k k$ the feed roller can be adjusted at the required distance from the die roller. The die roller L carries the die l and the end gage m . The die l projects beyond the periphery of the roller L and it is provided with an L shaped shank l' which engages a corresponding groove l^2 in the body of the die roller. A set screw l^3 serves to secure the die in the required position (Figs. 4 and 6). By these means the die can be adjusted to conform to the width of the article to be skived. The end gage m is provided with an L shaped shank m' which engages a groove m^2 in the body of the die roller and a set screw m^3 (Figs. 4 and 6) serves to secure the end-gage in the required position.

On the top of the lever K (see Fig. 1) is secured a bracket N from which extends a guard n over the feed roller M. The rear end of the guard (see Fig. 2) forms the bearing for a pin n' on which is mounted a series of scrapers n^2 (Fig. 1) which extend into circular grooves in the feed roller and which can be adjusted by means of set screws n^3 extending through a flange n^4 (Figs. 2 and 4) and bearing on the tail ends of the scrapers. The object of these scrapers is to prevent the teeth of the feed roller from becoming clogged up by particles of leather during the operation of skiving.

The cog wheels $a b$ are protected by a hood o extending from a bracket O which is secured to the standard E. On the top of the standard D is secured a bracket P which carries the edge gage p .

Q is the knife which is secured to a head R and can be adjusted and locked in the required position by screws $q q$ and set screws $q' q'$. The knife head R is mounted on a shaft r which has its bearings in the standards C D and from this head extends a toothed segment r' which engages a worm screw s mounted in a lever S (best seen in Fig. 4) which swings on an arbor s' and is exposed to the action of a screw s^2 . By means of the worm screw s the cutting edge of the knife can be adjusted at the required distance from the die roller and by means of the screw s^2 the worm screw can be forced up firmly against the toothed segment r' so as to lock the knife in the required position. The arbor s' has its bear-

ings in the standards C D but it extends beyond the standard C (Figs. 1 and 2) and forms the guide for a bracket T which is provided with a fixed bearing t for the outer end of the shaft G and with an adjustable journal box t' for the outer end of the shaft H. A set screw t^2 serves to lock this adjustable journal box in the required position, and this journal box is made adjustable in order to be able to accommodate the same to the movements of the feed roller if the same is adjusted toward and from the die roller by means of the lever K and the setscrews $k k$ (Fig. 5). The bracket T is locked on the shaft s' by means of a set screw t^3 and when this set screw is unscrewed the bracket can be moved out on the shaft s' so that different die rollers L can be introduced on the shaft G said die rollers being feathered on the shaft G.

The die l shown in the drawings is intended for producing lifts for boot or shoe heels but it is obvious that dies for different articles such as counter stiffeners, insoles or shank stiffeners may be introduced and in order to accomplish this purpose, the die roller is provided with the L shaped groove l^2 as above described. It must also be remarked, that the knife splits the blank as the latter is carried between the die roller and the feed roller and the amount split off depends upon the formation of that portion of the die which protrudes beyond the surface or periphery of the die roller.

The feed wheel M is provided with sharp long teeth so that the surplus material is pressed into these teeth and firmly held until the knife separates said surplus from the body of the blank. Of course in order to accomplish this purpose the lever K which carries the shaft of the feed wheel must be firmly locked in the required position.

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

1. The combination substantially as herein described of the knife Q, the die roller L and

its shaft G mounted in fixed bearings the feed roller M and its shaft H mounted in adjustable bearings and the movable bracket T provided with a fixed bearing for the shaft G and with an adjustable bearing for the shaft H.

2. The combination substantially as herein described of the knife Q, the die roller L and its shaft G mounted in fixed bearings, the feed roller M and its shaft H mounted in adjustable bearings and means for locking said bearings in the required position.

3. The combination substantially as herein described of the die roller L mounted on a rotary shaft G, the feed roller M mounted on a rotary shaft H, the knife head R mounted on the shaft r , the knife Q secured to the knife head, the toothed segment r' extending from the knife head, the swinging lever S, the worm screw s , mounted in this lever and engaging the toothed segment r' and the screw s^2 acting on the lever S.

4. The combination substantially as herein described of the knife, the die roller, the feed roller provided with circular grooves, the guard n extending over the feed roller, the scrapers n^2 suspended from the guard and the set screws n^3 for adjusting the scrapers.

5. The combination substantially as herein described of the knife, the feed roller, the die roller the die l and means substantially as described for laterally adjusting said die.

6. The combination substantially as herein described of the knife, the feed roller, the die roller provided with a groove m^2 the end gage m provided with a shank to engage the groove m^2 and the set screw m^3 for securing the end gage in the required position.

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

JACOB R. SCOTT.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.