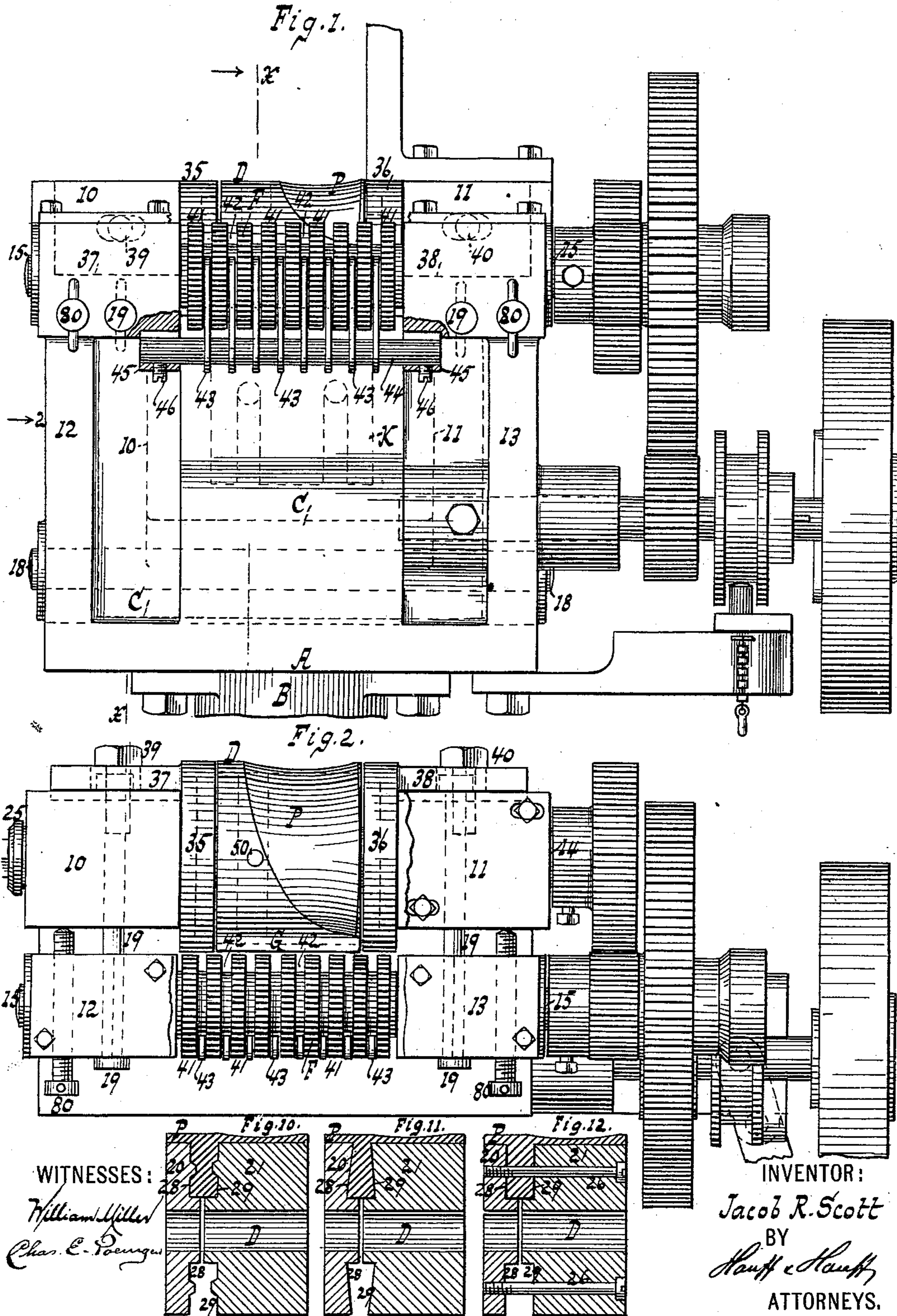


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MACHINE FOR SKIVING AND SPLITTING LEATHER.

No. 541,691.

Patented June 25, 1895.

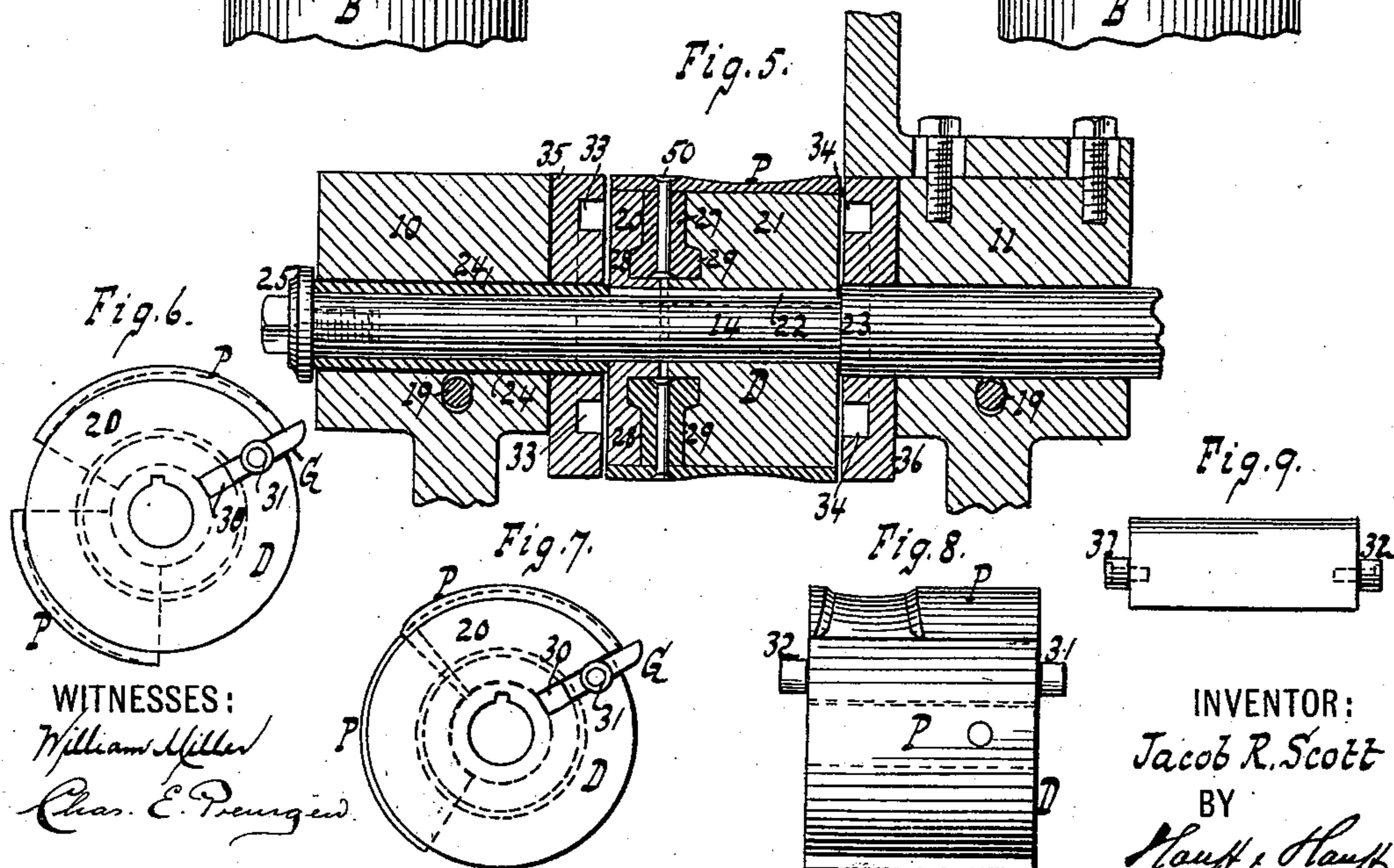
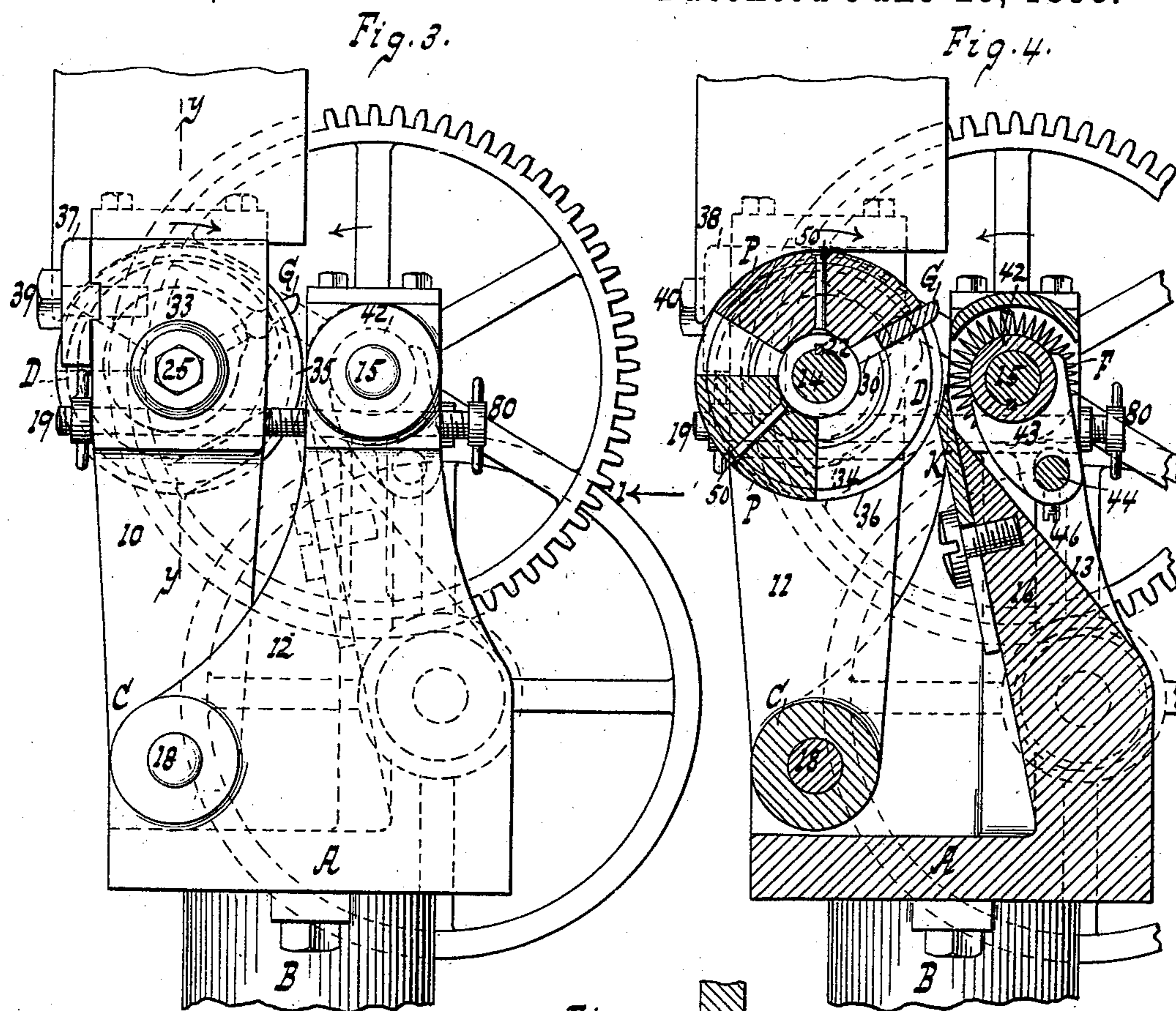


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# UNITED STATES PATENT OFFICE.

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

## MACHINE FOR SKIVING AND SPLITTING LEATHER.

SPECIFICATION forming part of Letters Patent No. 541,691, dated June 25, 1895.

Application filed November 9, 1894. Serial No. 528,293. (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 Machines for Skiving and Splitting Leather, of which the following is a specification.

This invention relates to certain improvements in machines for skiving and splitting leather the principal object of which is to provide die plates which can easily be inserted into and removed from the die roller and which can readily be adjusted according to the length of the articles to be skived or split.

The peculiar and novel construction of the new machine is pointed out in the following specification and claims and illustrated in the accompanying drawings, in which—

Figure 1 represents a rear elevation looking in the direction of arrow 1, Fig. 3. Fig. 2 is a plan or top view. Fig. 3 is a side elevation looking in the direction of arrow 2, Fig. 1. Fig. 4 is a transverse vertical section in the plane  $x x$  Fig. 1 and looking in the direction of the arrow opposite to that line. Fig. 5 is a longitudinal vertical section in the plane  $y y$  Fig. 3. Fig. 6 is an end view of the die roller detached containing two die plates adjusted at a distance from each other. Fig. 7 is a similar view of the die roller containing two die plates of different shape. Fig. 8 is a face view of the die roller showing the roller studs of the end gage on its opposite sides. Fig. 9 is a plan view of the end gage detached. Fig. 10 and 11 are longitudinal sections of the die roller showing the die plates with shanks of different form. Fig. 12 is a longitudinal section of the die roller showing a modification of the means for clamping the shanks of the die plates.

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 this base rise two standards 12, 13 in the lower part of which is mounted a shaft 18, on which is mounted a frame C having two standards 10 and 11 which form the bearings for a shaft 14, on which is mounted the die roller D. In the standards 12, 13 is mounted a shaft 15 which carries the feed roller F and these standards are connected by a web 16 to which is secured the knife K. The frame C

swings freely on the shaft 18, so that the die roller D which is mounted in the upper portion of said frame, can be moved toward and from the feed roller F. Screw bolts 19, 19 and set screws 80, 80 (best seen in Fig. 2) serve to adjust the die roller in the required position.

The die roller is composed of two sections 20, 21 which engage a feather key 22 secured in the shaft 14 so that they can be moved toward and from each other, while they are compelled to rotate with the shaft. This shaft is provided with a shoulder 23 (Fig. 5) forming an abutment for the section 21 of the die roller and on that end of said shaft, which carries the feather key 22, is loosely mounted a sleeve 24 which can be forced inward by means of a screw 25 tapped into the end of shaft 14. By means of this screw 25 and sleeve 24 the section 20 of the die roller can be forced toward the section 21, but it is obvious that other means can be employed for forcing the sections 20 and 21 of the die roller toward each other such for instance as those illustrated in Fig. 12 where screws 26 are used for this purpose.

On the die roller D are secured die plates P (one or more) the outer surfaces of which conform to the articles to be cut or skived. Each die plate is made in the form of a segment corresponding to the circumference of the die roller and it is provided with a segmental shank 27 which engages circular recesses 28, 29 formed in the inner surfaces of the sections 20, 21 of the die roller.

The shank 27 may be made integral with the die plate (see Figs. 10, 11, and 12) or it may be secured to the die plate by screws or rivets 50 (Fig. 5) and the shank and the recesses 28, 29 in the die roller can be made in such a manner, that if the sections 20, 21 of the die-roller are compressed by means of the screw 25 and sleeve 24, the shank of the die plate will be firmly clamped and retained in the required position.

Different forms of shanks are shown in Figs. 5, 10 and 11 and in Fig. 12 a shank is shown with parallel side faces, said shank being retained in position by the screws 26.

In order to introduce the die roller D, the shaft 14 is withdrawn from its bearings, the die roller together with the required die plate is introduced between the standards 10, 11

then the shaft 14 is replaced so as to pass through the die roller and finally the die roller is secured in the required position by means of the sleeve 24 and screw 25. The die roller D is provided with a radial slot 30 which forms the guide for the end gage G. This slot extends throughout the entire length of the die roller or through both sections of the same and from the opposite ends of the end gage extend studs 31, 32 which engage cam grooves 33, 34 in plates 35, 36 which are provided with flanges 37, 38 (Fig. 2) and secured to the standards 10, 11 by means of screws 39, 40.

In order to adjust the die roller with the end gage in the proper position, the two sections of the die roller are placed against each other, the end gage is introduced into the slot 30 of the die roller and the plates 35, 36 are adjusted on the opposite ends of the die roller so that the studs 31, 32 of the end gage engage the cam slots 33, 34, then the plates 35, 36 together with the die roller are introduced between the standards 10, 11, the shaft 14 is inserted and the plates 35, 36 are secured in the proper position by means of the screws 39, 40, the flanges 37, 38 being provided with elongated slots as shown in dotted lines in Fig. 2, so that the plates 35, 36 can be adjusted toward and from each other as much as may be required. By these means the end gage G is compelled to move bodily and uniformly in and out, so that no portion thereof is liable to protrude beyond the circumference of the die roller and injury to the knife is avoided.

The feed roller F is made of a solid piece of metal and it is provided with feed sections 41 which are separated from each other by intermediate circular grooves 42. When the machine is in operation, the teeth of the feed roller and the intermediate grooves 42 are liable to become clogged up by small particles of leather and many attempts have been made to provide means by which this clogging up can be effectually and absolutely prevented. I have provided a series of strippers 43 the outer edges of which are concave forming segments of circles the radii of which correspond to the radii of the circular bottoms of the grooves 42 while the ends of said strippers form sharp points which bear against the circular bottoms of the grooves 42 provided the strippers can be properly adjusted. In order to effect this purpose, the strippers are loosely mounted on a shaft 44 which has its bearings in oblong slots formed in lugs 45 (see Figs. 1

and 4) and which is exposed to the action of set screws 46, so that the inner faces of the strippers can be readily adjusted in close contact with the circular bottoms of the grooves 42.

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

1. In a machine for skiving and splitting leather, the combination of a die roller made in two sections, a shaft on which the die roller is mounted, a die plate projecting over the periphery of each section of the die roller and provided with a shank, means for clamping said shank between the sections of the die roller, a feed roller, and a knife, substantially as described.

2. The combination of a die roller made in two sections, each section being provided on its inner surface with a groove, a shaft on which the die roller is mounted, a die plate projecting over the periphery of each section of the die roller and provided with a shank constructed to engage the grooves in the inner faces of the sections of the die plate, means for clamping said shank between the sections of the die roller, a feed roller and a knife substantially as described.

3. The combination of a die roller made in two sections, a shaft provided with a shoulder which forms an abutment for one section of the die roller, a sleeve fitted loosely on the shaft and bearing against the other section of the die roller, a screw engaging a screw thread in the shaft and serving to force the sleeve inward, a die plate projecting over the periphery of each section of the die roller and provided with a shank which when placed between the sections of the die roller, can be firmly clamped in position by means of the screw, a feed roller and a knife substantially as described.

4. The combination with the knife, the die roller and the feed roller, of two plates which are removably secured to the frame on opposite ends of the die roller, a cam groove formed in each of these plates and an end gage fitted into a slot in the die roller and provided with studs constructed to engage the cam grooves in the two plates substantially as described.

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.