

No. 675,207.

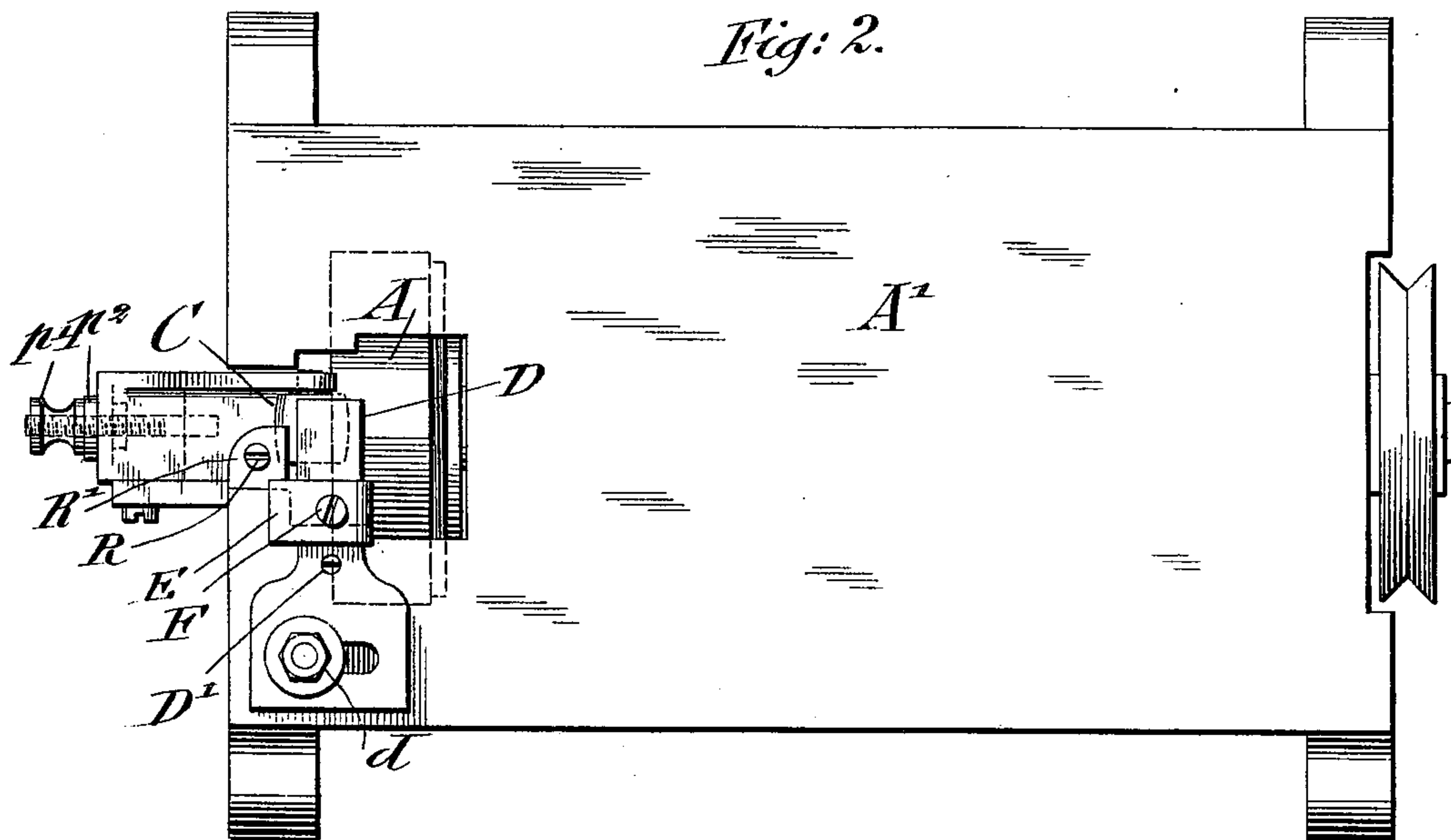
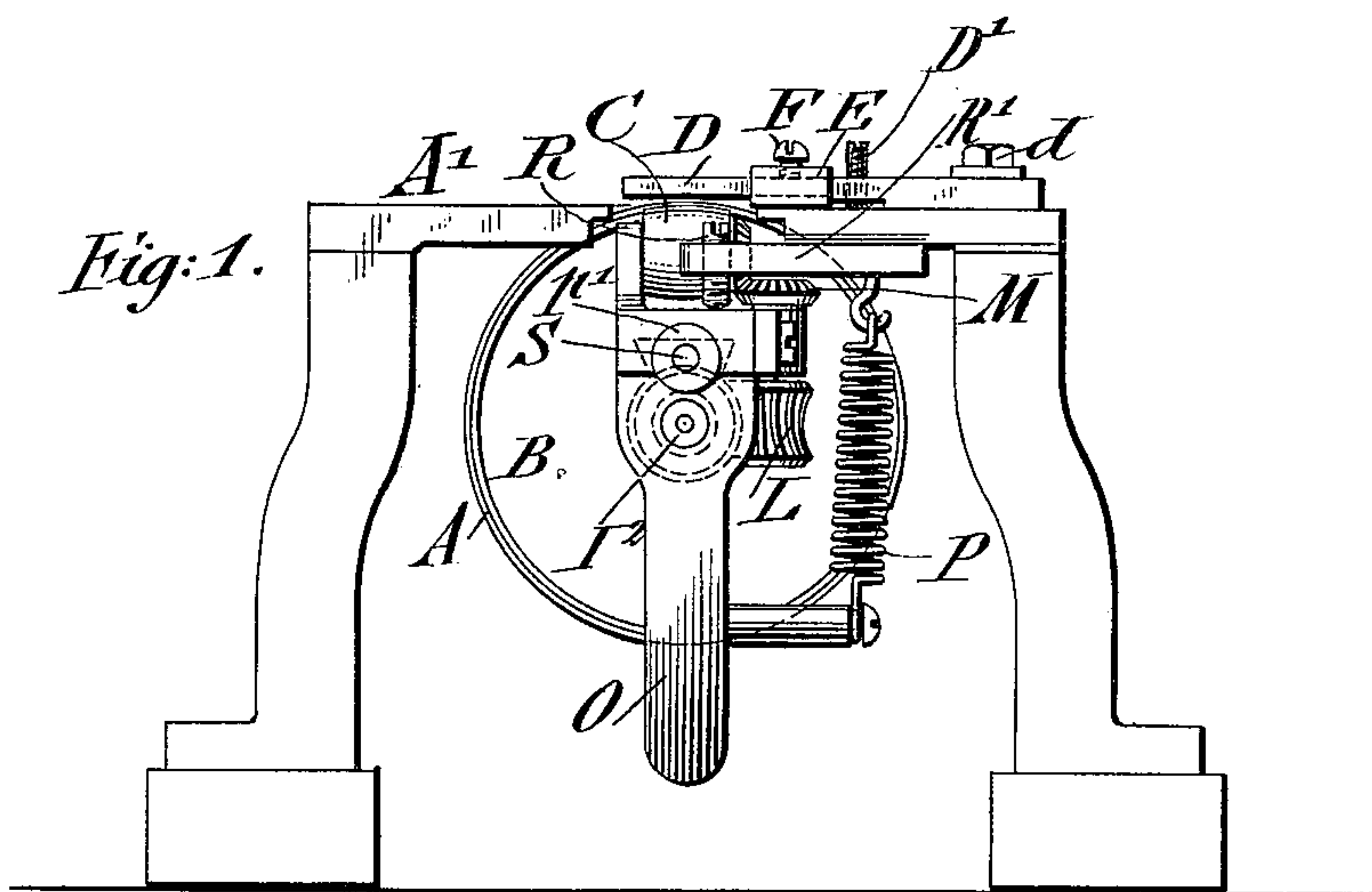
Patented May 28, 1901.

B. FISCHER.  
MACHINE FOR SKIVING LEATHER.

(Application filed Sept. 22, 1899.)

(No Model.)

3 Sheets—Sheet 1.



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Fig: 3.

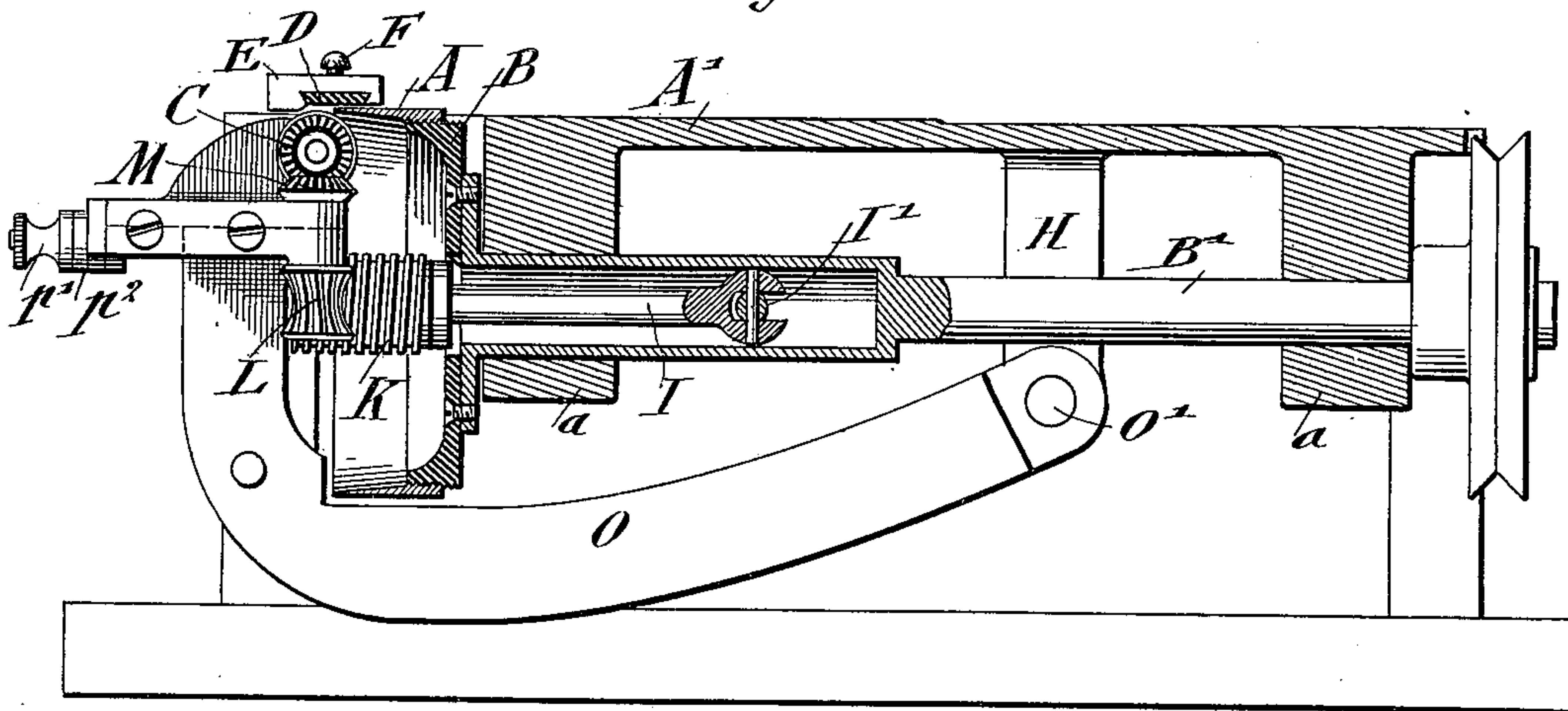
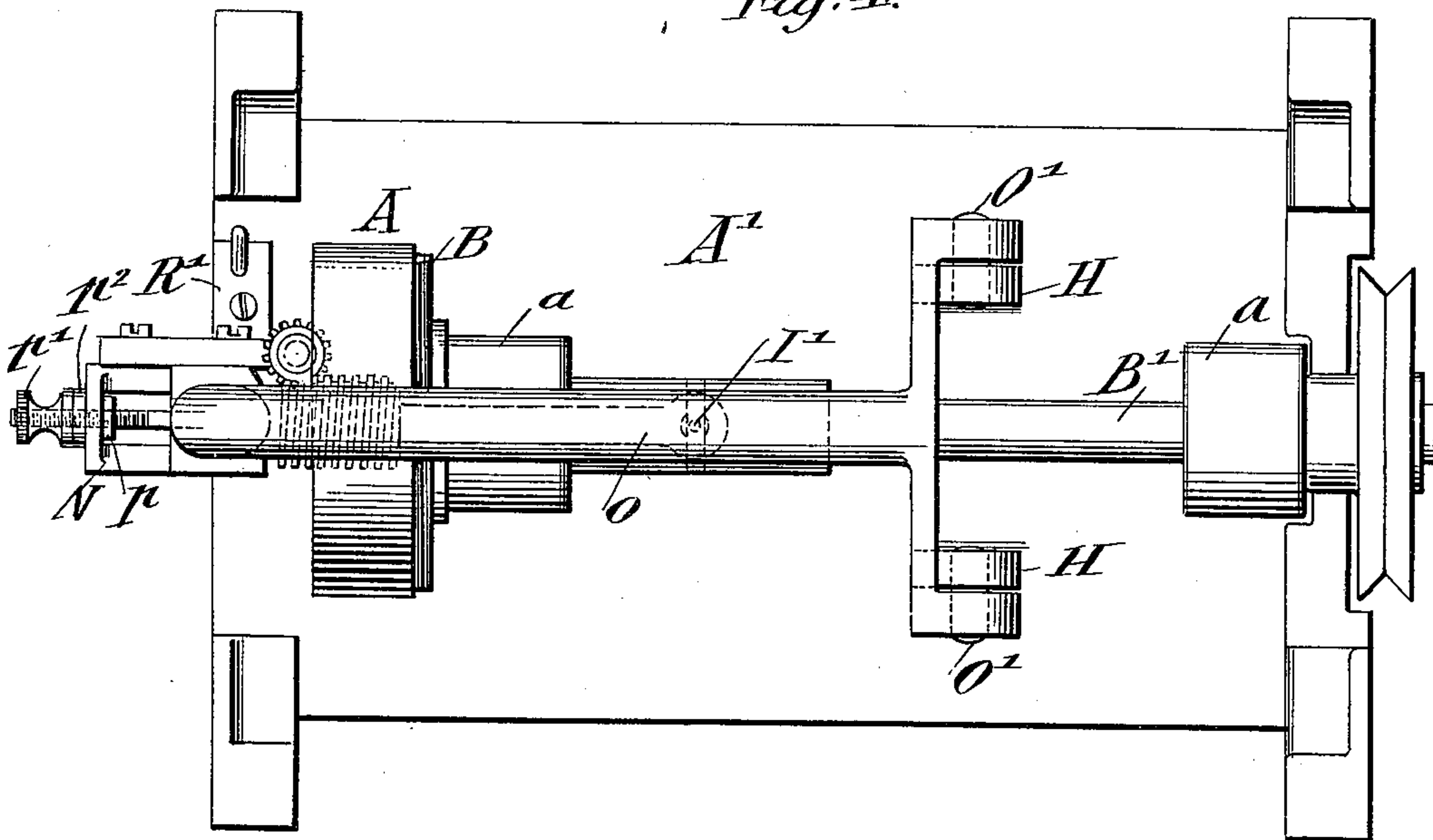


Fig: 4.



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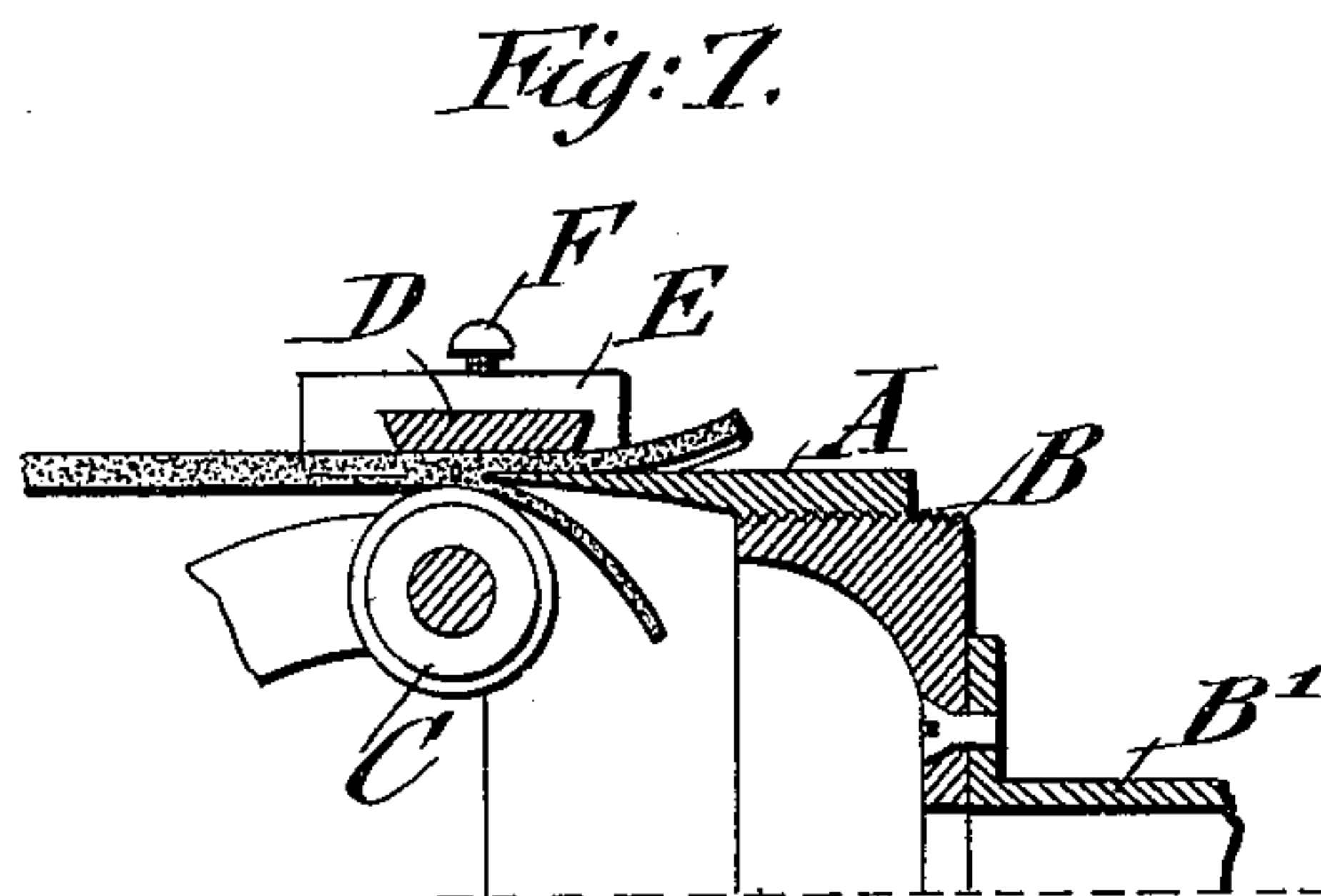
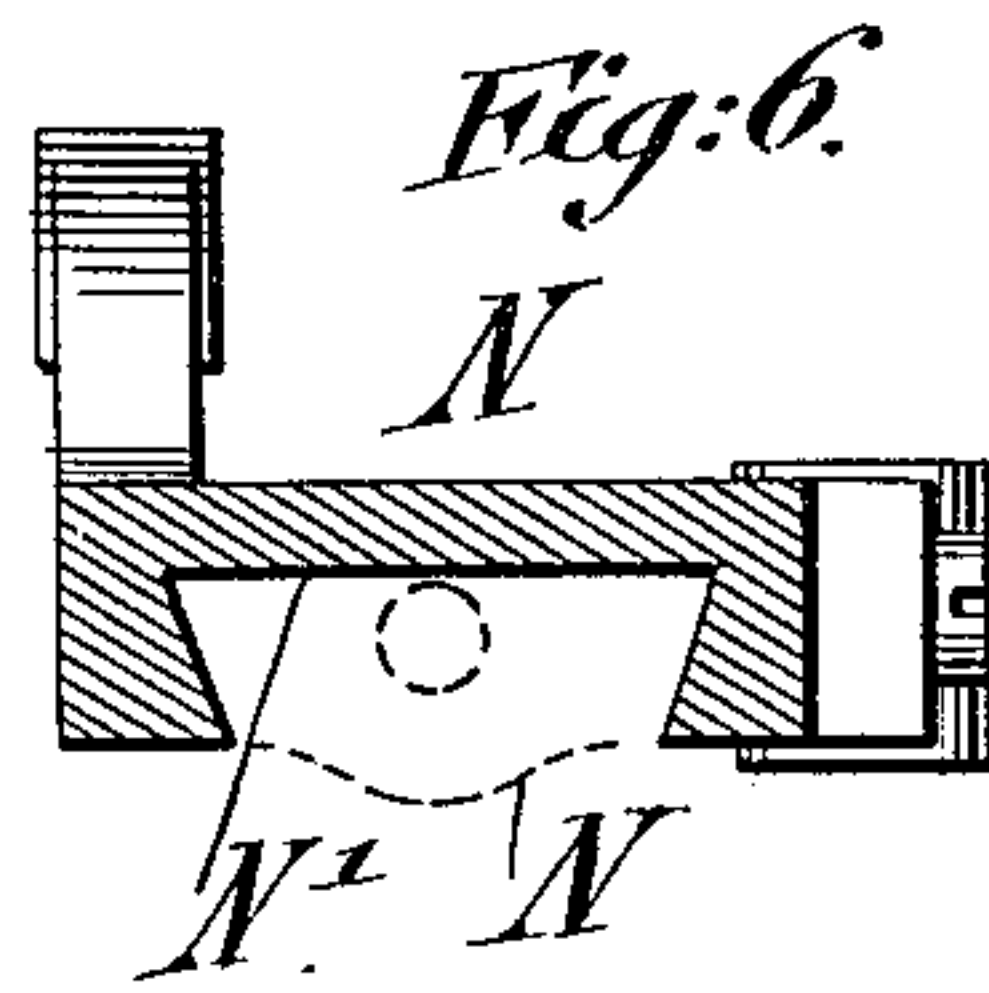
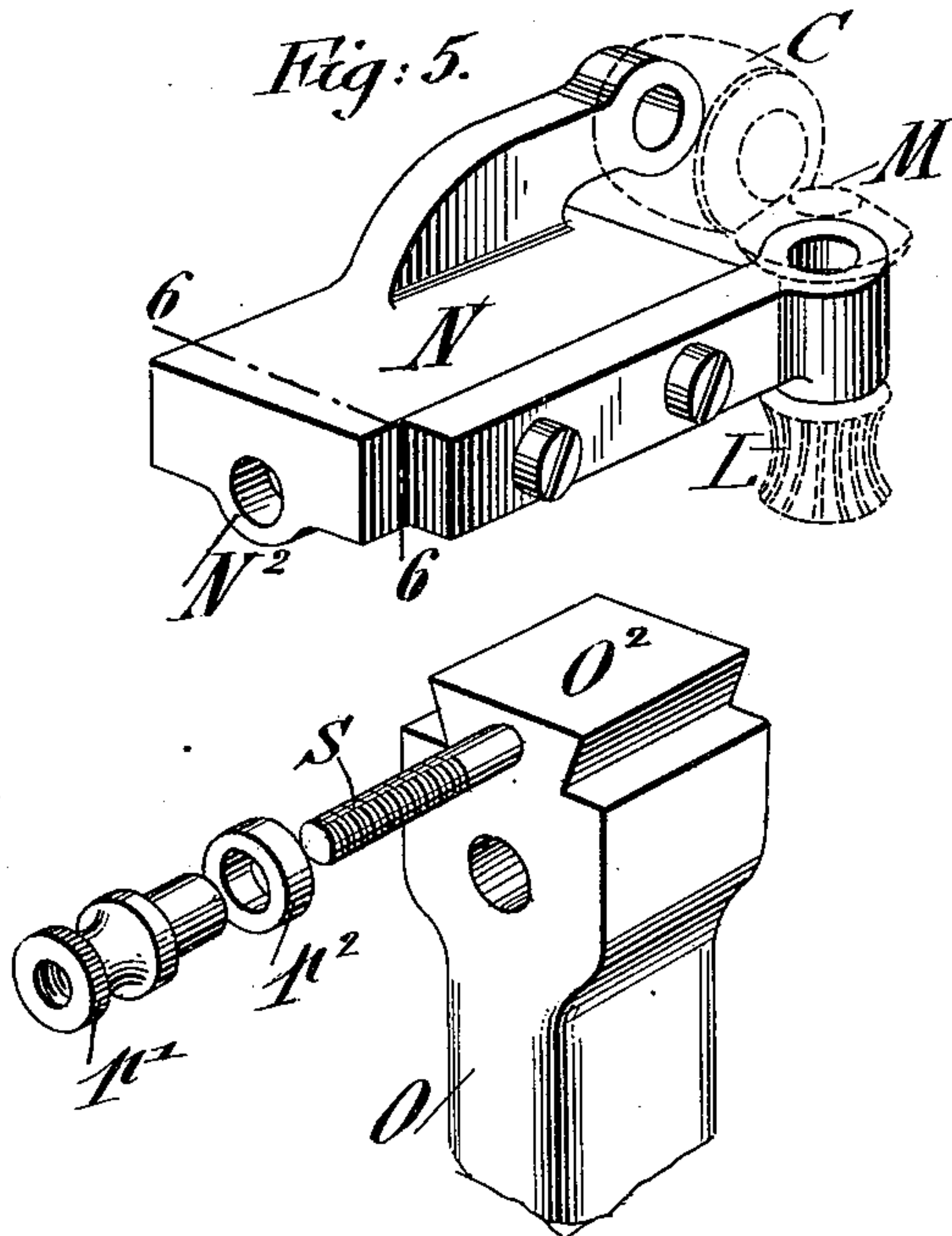
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# UNITED STATES PATENT OFFICE.

BENNO FISCHER, OF CANNSTADT, GERMANY.

## MACHINE FOR SKIVING LEATHER.

SPECIFICATION forming part of Letters Patent No. 675,207, dated May 28, 1901.

Application filed September 22, 1899. Serial No. 731,372. (No model.)

*To all whom it may concern:*

Be it known that I, BENNO FISCHER, a subject of the King of Württemberg, residing at Cannstadt, in the Kingdom of Württemberg and Empire of Germany, have invented certain new and useful Improvements in Machines for Skiving Leather, of which the following is a specification.

The machines for skiving leather which are employed in the shoe-making and book-binding trades are devised to cut the leather so that it is thinner at the edge than in the center. The cut surface must be sloped, so as to enable the leather to be turned over easily at the edge.

The class of skiving-machines to which my invention relates has a circular cutter, to the sharp edge of which the leather to be cut is applied by means of a feed-roller, on which a guide presses the leather.

The object of the present invention is to improve the feed and guide mechanism whereby the leather is fed to and from the circular cutter.

The invention consists of a skiving-machine which comprises, in connection with the table, the cylindrical cutter and feed-roller, a guide which extends over the feed-roller and cutter and which is adjustable relatively to the feed-roller and cutter, and a stop-gage arranged on the said guide, as hereinafter described and then particularly claimed.

In the accompanying drawings, Figure 1 is a front elevation. Fig. 2 is a plan view. Fig. 3 is a vertical longitudinal section of the machine, partly in elevation. Fig. 4 is a reversed plan. Fig. 5 is a perspective view showing the segregated parts of the means for adjusting the feed-roller on its supporting-lever. Fig. 6 is a section on line 6 6, Fig. 5; and Fig. 7 is an enlarged detail in section, showing a piece of leather in the act of being skived.

Similar letters of reference indicate corresponding parts.

A indicates a cylindrical or crown cutter, which is provided with an internal screw-thread, so that it may be screwed onto a screw-threaded disk B, which is mounted on one end of a shaft B', journaled in bearings a of a table A'. The leather to be skived is fed

to the cutter A by a feed-roller C, which is arranged nearly in contact with the knife-edge of the cutter and partly extends under it, so that the leather until it is cut rests on the said feed-roller. For properly guiding the leather it is pressed along under a guide D between the same and the circumference of the feed-roller C, said guide being adjustably fixed to the table at d and extending partly over the cutter A, Figs. 1, 2, and 3. On the guide D there is adjustably fixed, by means of a set-screw F, a stop-gage E.

The feed-roller C is rotated by means of the shaft B' through the medium of suitable worm-gearing K L and bevel-gearing M. In order that the machine may be used for leather of various thicknesses, the feed-roller C must be set adjustably with relation to the cutter A. This is effected by supporting the gearing and roller C on a lever O, which is pivoted at O' to hangers H on the table A' and is acted on by a spring P, which forces the feed-roller C toward the cutter A. A set-screw R, screwed through a lug R' on the table, serves for maintaining the necessary distance between the cutter A and the feed-roller C, so that the roller does not actually press against the cutter, said screw holding down the lever O and limiting the pull of the spring P.

The thickness of the sections to be cut off from the material is determined by adjusting the guide D, by means of a pressure-screw D', toward the cutter A, and the material under the influence of the guide exercises a downward counter-pressure on the spring-pressed guiding-roller C. In this manner the material is kept firmly pressed on the surface of the feed-roller, and thus the positive feed of the material to the cutter is assured.

In changing the position of the feeding mechanism above the shaft B' the proper engagement between the worm K of the shaft B' and the worm-wheel L is hindered, and hence in order to maintain an accurate inter-meshing the worm K is fixed on a special shaft I, which, on the one hand, is connected, (see Figs. 3 and 4,) by means of a universal joint I', with the shaft B', which is here with the object of economizing space provided with a hollow end, into which the shaft I extends,



and, on the other hand, is mounted on the oscillating lever O by means of a ball-and-socket joint I<sup>2</sup>, Fig. 1.

The size of the cutter allows for its being ground frequently. The cutting edge is thus reduced more and more toward the center of the machine, so that the feed-roller C must be adjusted accordingly. For this purpose (see Figs. 4, 5, and 6) the shaft of the worm-wheel L and bevel-gear M is arranged with the feed-roller C on a bearing-piece N, adjustably supported on the upper end of the lever O, the latter having a dovetail projection O<sup>2</sup>, which is received in a corresponding groove N' in piece N. The adjustment is preferably effected by means of a screw-pin S on the lever O, which passes through a perforated lug N<sup>2</sup> on bearing-piece N, and by a nut upon one side of the lug and a nut and washer p' and p<sup>2</sup> on the other side, the same being screwed onto the screw-pin S.

The operation of the machine is as follows: After the stop-gage E is adjusted on the guide D according to the width of the section to be cut and the guide D set by means of pressure-screw D' with regard to the cutter A according to the thickness of the section to be cut the leather is guided in, with the edge resting against the gage E between the feed-roller C and guide D. The feed-roller takes hold of the leather and presses it against the sharp edge of the cylindrical cutter, which operates with a circular movement, whereby the surface cut is somewhat hollowed out in accordance with the cylindrical shape of the cutter. The cut-off piece falls out forward through the inside of the cutter, while the leather which has been skived out is guided over the table A'. (See Fig. 7.) In this manner the good side of the leather does not come in contact with the rough surface of the feed-roller, and therefore it is not damaged; also, both straight and profiled cuts can be made with the machine. Straight cuts would be produced by making the guide D with a surface concentric to the cutter, so that the interme-

diate space between the guide D and cutter A, through which the material to be cut is passed, is of equal height in all parts. Of course the roller must also be concentric to the cutter. The piece cut off the leather will then be of equal thickness throughout, and the cut leather has an even surface. In the same manner profiled pieces can be cut off by means of profiled guides D and feed-rollers C.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a machine for skiving leather, the combination of a table, a rotary cylindrical cutter, means for rotating the same, a feed-roller adjacent to the cutter, means for turning the feed-roller, and a guide extending over the feed-roller and cutter and adjustable relatively to the feed-roller and cutter, substantially as set forth.

2. In a machine for skiving leather, the combination of a table, a rotary cylindrical cutter, means for rotating the same, a feed-roller, means for turning the feed-roller, a guide extending over the cutter and feed-roller, and an adjustable stop-gage mounted on said guide, substantially as set forth.

3. In a machine for skiving leather, the combination of a table, a rotary cutter, means for rotating said cutter, a guide, a feed-roller, said guide and feed-roller being arranged on opposite sides of the cutting edge of the cutter, a lever pivoted to the table, and supporting said feed-roller, suitable gearing also supported on said lever, and means for turning said feed-roller through the medium of said gearing, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

BENNO FISCHER.

Witnesses:

KONRAD ZEISIG,  
HERMAN WAGNER.