

(No Model.)

J. R. SCOTT.  
CUTTING MACHINE.

No. 549,027.

Patented Oct. 29, 1895.

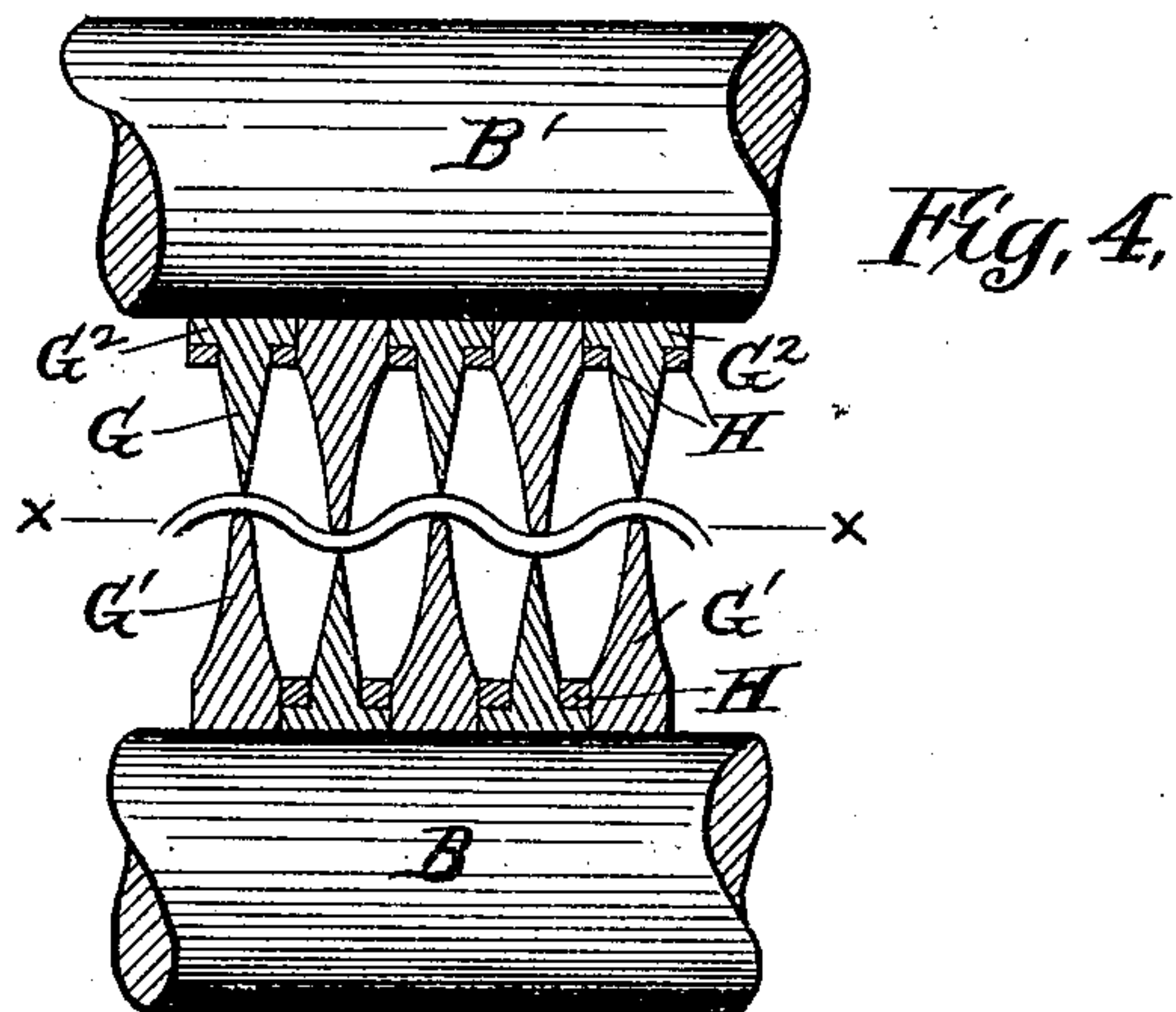
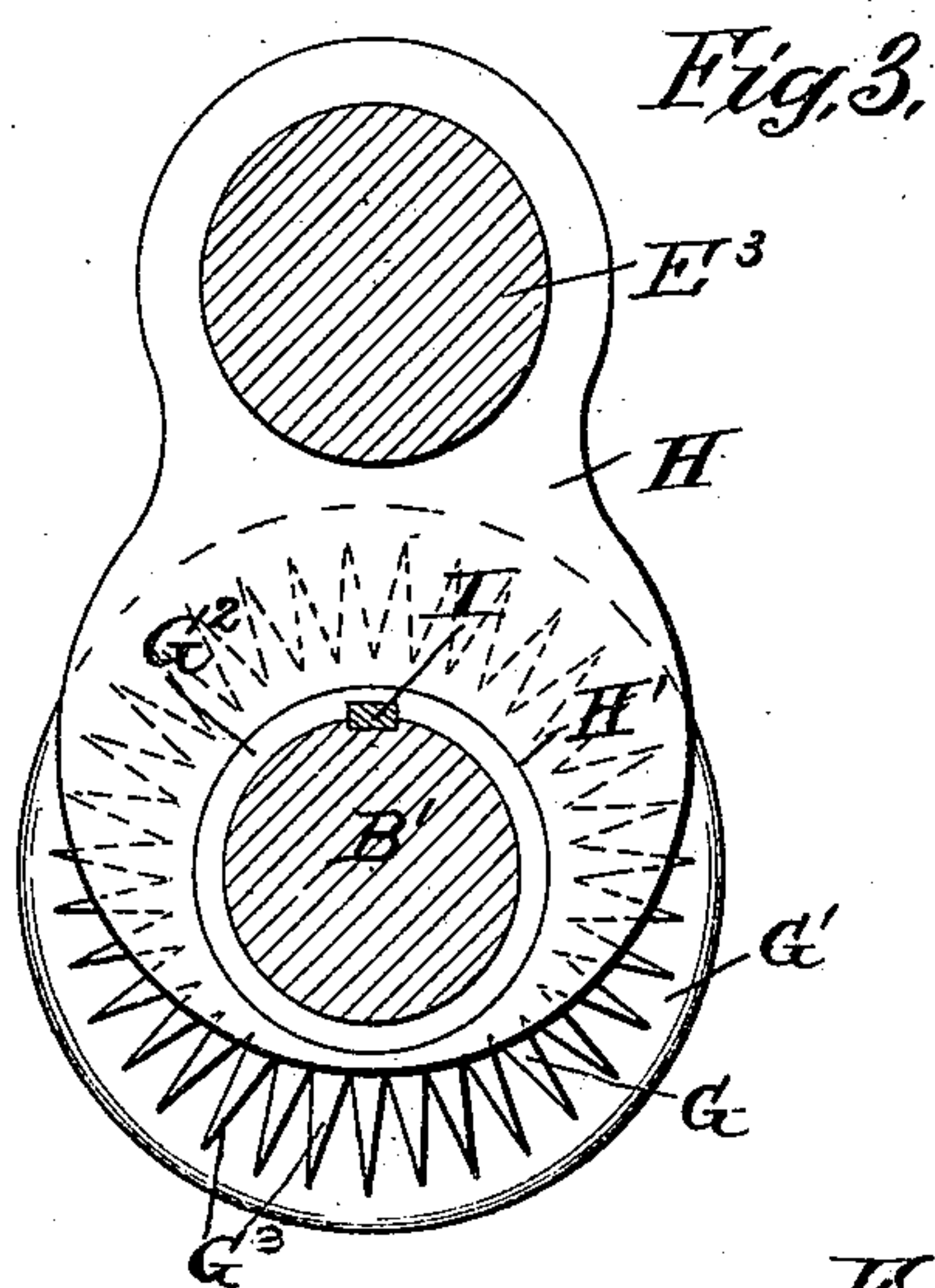
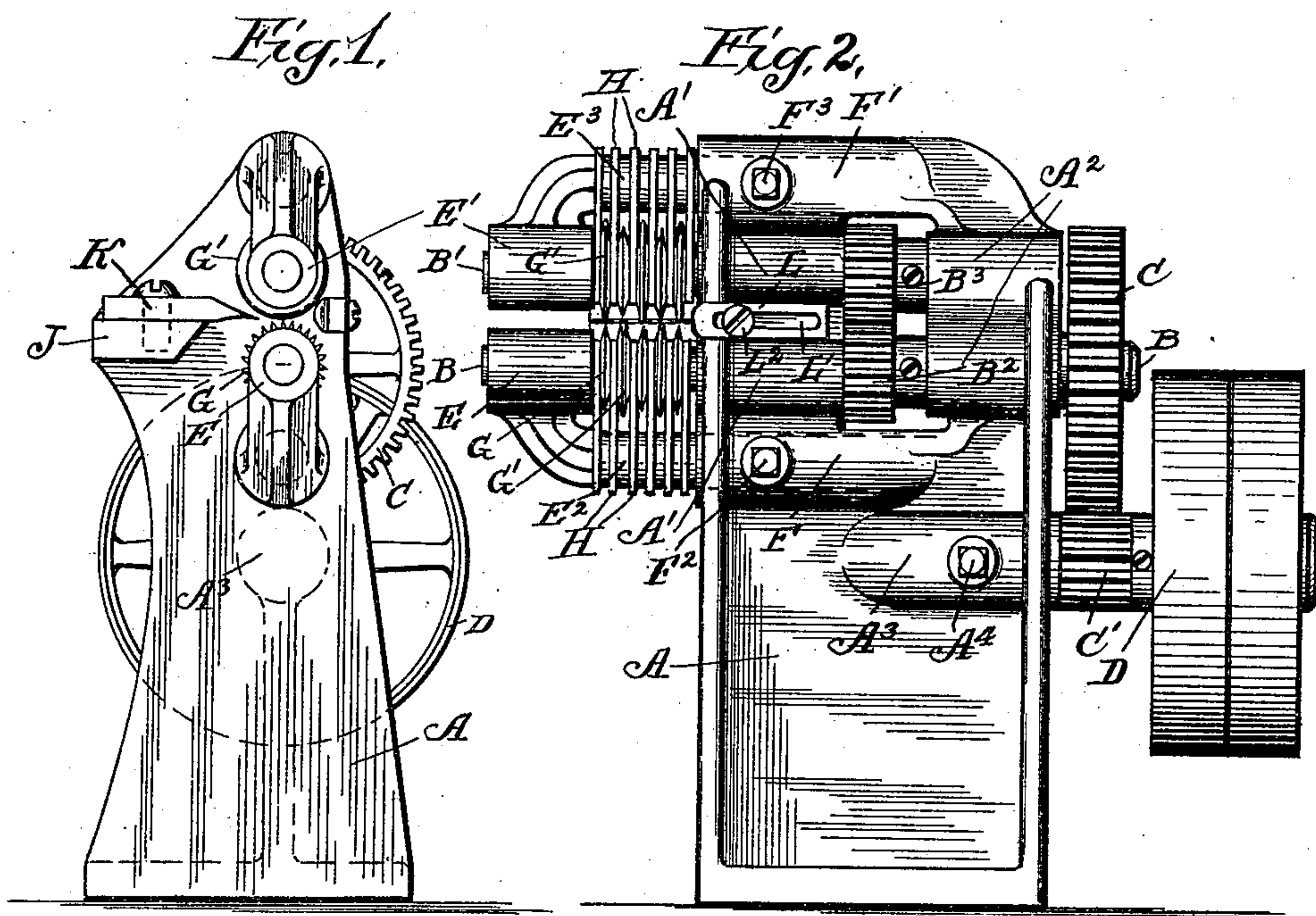
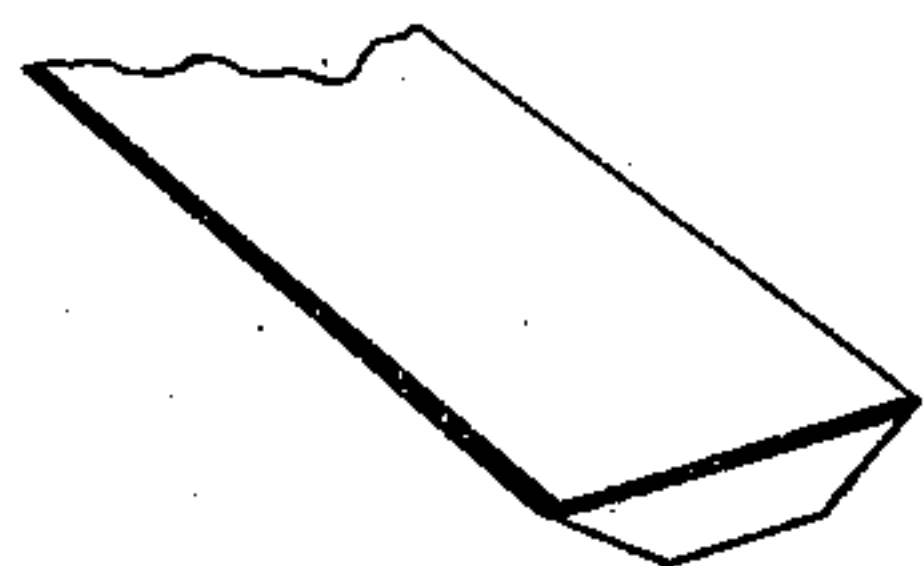


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## CUTTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 549,027, dated October 29, 1895.

Application filed February 23, 1895. Serial No. 539,337. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB RUPERT SCOTT, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented a certain new and useful Cutting-Machine; and I declare the following to be a full, clear, and concise description of the same, reference being had to the accompanying drawings and specification.

The object of my invention is to produce a simple and effective machine for cutting materials, such as leather, &c., into strips properly formed for use as shank-pieces for boots and shoes, or for covering, fillets, weather-strips, or any desired use.

Referring to the drawings, Figure 1 is an end elevation of my machine. Fig. 2 is a side elevation of same. Fig. 3 is an enlarged detail drawing of the feeding and bending disks and stripper, together with the shafts upon which same are mounted. Fig. 4 shows a vertical section of a portion of the feeding and bending disks and strippers, the shafts upon which the disks are mounted being shown in full. Fig. 5 is a perspective view of a fragment of a strip as cut by my machine.

Similar letters refer to like parts throughout the specification and drawings.

My machine consists of a suitable frame A, provided near its upper portion with two sets of parallel bearings A' A<sup>2</sup>, having the parallel shafts B B' mounted therein. The shafts B B' are geared together by the pinions B<sup>2</sup> B<sup>3</sup>, provided with an equal number of teeth.

Secured upon one end of the shaft B is a large gear-wheel C, adapted to mesh with the pinion C', mounted upon or made integral with the hub of the driving-pulley D, mounted loosely upon an arbor secured in the socket A<sup>3</sup> of the frame by means of the set-screw A<sup>4</sup>.

The extreme left ends of the shafts B B', as shown in the drawings, are provided with the adjustable and removable bearings E E'. The bearings E E' are provided with shanks E<sup>2</sup> E<sup>3</sup>, which fit into the sockets F F' of the frame A. The shanks E<sup>2</sup> E<sup>3</sup> are secured in place by the set-screws F<sup>2</sup> F<sup>3</sup>.

Mounted upon the shafts B B' between the bearings A' and the outer bearings E E' are a series of feeding and bending disks G G' placed alternately. Placed on either side of the feeding-disks are strippers H.

The feeding and bending disks G G' are secured to the shafts B B' by means of the keys I.

The sides of the feeding-disks G are provided with annular rings G<sup>2</sup>, that fit into the openings H' of the stripper H. The feeding-disks are provided with the regularly-disposed sharp spurs G<sup>3</sup>, adapted to engage the material being fed.

Mounted upon the lug J of the frame A is a horizontal knife K, the edge of which lies centrally between the shafts B B'.

Mounted upon the side of the frame A is an adjustable gage, consisting of the plate L, having the slot L' and secured to the frame A by means of the set-screw L<sup>2</sup>.

The operation of my invention will be readily understood.

It will be seen that if motion be imparted to the driving-pulley D by means not herein shown motion will be imparted to the shafts B B' by means of the pinion C', gear-wheel C, and pinions B<sup>2</sup> B<sup>3</sup>. A corresponding motion will in turn be imparted to the feeding and bending disks G G', keyed to the shafts B B'.

It will be seen that if a piece of material be fed between the two sets of feeding and bending disks it will be fluted or corrugated, as shown in Fig. 4. This is due to the feeding-disks and bending-disks being of different diameters. The feed forces the material against the horizontal knife placed centrally of the two sets of disks, which cuts through the flutes or corrugations on the line *xx*, Fig. 4, producing a number of strips similar to the one shown in Fig. 5 of the drawings.

The feed is effected by the spurs G<sup>4</sup> of the feed-disks G engaging the material being fed, producing a steady and uniform speed. The peripheries of the bending-disks G' are made somewhat blunt and preferably oval, as shown in the drawings.

A greater or less number of feeding and bending disks might be mounted in a series, or they might be of greater or less diameter to suit the material being fed through the machine.

I have placed upon either side of the feeding-disks G strippers H, having their enlarged circular portion eccentric to the feeding-disks. The purpose of this is obvious, as it will be



seen that as the spurs pass between the strippers any adhering material will be forced from same.

I have placed upon the side of the frame A and centrally of the two sets of disks an adjustable gage that may be set at any desired position for various widths of material, thereby making it possible to use very narrow strips that might otherwise be wasted.

The thickness of material fed through a set of disks may vary considerably, as the spurs of the feed-disks will penetrate the material to a considerable depth, owing to their long slender form.

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

1. A cutting machine, having two sets of parallel feeding and bending disks, mounted upon suitably driven parallel shafts and a horizontal knife placed centrally as regards the two sets of rollers, all substantially as set forth and shown.

2. A cutting machine, having two sets of parallel feeding and bending disks mounted upon and secured to suitably actuated shafts, said sets consisting of feeding disks and bending disks placed alternately, strippers placed upon either side of said feeding disk, and a knife, placed centrally of the two sets of disks, all substantially as set forth and shown.

3. In a cutting machine, the combination with the frame, having suitable bearing there-

in, of the parallel shafts mounted in said bearings, said shafts also provided with adjustable and removable bearing at one end, feeding and bending disks mounted alternately upon said shafts, strippers adapted to relieve the feeding disks from clinging material, and a knife placed centrally of the two sets of disks, all substantially as set forth and shown.

4. In a cutting machine two sets of parallel rollers, each roller consisting of feeding disks and bending disks placed alternately, said feeding disks having suitable spurs or teeth formed on their peripheries and the bending disks having the smooth convex surface on their peripheries, all substantially as set forth and shown.

5. In a cutting machine, two sets of parallel rollers, each formed of a series of feeding disks and bending disks placed alternately upon suitable shafts, said feeding disks provided with tooth-serrations upon their peripheries, and the bending disks having smooth convex peripheries, the feeding disks and bending disks being of different diameters, and the feeding disks of one roller so placed as to oppose the bending disk of the opposite roller, all substantially as set forth and shown.

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