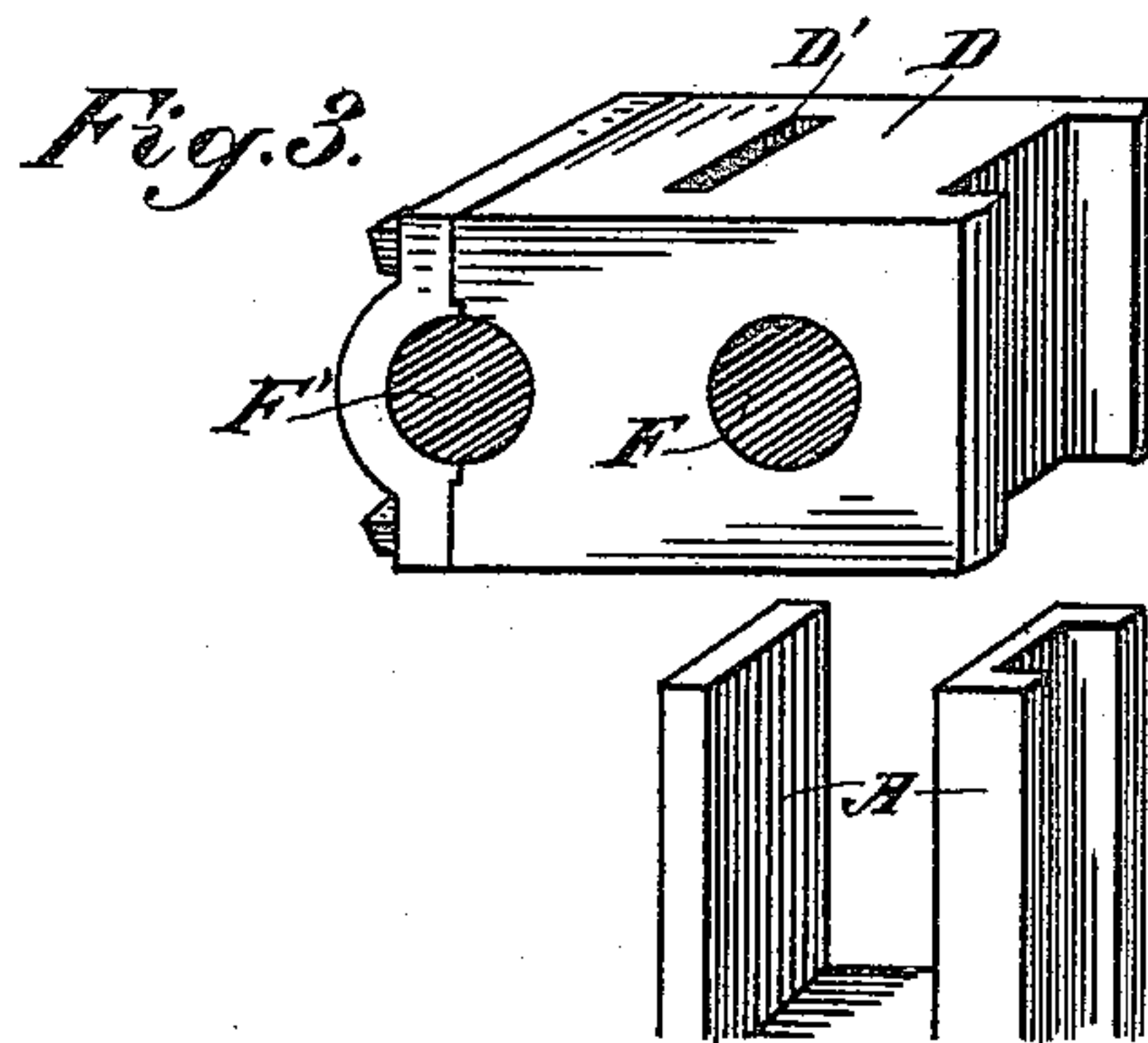
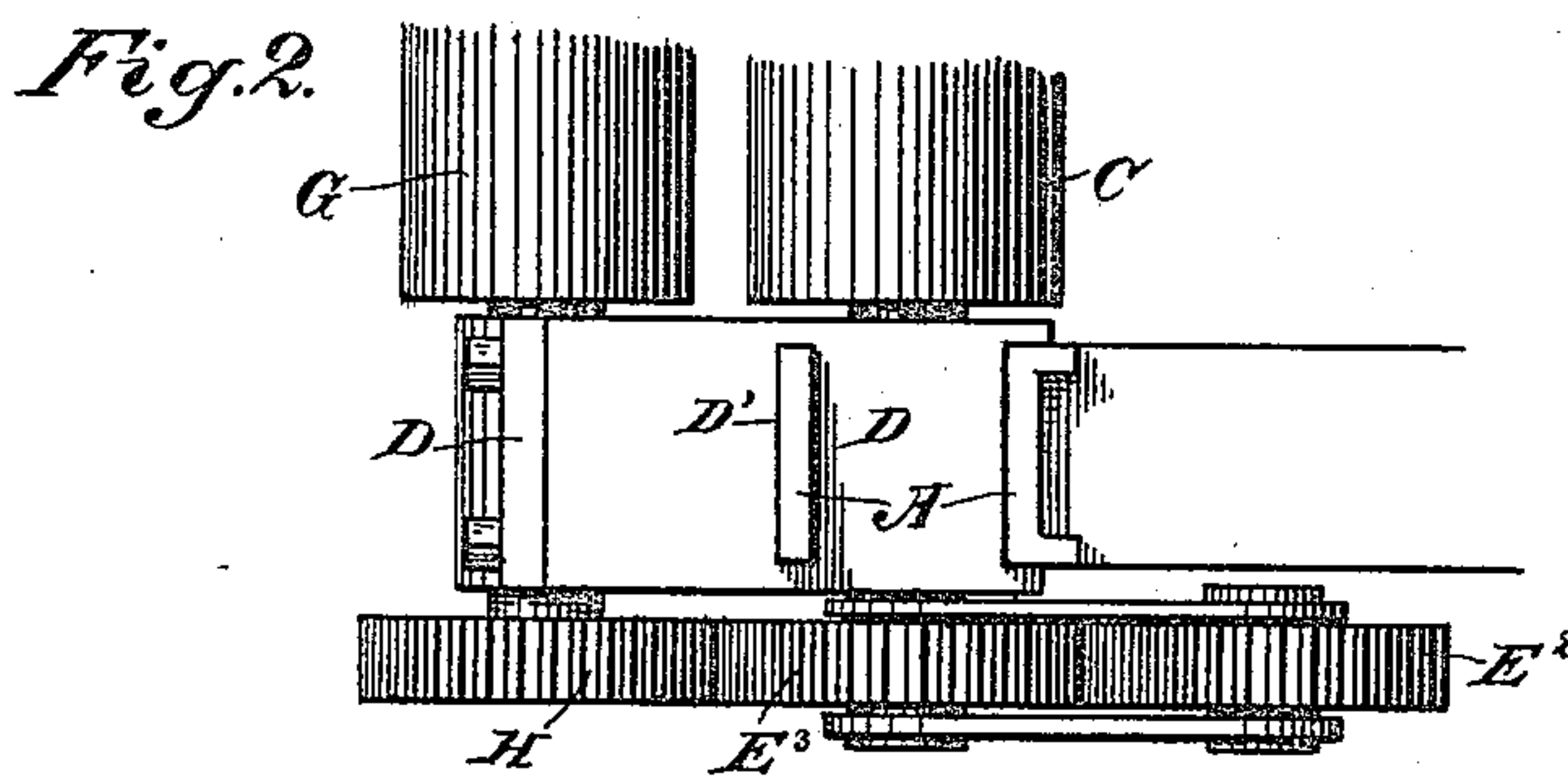
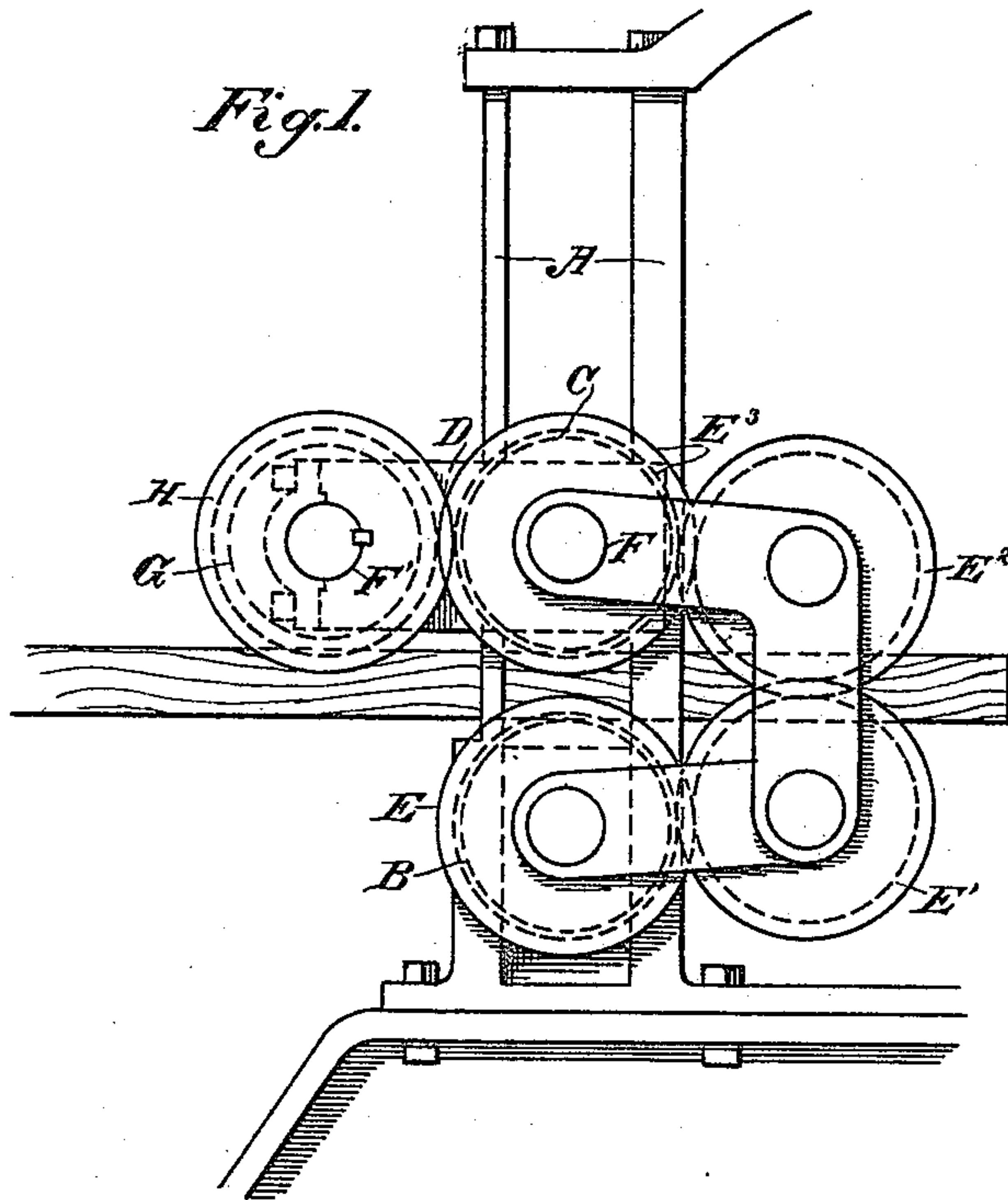


(No Model.)

J. KORBEL.  
GUARD FOR GANG EDGERS.

No. 440,829.

Patented Nov. 18, 1890.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

JOSEPH KORBEL, OF SAN FRANCISCO, CALIFORNIA.

## GUARD FOR GANG-EDGERS.

SPECIFICATION forming part of Letters Patent No. 440,829, dated November 18, 1890.

Application filed August 1, 1890. Serial No. 360,706. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH KORBEL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Guards for Gang-Edgers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a guard for the prevention of injury to workmen upon machines known as "gang-edgers."

It consists of a supplemental roller journaled in front of the upper feeding-roller and rotating in an opposite direction, as will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of one end of the gang-edger. Fig. 2 is a plan view. Fig. 3 is a perspective view of the double box and guide.

In the operation of gang-edgers the lumber to be worked is fed to the saws between two rollers, which carry it forward, and by reason of the exposed position of these rollers the workmen frequently have their hands and arms drawn in by the rollers and badly mutilated.

My invention is designed to provide a guard which will prevent the hand from being drawn into the machinery.

A is one of the vertical posts at one end of the gang-edger.

B is the lower feed-roller, and C is the upper one, which is journaled in a box D. This box is adapted to slide up and down upon guides on the post A, and the gear-wheels E, E', E<sup>2</sup>, and E<sup>3</sup> are retained in mesh, so that when the roller C is raised to admit thick lumber or lowered for that which is thinner this roller will always be driven in conjunction with the lower roller B, the two rotating toward each other, so that lumber which is entered between the two will be carried forward by their rotation.

In my invention I extend the box D outwardly toward the front and form two journal-boxes F and F' in it. The first one F receives the end of the shaft of the roller C and the outer one F' receives the shaft of a supplemental roller G, which is of slightly smaller

diameter than the rollers B and C. The opposite ends of these rollers will be supported in corresponding journal-boxes.

It is a gear which engages with the gear E<sup>3</sup> of the upper feed-roller, and it will be manifest from the fact that the shafts of both these rollers are journaled in the same box that these gears will always remain in mesh whatever may be the relative height of the roller C above the roller B. It will be seen also that by reason of the roller C and its gear turning in a direction toward the roller B the action of this gear upon the gear H will be to turn the roller G outwardly; but as this roller is of smaller diameter than the roller C it will not be in contact with the lumber which is being carried forward by the rollers B and C, and will therefore in no way influence the feed. It is, however, so near to the surface of the lumber that if by accident the workmen's hands approach too near the outward rotation of this roller G will prevent the hand from being carried into the machinery. The boxes D have slots D' made vertically through them between the openings F and F', and these slots fit over the front portions of the posts A, so as to slide up and down upon them, the posts forming guides for the boxes in their movements.

It will be manifest that in different forms of machines the details of the boxes and guides will be somewhat varied; but the supplemental guard moving with the upper feed roller will be retained.

The roller is made of wood, iron, or other material, and may be covered with a soft protecting substance.

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

1. A guard for gang-edgers, consisting of the outwardly-rotating roller journaled in front of the upper feed-roller and movable vertically therewith, substantially as herein described.

2. In a gang-edger, the vertically separable feed-rollers, boxes within which the ends of the upper feed-roller shaft are journaled, vertical posts or guides upon which said boxes are movable, an extension of said boxes to



the front of the posts, journal-boxes formed within said extensions, a second roller of smaller diameter journaled in these boxes and in front of the feed-roller, and a gear  
5 fixed to the shaft of said second roller and meshing with the gear upon the shaft of the upper feed-roller, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOSEPH KORBEL.

Witnesses:

S. H. NOURSE,  
H. C. LEE.