

(No Model.)

R. M. GLEASON.  
SECTIONAL FEED ROLL.

No. 501,004.

Patented July 4, 1893.

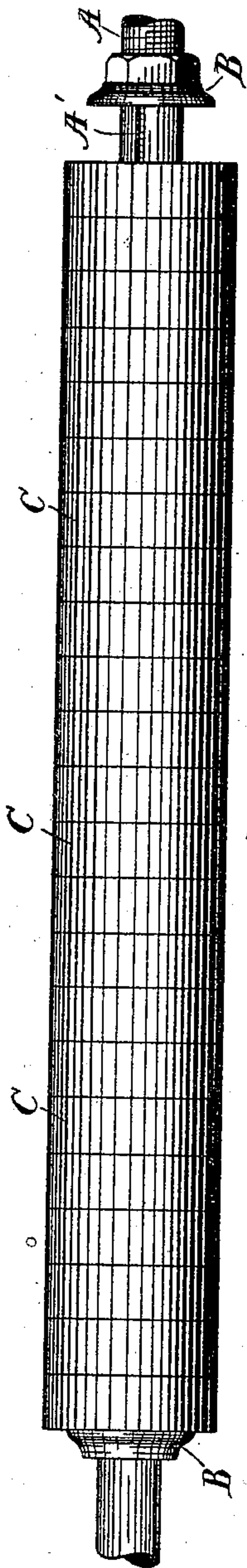


Fig. 1.

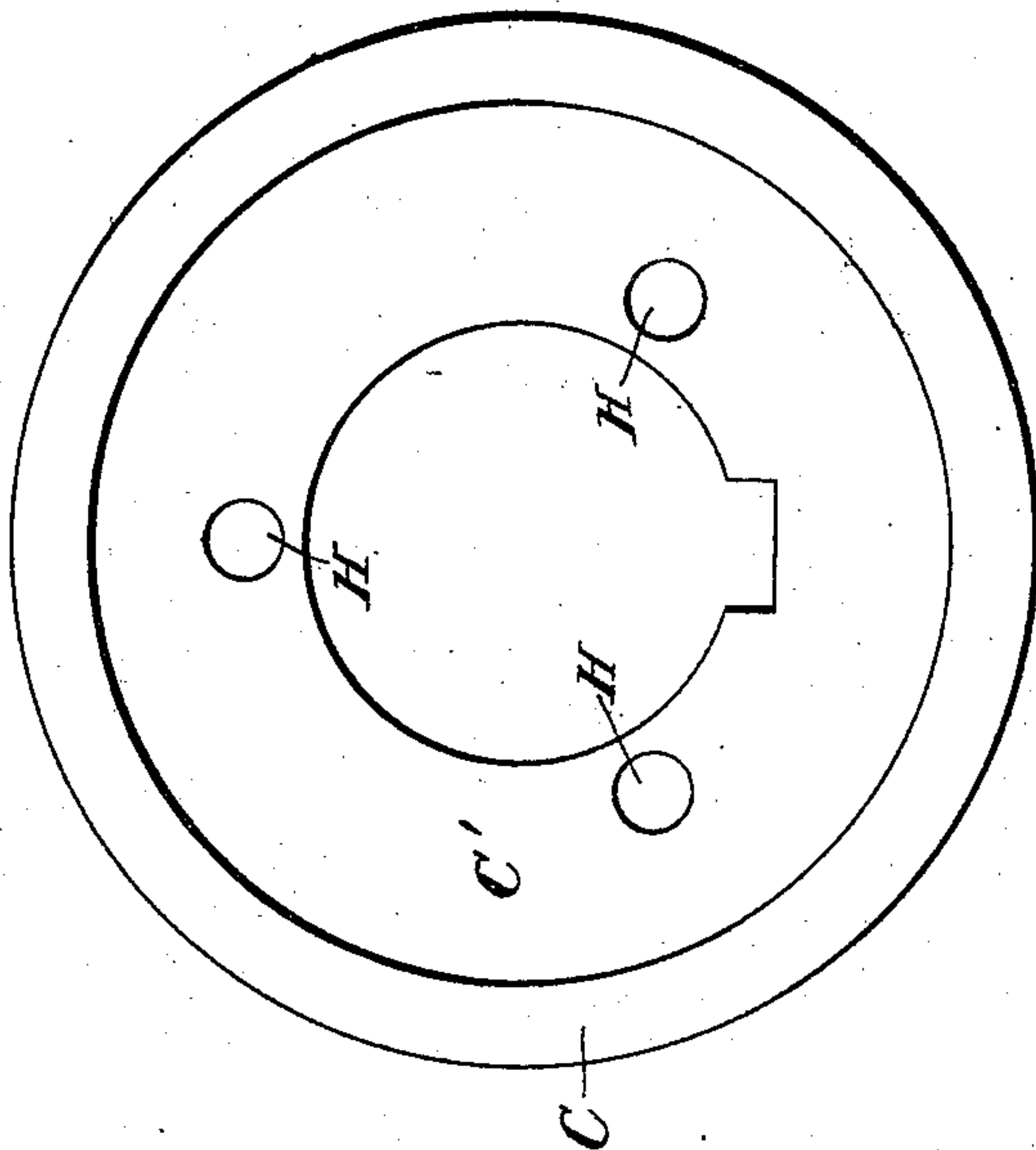


Fig. 3.

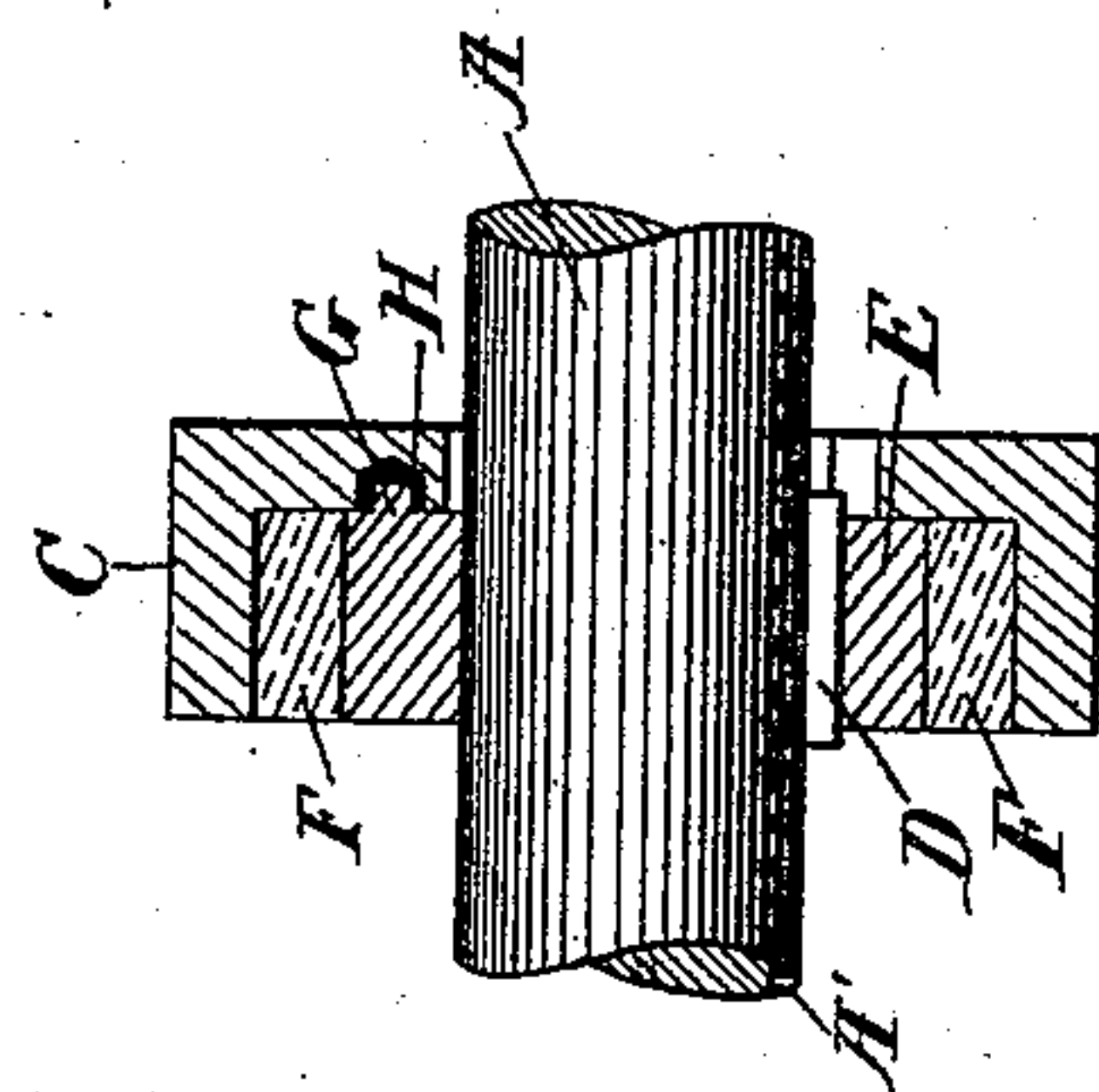


Fig. 3.

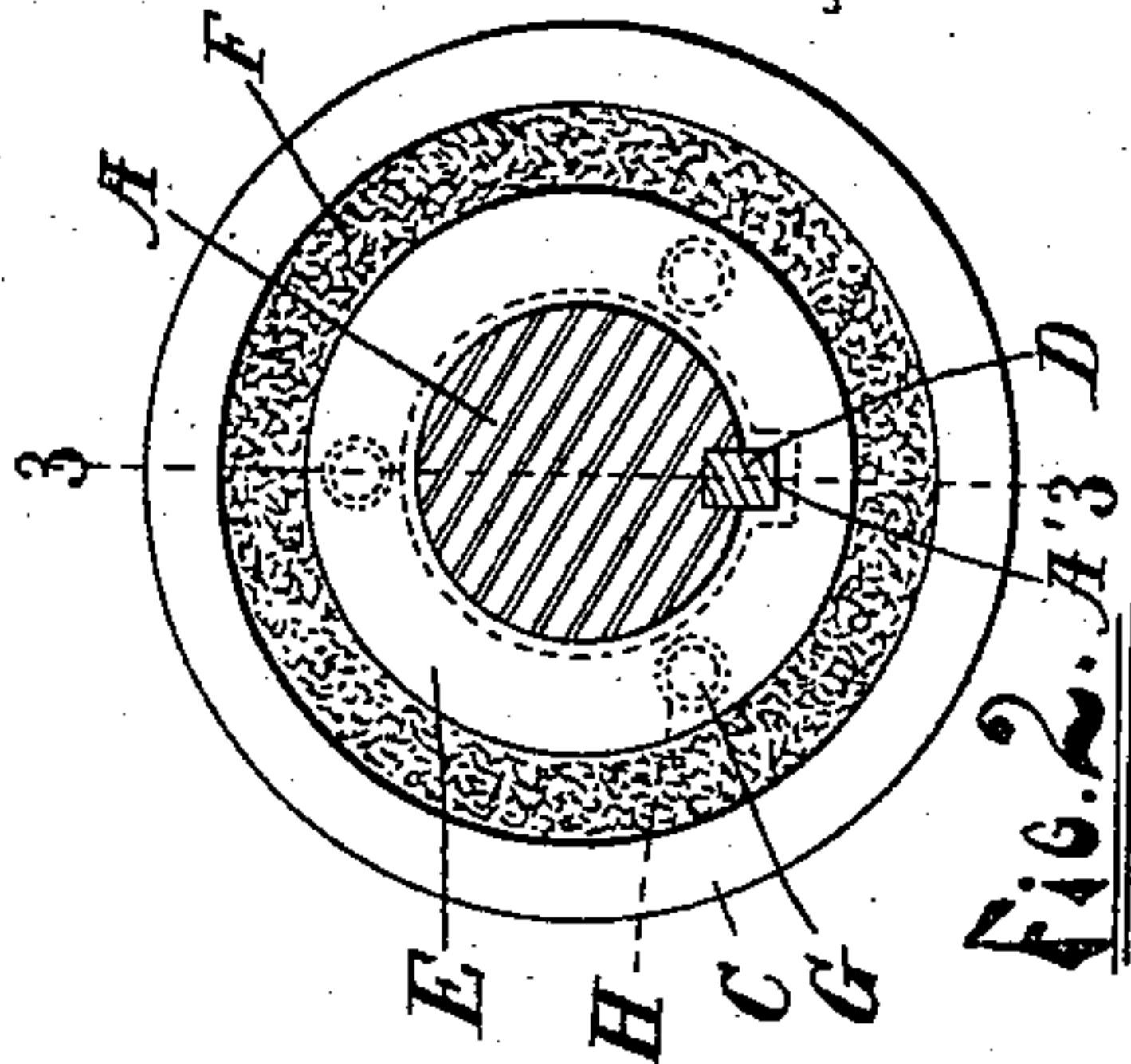


Fig. 2.

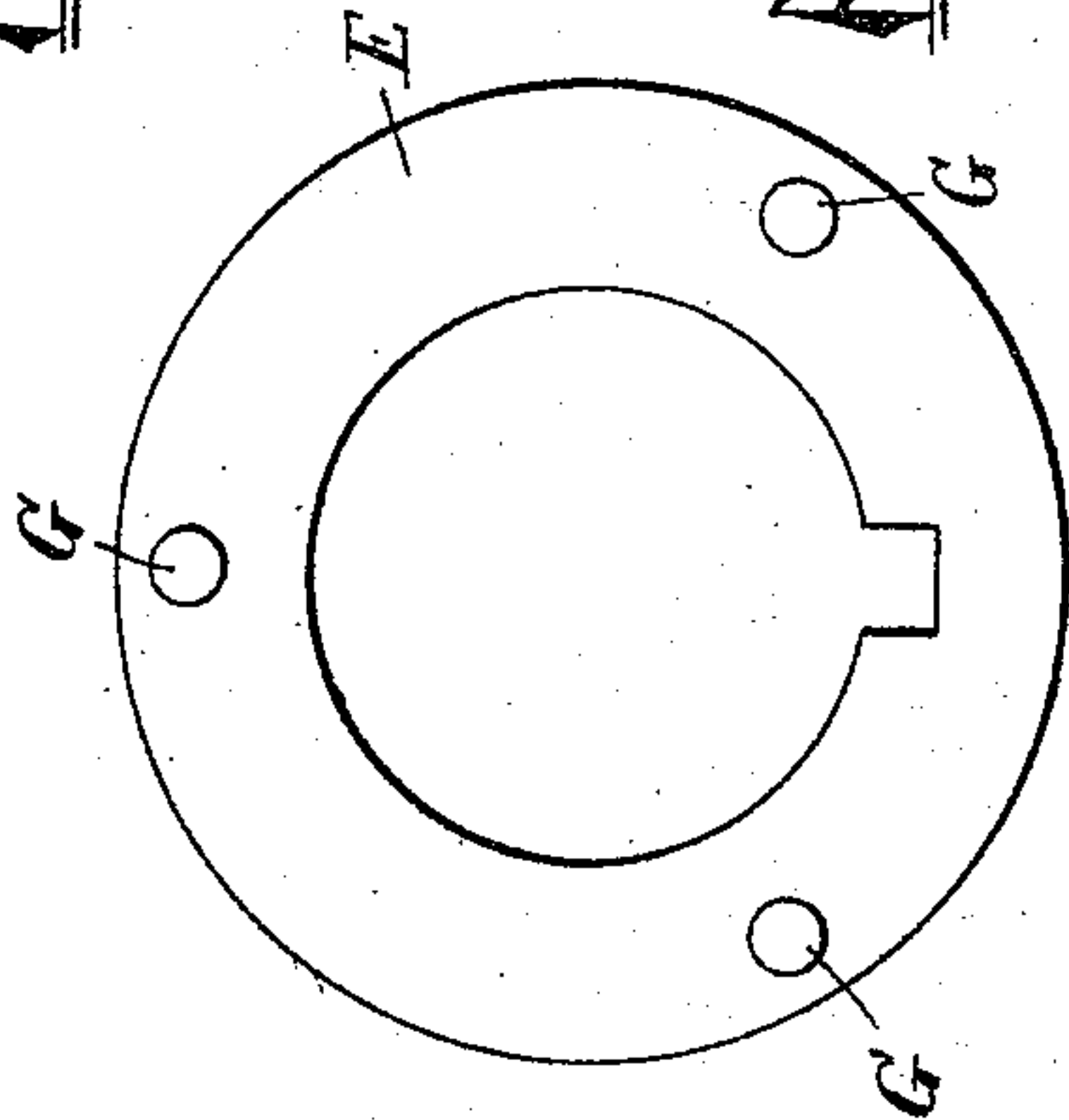


Fig. 4.

WITNESSES:

*Lewis E. Flanders*  
*Lois Moulton*

INVENTOR

Robert M. Gleason

BY

*Luther V. Moulton*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

ROBERT M. GLEASON, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR OF ONE-HALF TO ALFRED H. WATERSON, OF SAME PLACE.

## SECTIONAL FEED-ROLL.

**SPECIFICATION** forming part of Letters Patent No. 501,004, dated July 4, 1893.

Application filed May 1, 1893. Serial No. 472,633. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT M. GLEASON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Sectional Feed-Rolls; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in sectional feed rolls for wood-working machines, and its object is to provide the same with certain new and useful features, herein-after more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2 an end view of one of the sections of the roll; Fig. 3 a vertical section of the same on the line 3—3 of Fig. 2; Fig. 4 a detail of the collar; and, Fig. 5 a detail of the roll section.

Like letters refer to like parts in all of the figures.

A represents a suitable shaft, having the key-seat A', and two collars B, B, one of which is longitudinally adjustable on the shaft by means of a screw thread, or otherwise as convenient. The roll proper is between said collars and consists of a series of short sections C, each of which is chambered out at one side, leaving the head C' at one end through the center of which is an opening considerably larger than the shaft and key, to permit of lateral movement of said section in all directions about the axis of the shaft.

Within each section C is a collar E considerably smaller in its diameter, than the diameter of the inclosing chamber in the section C, and provided with a number of driving pins G, at one side, which project into openings, or recesses H, in the heads C'. Said openings are also considerably larger

than the pins, whereby the section of the roll is connected to, and driven by the collar and at the same time laterally movable about the axis of the same. A key D is inserted in the key seat A', and engaging a suitable seat in the collar, secures said collar to the shaft. The space in the chamber of each roll surrounding the collar is filled with soft rubber, or other suitable elastic material, whereby each roll section is normally held with its axis coincident with the axis of the shaft, but when lateral pressure is applied, each section of the roll will independently yield laterally, thus each section rests upon the stock independent of the other, and stuff of variable thickness can be run through the machine at the same time, or a board of different thickness at various portions of its width, will be pressed upon the bed across its entire width by said roll.

What I claim is—

1. In a feed roll in combination with a shaft, a series of collars keyed to the same, a series of hollow roll sections inclosing said collars, and having heads between said collars, enlarged openings in said heads, pins in said collars engaging said openings, and a filling of elastic material between said collars and roll sections, substantially as described.

2. In a feed roll, a shaft having a key seat, a fixed collar, and an adjustable collar, a series of collars having keys engaging said key seat, a series of chambered roll sections, inclosing said collars, a filling of elastic material between said collars and the rims of said sections, enlarged openings in the heads of said sections, and pins in the sides of said collars, engaging said openings, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT M. GLEASON.

Witnesses:

LUTHER V. MOULTON,  
LOIS MOULTON.