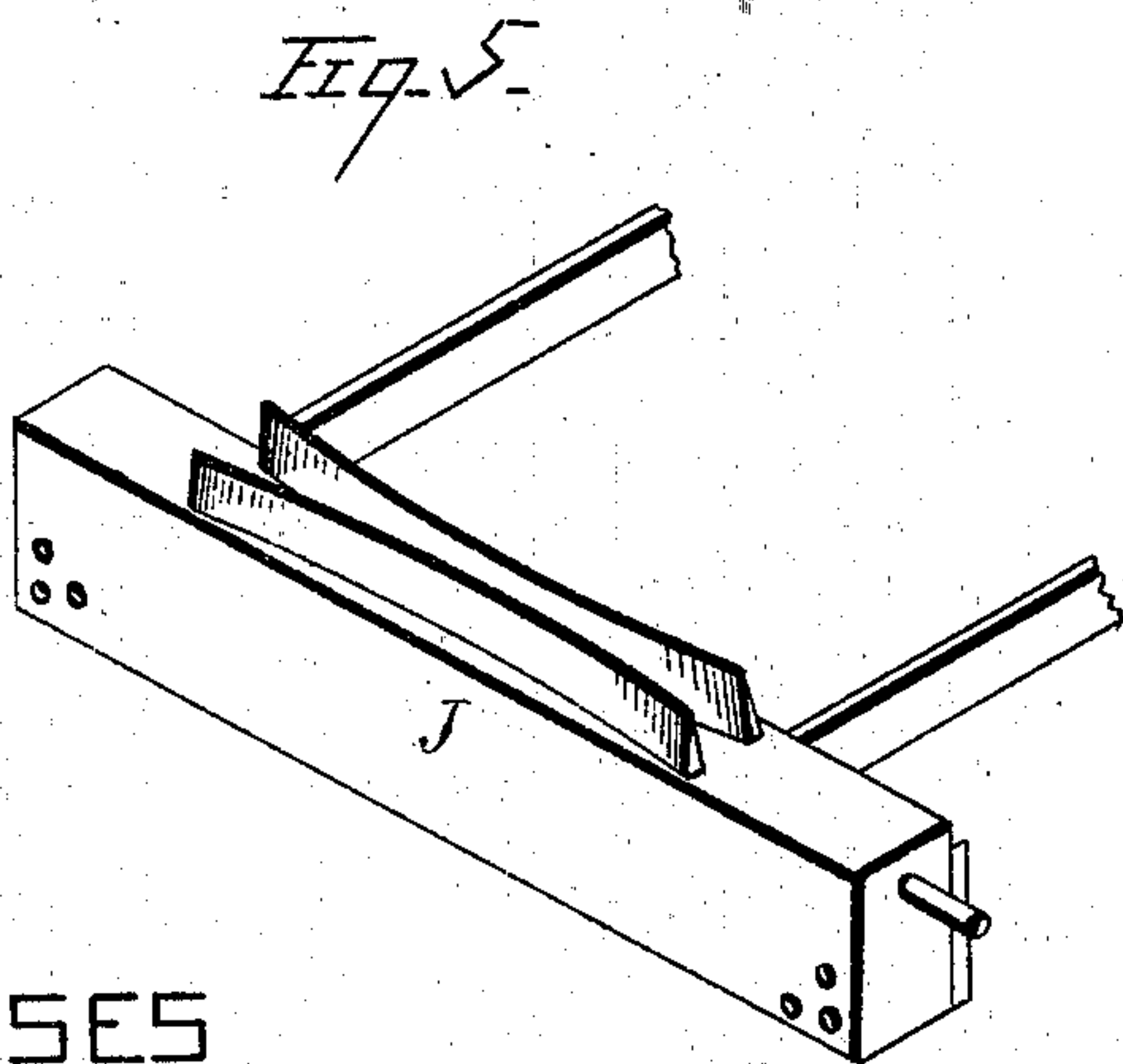
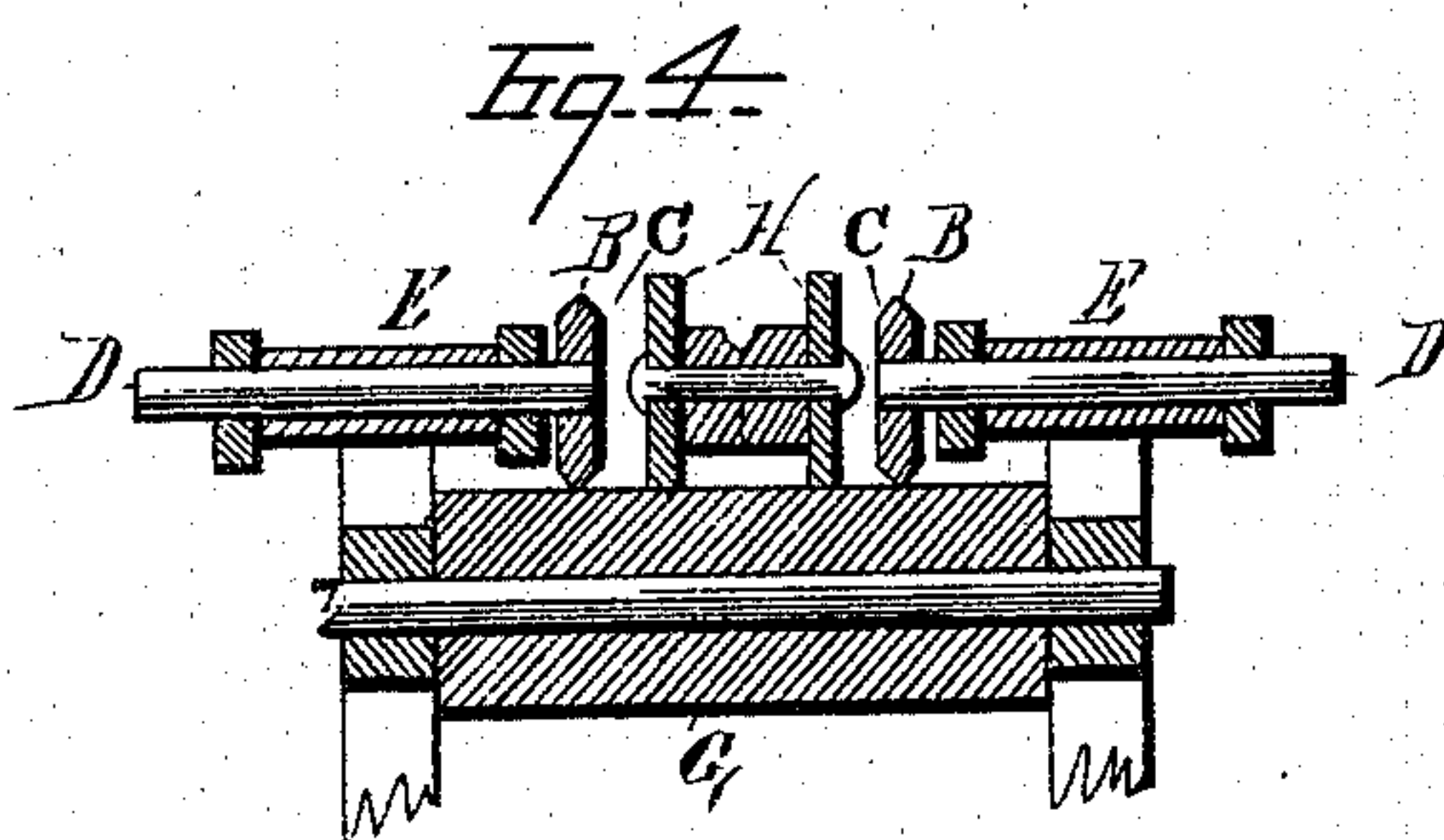
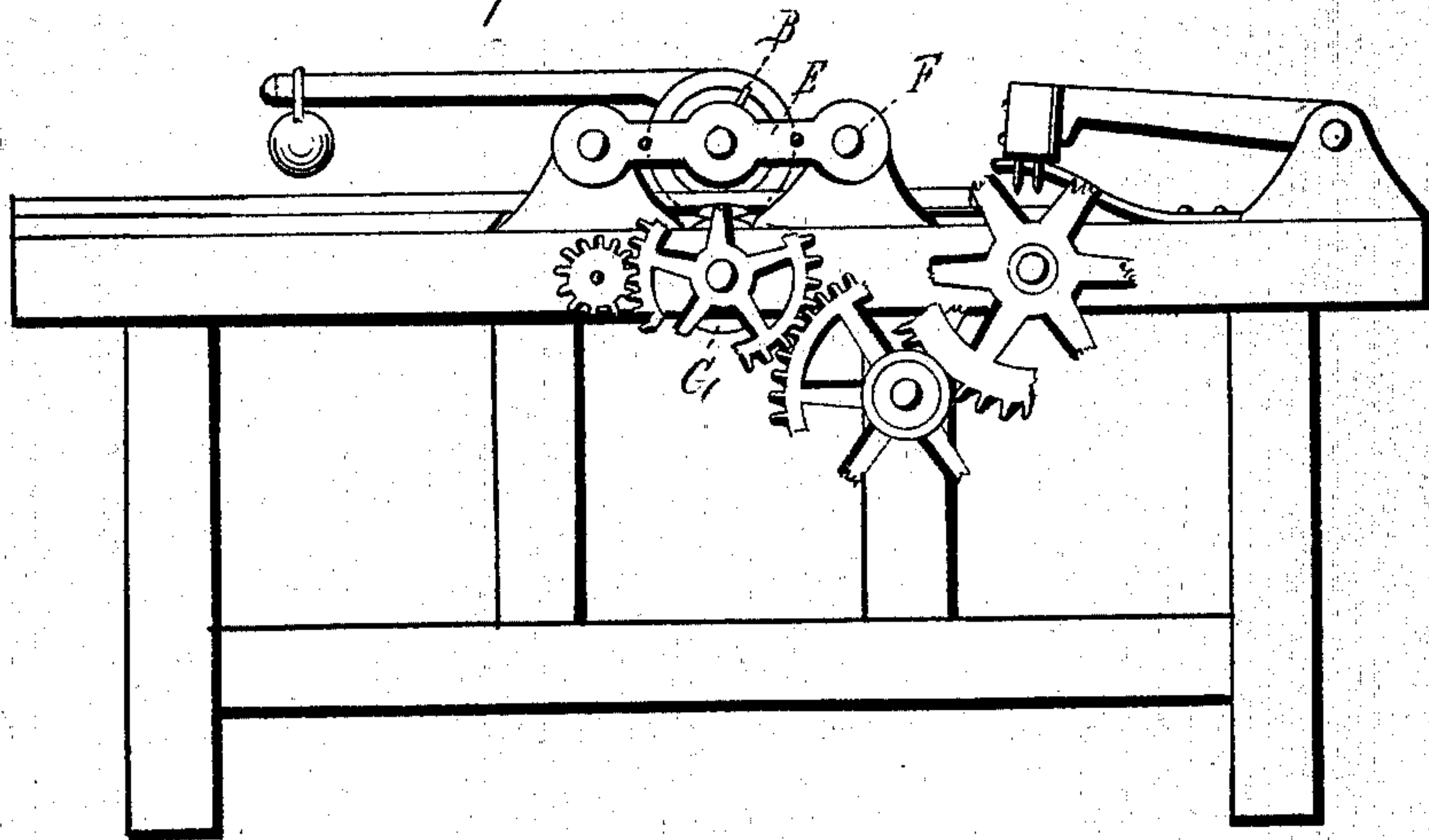






**C. RUGGLES.**  
**Machinery for Making Barrels.**  
 No. 144,635. *Fig. 3.* Patented Nov. 18, 1873.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES RUGGLES, OF HURON, OHIO.

## IMPROVEMENT IN MACHINERY FOR MAKING BARRELS.

Specification forming part of Letters Patent No. 144,635, dated November 18, 1873; application filed June 3, 1873.

*To all whom it may concern:*

Be it known that I, CHARLES RUGGLES, of Huron, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Machinery for Making Barrels; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My improvement relates to machinery for making the barrels known as the continuous-stave barrels. The first part of my invention relates to an improved mechanism for preparing the slab or veneer, whereby, in one operation, the edges which are to form the ends of the barrels are chamfered or chimed, and a croze is formed at each end to receive the barrel-heads, and at the same time another portion of the mechanism is dividing the slab or veneer into suitable lengths for barrels, dressing the ends thereof so as to form a proper joint when brought together.

In the drawings, Figure 1 is a view in elevation of my improved mechanism for preparing the slab. Fig. 2 is a plan view of the same. Fig. 3 is a view in elevation of the side opposite to Fig. 1. Fig. 4 is a sectional view through the axes of the revolving cutters. Fig. 5 is a view of the severing-knives as they are arranged on the swinging frame.

The following is a description of my invention: Upon a suitable frame-work is erected a platform or guide, A, which receives the slab or veneer, and directs it along beneath the revolving cutters B. These cutters are arranged on the peripheries of wheel C, which revolve at great velocity on their shafts D. These shafts are swung between bearings E, which have a motion along, and may be adjusted at any required position on, the slide-bars F. The cutters B are of such a shape as to cut the croze and chamfer the ends or chimes at the same time. The slab or veneer is carried along by the action of the geared roller G situated beneath the slab, and friction is provided, as required, by means of the friction-

rollers H, adjusted by means of weighted levers I.

After the crozing and chamfering are completed, the slab passes beneath the swinging bar J, which is operated by a cam, K, and allowed to drop at regulated intervals. This bar J is provided with two knives on its under side, so arranged as to cut from the veneer or slab a small strip, in shape double concave. This leaves the ends of each of the strips or pieces cut from the continuous veneer so dressed that when brought together in a barrel they will form a proper joint.

The continuous staves having been thus cut by the swinging cutter-bar J from the continuous veneer, it is in proper shape to enter a goring-machine.

By a suitable arrangement of the cam K, which is geared indirectly to the feed-roller G, the cutter-bar J may be raised so as to permit a greater or less length of slab to pass beneath it, so as to suit barrels of different circumferences.

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

1. In combination with the cutter-wheels C, the pulley-shafts D, adjustable bearings E, and slide-bars F, substantially as set forth and shown.

2. The combination of geared feed-roller G, the friction-rollers H, and weighted levers I, substantially as and for the purposes set forth and shown.

3. The combination of feeding-roller G, cam K, and cutter-bar J, substantially as shown and described.

4. The combination, in a single machine, of the chamfering, crozing, feeding, and dividing devices, substantially as set forth and described.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of May, 1873.

CHARLES RUGGLES.

Witnesses:

J. L. BROOKS,  
E. EVERITT.