

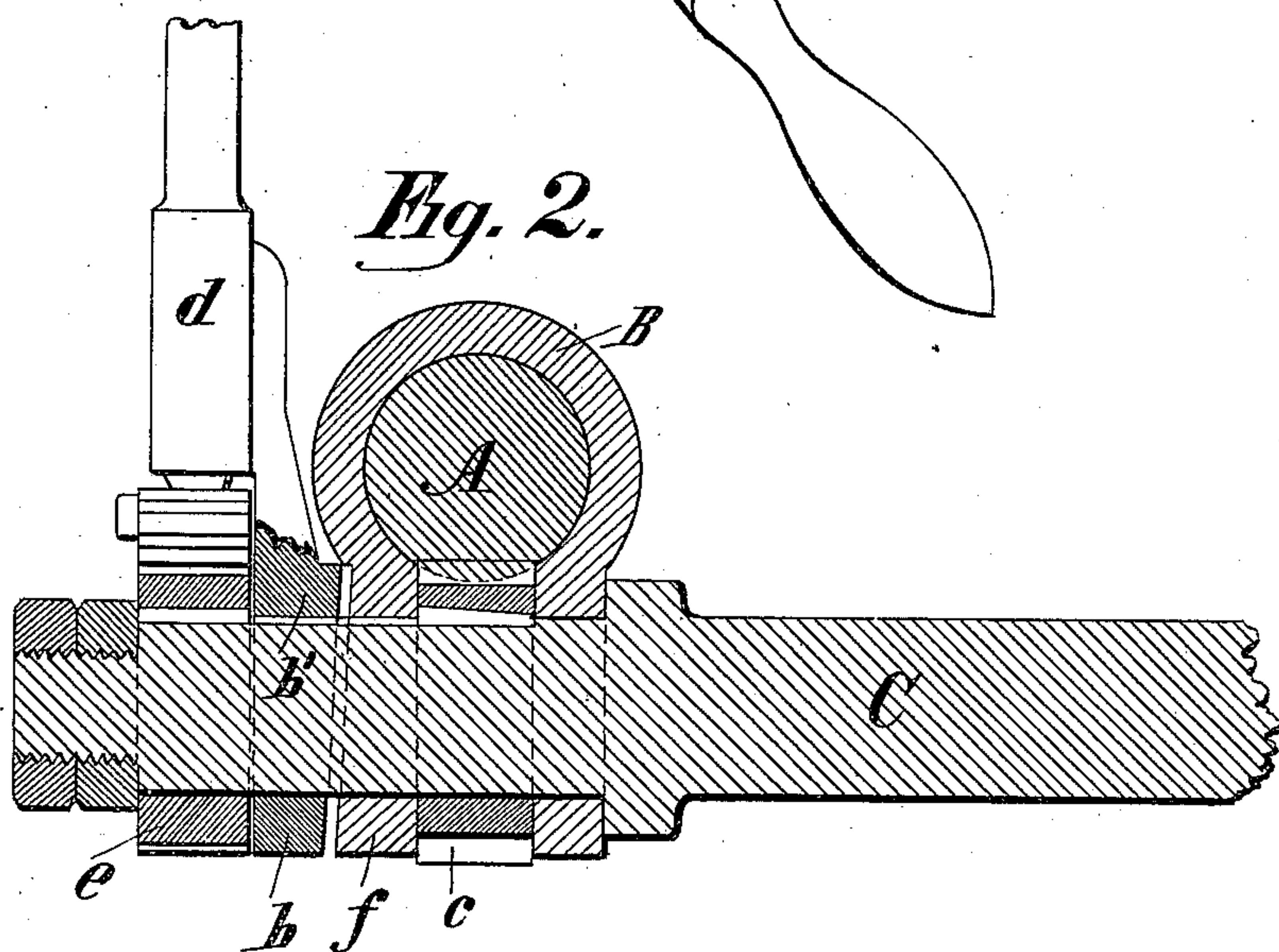
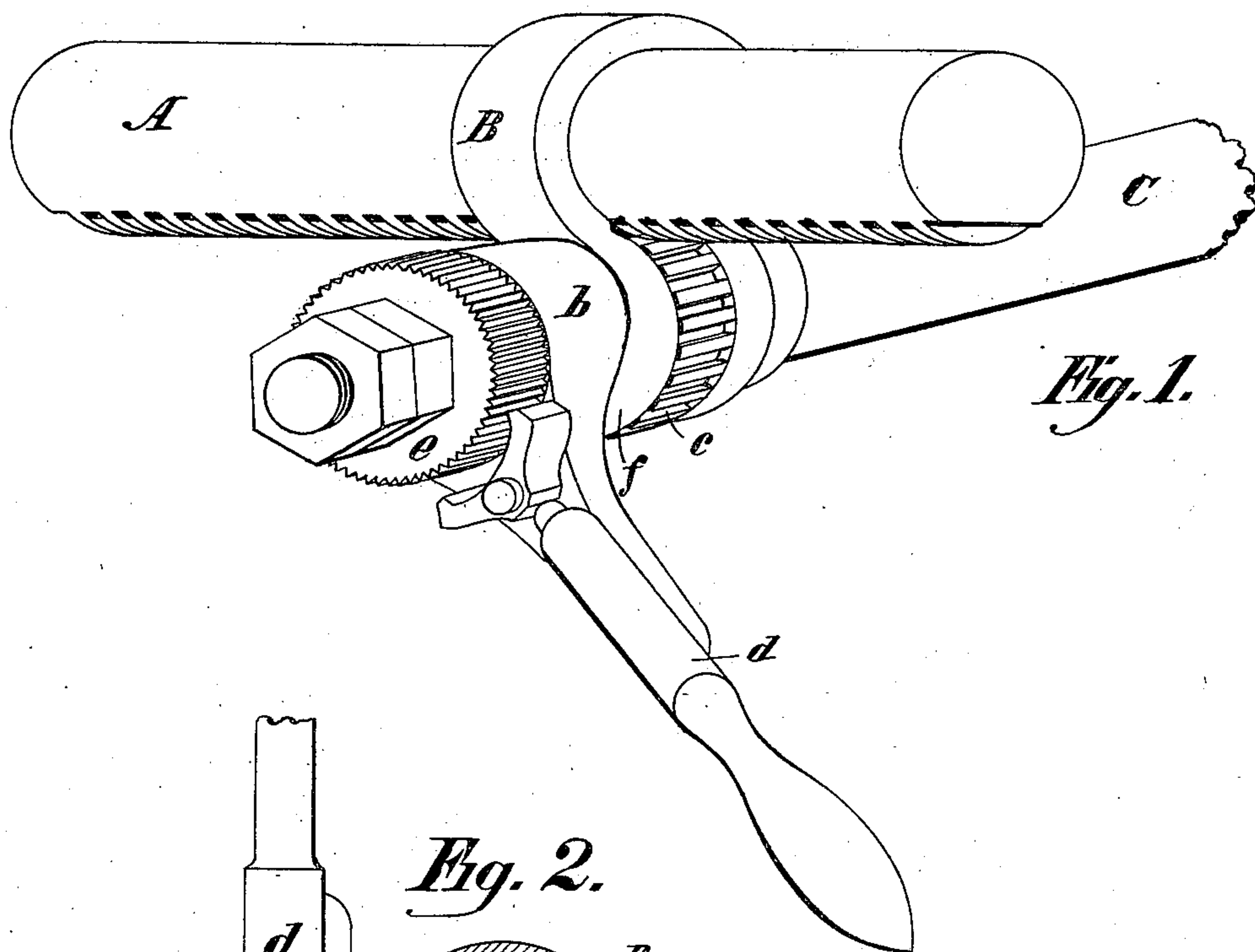
(No Model.)

P. P. LANE & J. B. STANWOOD.

LOCKING DEVICE FOR RATCHETS.

No. 299,654.

Patented June 3, 1884.



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# UNITED STATES PATENT OFFICE.

PHILANDER P. LANE AND JAMES B. STANWOOD, OF CINCINNATI, OHIO,  
ASSIGNORS TO THE LANE & BODLEY COMPANY, OF SAME PLACE.

## LOCKING DEVICE FOR RATCHETS.

SPECIFICATION forming part of Letters Patent No. 299,654, dated June 3, 1884.

Application filed April 11, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, PHILANDER P. LANE and JAMES B. STANWOOD, citizens of the United States, residing at Cincinnati, Ohio, have invented new and useful Improvements in Locking Devices for Ratchets, of which the following is a specification.

Our invention relates to "gang-edgers" and similar machines, being an improvement in the means for locking and retaining the guide-moving shafts in position; and it consists in an improved construction and arrangement of the ratchet mechanism, whereby the same is constituted a locking device operating automatically, as hereinafter more fully described.

Mechanism embodying our invention is illustrated in the accompanying drawings, in which Figure 1 is a perspective view of one of the ratchet-connections of a gang-edger, showing so much of the rack-bar and guide-moving shaft as is necessary to illustrate our invention; and Fig. 2 is a cross-section taken through the axis of the ratchet-wheel and of the guide-moving shaft.

Referring to the drawings, in which the parts hereinafter described are designated by the letters of reference, A is the cross-bar, forming a guide for the hangers B and a rack for the propulsion of the guide-moving shaft C. In ordinary gang-edgers, the bar A is secured across the frame at one end of the machine, and is provided at its under side with a line of cog-teeth, with which a pinion, *c*, secured upon the shaft C, engages. The shaft C is provided at its remote end with a similar pinion traveling in a corresponding rack, and at some intermediate point carries a guide for the saw, which, by the travel of the shaft C, is moved laterally upon its mandrel. The hangers B are also provided with pointers traveling upon or against a graduated-scale bar, by which the position of the saws can be accurately adjusted. These features we have not shown in the drawings, since they are common to gang-edgers and form no part of our present invention.

The hanger in the present case is of the usual construction, being a collar embracing the bar A, and terminating below in two loops, carrying the shaft C, with the pinion *c* secured to the shaft C between the loops, and

engaging the cogs upon the under side of the bar A. A permanent collar or shoulder, *a*, upon the shaft C, beyond the loops, prevents lateral displacement of the shaft. Upon the projecting end of the shaft C, adjacent to the hanger, is arranged a collar, *b*, terminating in a handle, *d*, and adjacent to this a ratchet-wheel, *e*, secured fast to the shaft C, and operated by a dog secured upon the handle *d*, the whole forming the ordinary ratchet device for moving the shaft C across the machine by its rotation. In order to constitute a lock, the loop adjacent to the ratchet-collar is thickened at its lower portion, as at *f*, and the ratchet-collar *b* is correspondingly thickened at its upper portion, as at *b'*, by which means, when the handle *d* is allowed to drop by its own gravity, the collar *b* is wedged in between the thickened portion of the loop *f* and the ratchet-wheel *e*. The locked position of the parts is represented in Fig. 1, in which the friction of the wedge-collar *b* prevents rotation of the shaft C. When the handle *d* is elevated to the position shown in Fig. 2, there is sufficient space between the loop *f* and the ratchet-wheel *e* to permit the ordinary operations of the ratchet. By this construction of the parts, it will be seen that the ratchet can only be used when the handle *d* is elevated to the vertical position shown in Fig. 2, and that on being released the handle will fall by gravity to the position shown in Fig. 1, thus automatically locking itself. The same construction may be employed in other ratchet devices, such as saw-mill head-blocks, where a lock would be desirable.

Having described our invention, we claim and desire to secure by Letters Patent—

In ratchet devices of the character described, a rotating collar having its bearing-surfaces and its abutment inclined to the plane of its rotation, substantially as set forth.

In testimony whereof we have hereunto set our hands and seals in the presence of two subscribing witnesses.

PHILANDER P. LANE. [L. S.]  
JAMES B. STANWOOD. [L. S.]

Witnesses:

L. M. HOSEA,  
C. SHAPPELL.