(No Model.)

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

PRESSER ROLL FOR GANG EDGERS.

No. 299,653. Patented June 3, 1884.

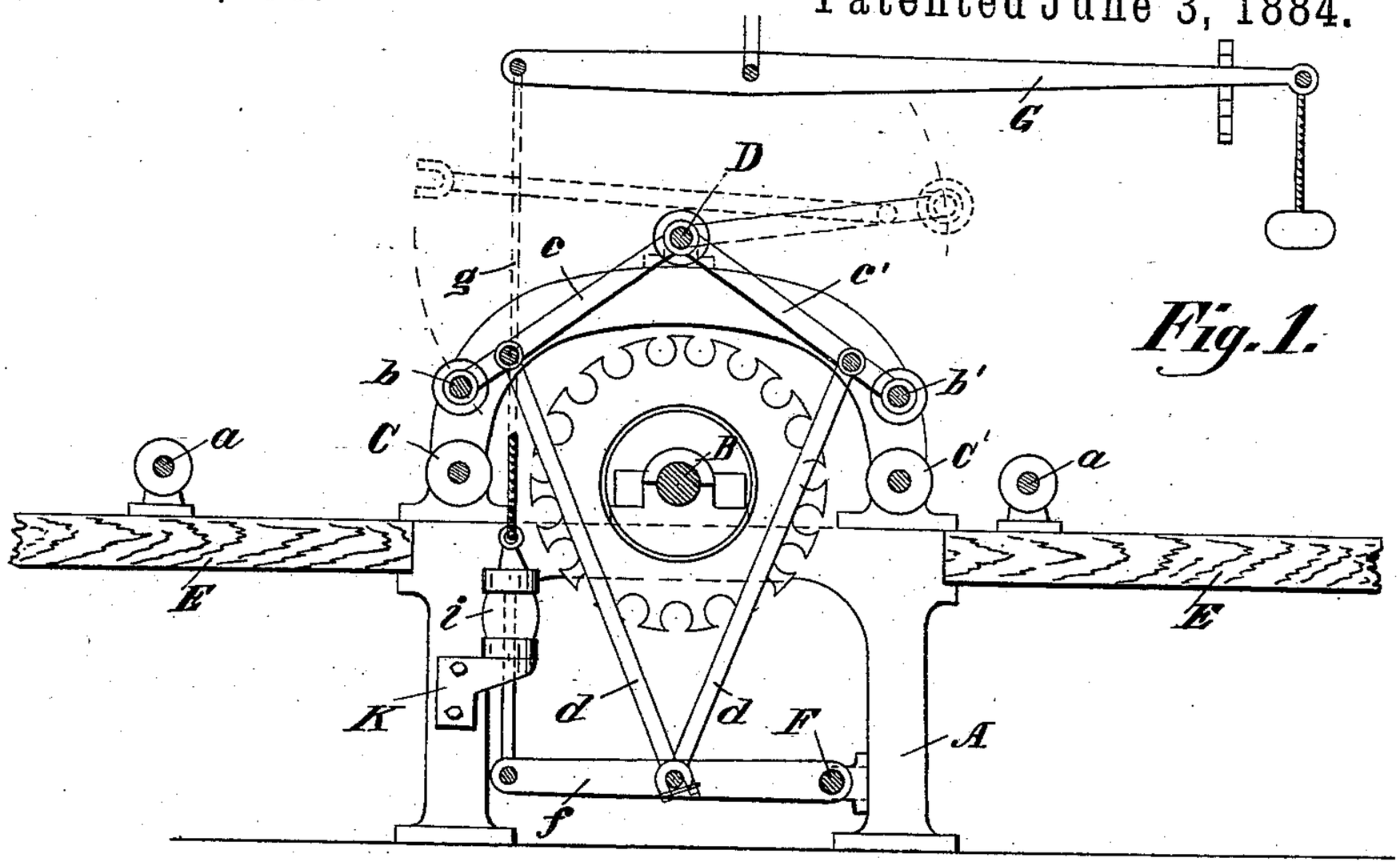


Fig. 1.

Fig. 2.

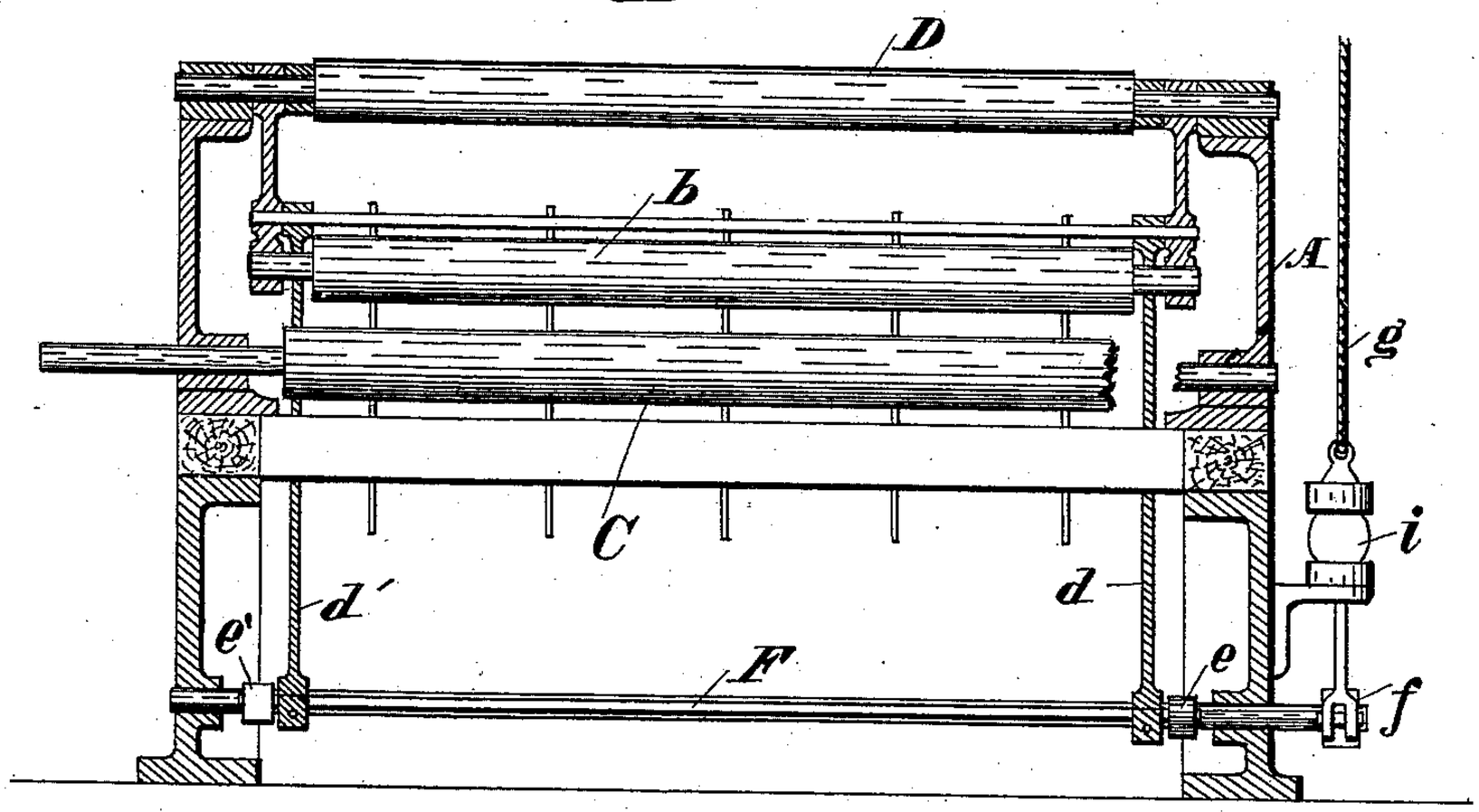
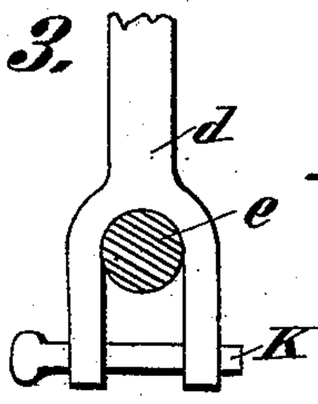


Fig. 3.



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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.

PRESSER-ROLL FOR GANG-EDGERS.

SPECIFICATION forming part of Letters Patent No. 299,653, 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 Gang-Edgers, of which the following is a specification.

Our invention relates to gang-edgers and similar machines requiring the employment of duplicate rolls for holding the material to its position while undergoing treatment; and it consists in the construction and arrangement of the mechanism for mounting and manipulating the rolls, as hereinafter more fully described, and is illustrated in the drawings, exhibiting mechanism in which the same is embodied.

In the drawings, Figure 1 is a longitudinal section of a gang-edger to which our improvements are applied. Fig. 2 is a cross-sectional view of the same, and Fig. 3 is a detached view of the link-connection.

A in the drawings designates the supporting-frame of the machine, carrying the saw-mandrel B, the permanent rolls C C′, and the return idler-roll D. These parts, being arranged relatively as shown, and being common to gang-edgers, require no further specific description.

E E designate the longitudinal extensions of the bed of the machine, and *a a* the idler-rolls, upon which the work is fed to the cutters. The bearing-down rolls *b b*, which are required to be self-adjustable in order to accommodate varying thicknesses of lumber, are ordinarily journaled in sliding boxes having a vertical play; but being in such case independent in their action, the rolls often fail to act properly, as in case the lumber is imperfectly squared at the end, so as not to lift the roll uniformly at both ends. Moreover, the presence of an irremovable roll, secured across the frame above the feed-roll C, prevents access to the saws for adjustment, sharpening, &c. Our improvement in this respect consists in journaling the adjustable rolls *b b′* in radial arms *c c′*, swinging pivotally upon extensions of the shaft D, and upheld by links *d d d′ d′* from a pivoted frame below, consisting of cranks *e e′*, secured rigidly upon a pivotal shaft, F, journaled below across the frame A. At one end of the shaft F is a third crank, *f*, having a rope or chain connection, *g*, with a hand-lever, G, pivoted by a suitable hanger to the ceiling-rafters above the machine, by which, in connection with a suitable rack-bar, *h*, the rolls *b b′* can be raised to any desired point of permanent adjustment and prevented from dropping into contact with the feed-rolls C C′ when the work passes beyond the bearing-rolls *b b′*; and, further, as a means of preventing undue shocks, which might displace the lever G from its rack-bar and cause the rolls *b b′* to drop, a spring or "tug-link," *i*, is interposed in the chain-connection, *g*, and held up on an abutment-bracket, *k*, secured upon the frame A, as shown. The rolls *b b′*, as will be readily understood, act by gravity in holding the work down upon the feed-rolls C C′, and the described connections and mode of mounting afford a means of convenient and instantaneous adjustment to any point desired with relation to the thickness of the stuff to be worked; but a limited range of automatic adjustment is desirable to accommodate any inequalities in the thickness of the lumber, and to enable the roll to thus adjust itself. The connections of the supporting-links *d d* with the cranks *e e′* are elongated loops, (shown more clearly in Fig. 3,) which permit the rolls *b b′* to rise to a limited distance without raising the cranks. By this means, and for this reason, the permanent adjustment of the rolls is made for a somewhat narrower space than is actually required, leaving the excess to be accommodated by the secondary automatic adjustment referred to.

The lower end of the loop-connection of the links *d d′* with the cranks *e e′* is secured by a removable pin, *k*, which, when removed, allows the roll to be thrown back into the position indicated in dotted lines, Fig. 1, which leaves the frame open above the feed-roll, thus affording free access to the cutters for sharpening or other purposes. This mode of connection may be, and is preferably, applied both to the front and to the rear rolls, though it may be applied only to the front. It will be obvious that the elongated slot and removable pin-connection may be applied to the upper

ends of the links *d* at their pivotal union with the arm *c*, instead of below, as shown; but the construction as first described is preferred.

We claim and desire to secure by Letters Patent—

1. In a gang-edger, the combination, with the bed-rolls, of upper feed-rolls mounted in swinging arms over the saws, links connected to and supporting said arms, a crank-shaft beneath the saws having cranks, to which said links are connected, and operative mechanism, substantially as described, whereby the links may be raised, as set forth.

2. The combination, with the bed of a gang-edger, of a bearing-roll journaled in swinging arms, link-supports for said arms, a crank-shaft having cranks, with which said links are connected by a loose adjustment, and operative mechanism for said crank-shaft, substantially as described.

3. The combination, with the bed of a gang-edger, of bearing-rolls mounted in swinging arms above said bed, links connected to said arms, a crank-shaft having cranks, to which said links are connected, an operating-crank for the crank-shaft, and a draw-rod and lever connected to said operating-crank, substantially as described.

4. The combination, with bearing-rolls journaled in swinging arms supported by links, of the crank-shaft and cranks to which said links are connected, the operating-crank, draw-rod and lever, and the spring placed between the draw-rod and lever to take up the shock, all 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,
LIDA C. HOSEA.