

J. B. JONES.

Improvement in Circular-Saw Mills.

No. 132,469.

Patented Oct. 22, 1872.

Fig. 1

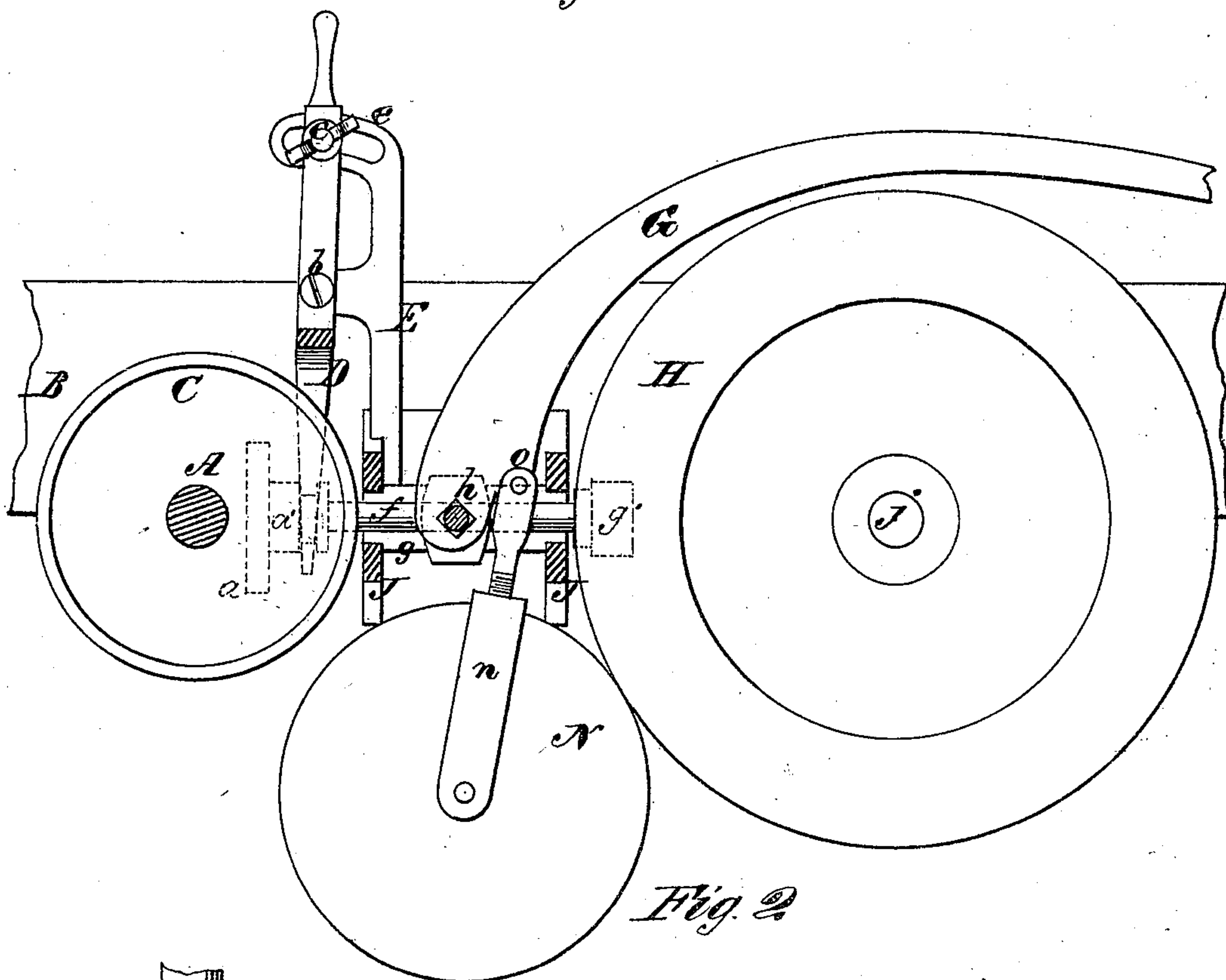
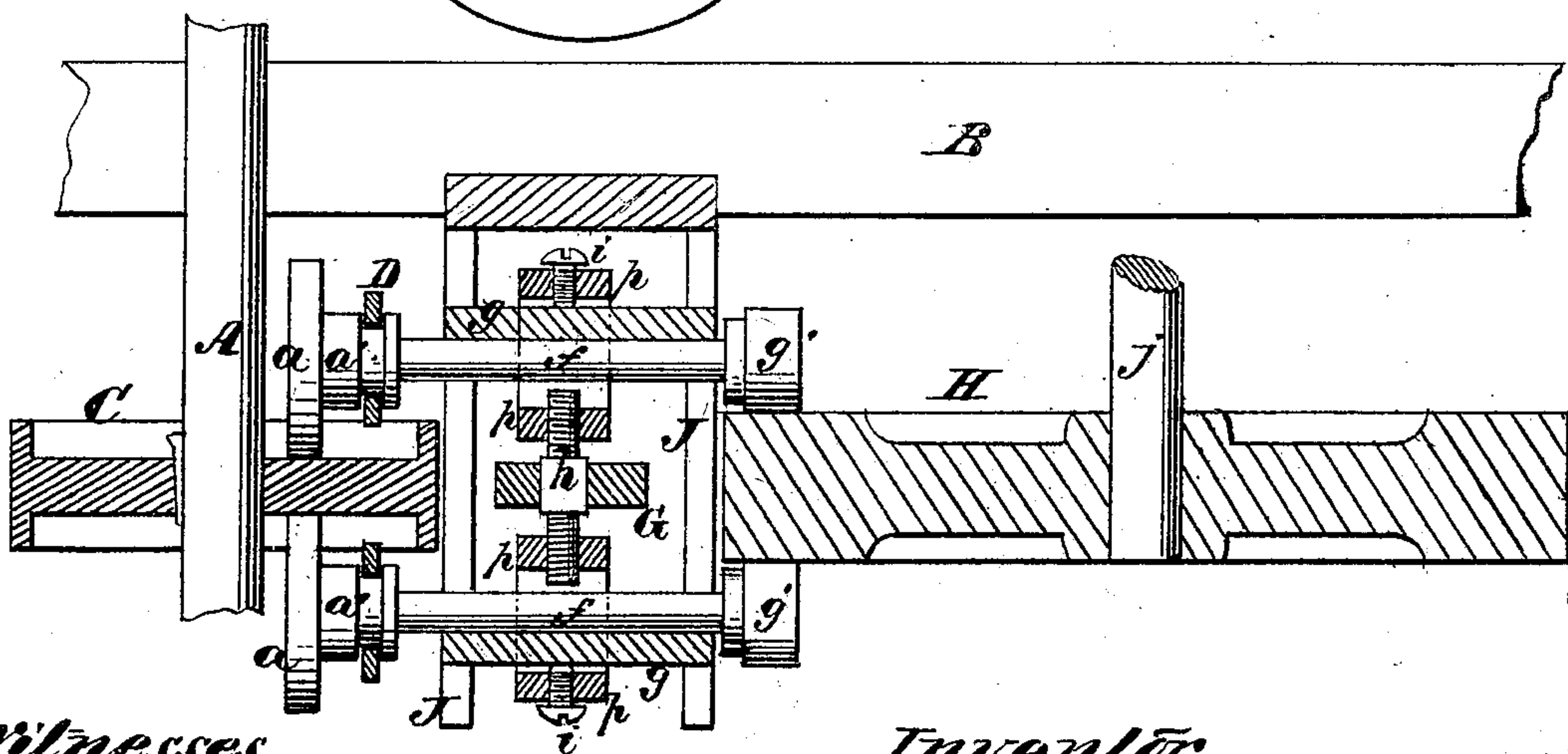


Fig. 2



Witnesses.

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by

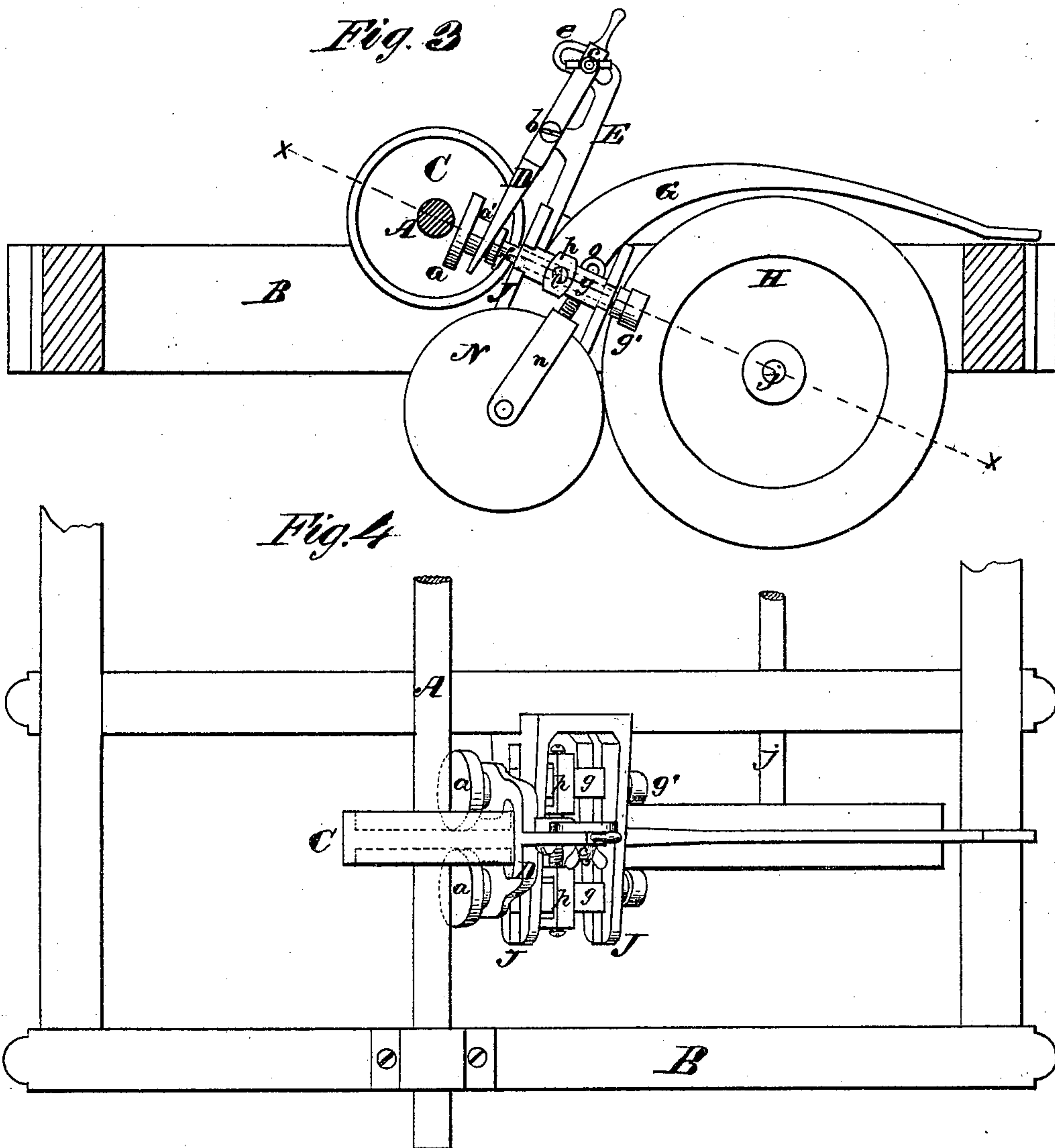
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J. H. Campbell.

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UNITED STATES PATENT OFFICE.

JOHN B. JONES, OF HOUSTON, TEXAS.

IMPROVEMENT IN CIRCULAR-SAW MILLS.

Specification forming part of Letters Patent No. 132,469, dated October 22, 1872.

To all whom it may concern:

Be it known that I, JOHN B. JONES, of Houston, in the county of Harris and State of Texas, have invented an Improvement in Circular-Saw Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a section taken vertically and longitudinally through the improved feed-motion; Fig. 2, Plate 1, is a section taken longitudinally through Fig. 3 in the plane indicated by dotted line *x x*; Fig. 3, Plate 2, is an end view of the feed-motion; and Fig. 4, Plate 2, is a top view.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved adjustable feed mechanism for varying the speed of circular saws, as will be hereinafter explained.

The following description of my improvements will enable others skilled in the art to understand them.

In the accompanying drawing, A represents the saw-shaft of a circular saw, which shaft has its bearings in journal-boxes upon a frame, B, and carries a wheel, C. This wheel C, with its shaft, receives rotary motion from a large speed-wheel, H, through the medium of large and small friction-rollers, hereinafter explained. J represents a bracket, which is composed of slotted arms, and which is secured to the frame B between the two wheels C and H. Through the slots of the bracket-arms J pass two long parallel bearings, *g g*, and through these bearings shafts *f f* pass. The axes of the shafts *f* are in a plane intersecting the axes of the shafts A and *j*, and on the ends of each shaft *f* friction-wheels *a g'* are keyed. The wheels *g' g'* are somewhat smaller than the wheels *a a*, and are intended to bear against the sides of the speed-wheel H and receive rotation therefrom. The wheels *a a* are intended to bear against the wheel C and transmit motion thereto. The wheels *a a* and *g' g'* and their shafts *f f* are longitudinally adjustable through their bearings *g g*, and these bearings are adjustable toward or from each other. The longitudinal adjustment

of the shafts *f f* is effected by means of a yoked lever D, which is pivoted at *b* to a standard, E, and secured fast, when desired, to this standard by means of a clamp-nut, *c*, the screw-bolt of which passes through a slotted arc, *e*, of the said standard E, as shown in Figs. 1 and 3. The forked ends of the yoked lever D embrace annularly-grooved hubs *a'* on wheels *a*. The lateral adjustment of the shafts *f f* is effected by means of a hand-lever, G, which curves over the speed-wheel H, and which is connected to boxes *p p* that are confined on the long bearings *g* by means of a right-and-left screw-shaft, *h*, the ends of which are tapped through the said boxes. A wheel, N, is arranged between the wheels C H, and suspended by a strap, *n*, from a point, *o*, on lever G.

When the lever G is depressed, as shown in the drawing, the rollers *g' g'* and *a a* will be forcibly brought in contact with the sides of their respective wheels, when motion will be transmitted from the speed-wheel to the wheel on the saw-shaft; then, by adjusting the lever D, the speed of the wheel A and saw-shaft can be increased or diminished, as may be desired, in consequence of the rollers assuming different positions with respect to the axes of their wheels. When the lever G is pressed upward the rollers will be released from their wheels, and the intermediate wheel N may be brought into play and the rotation of the saw-shaft reversed; or, when desirable, the motion of the saw-shaft may be made to cease altogether.

The two small screws, which are lettered *i*, (see Fig. 2,) are adjustable for the purpose of allowing the rollers *a g' a g'* to accommodate themselves to the lateral motions of the saw-shaft A.

It is obvious that this feed-motion may be applied to other devices than a saw, and, therefore, I do not confine its application to a saw.

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

1. The combination of rollers *a g'* on laterally and longitudinally adjustable shafts *f* with the saw-shaft wheel C and speed-wheel H, substantially as and for the purpose described.

2. The yoked lever D on standard E, provided with a clamp-nut, *c*, and combined with

the rollers *a g'* and C H, substantially as described.

3. The lever G and right-and-left screw *h*, in combination with the boxes *p*, bearings *g*, and laterally-adjustable roller-shafts *f*, and with the wheels C H, substantially as described.

4. The reversing-wheel N, suspended from the lever G, and combined with the wheels C H, substantially as described.

JOHN BENNETT JONES.

Witnesses:

W. P. McGOWEN,
CHARLES SCHMIDT.