2 Sheets--Sheet 1.

J. L. KILGORE.

Making Barrel-Heads.

No. 144,771. Patented Nov. 18, 1873.

Fig. 1.

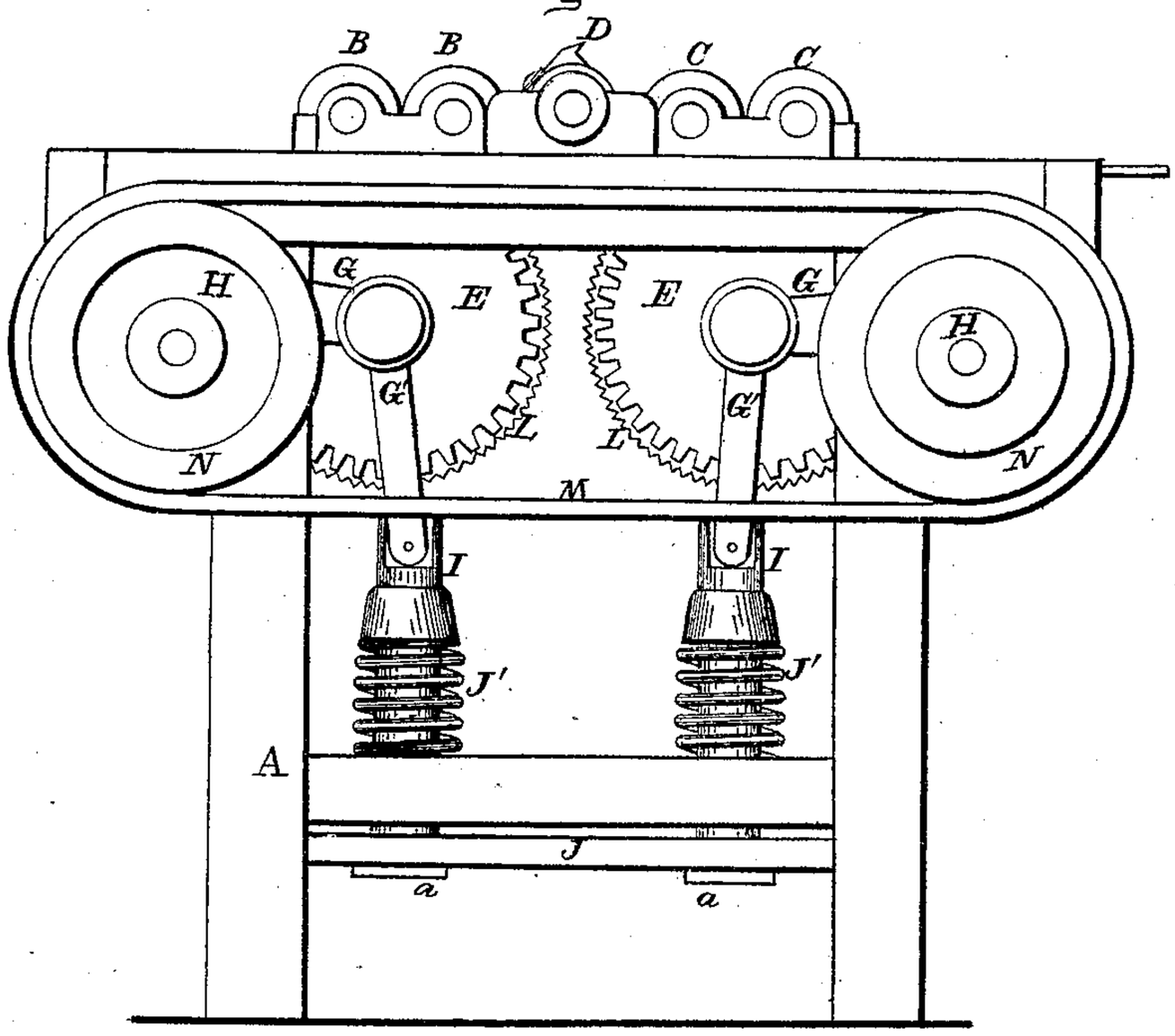
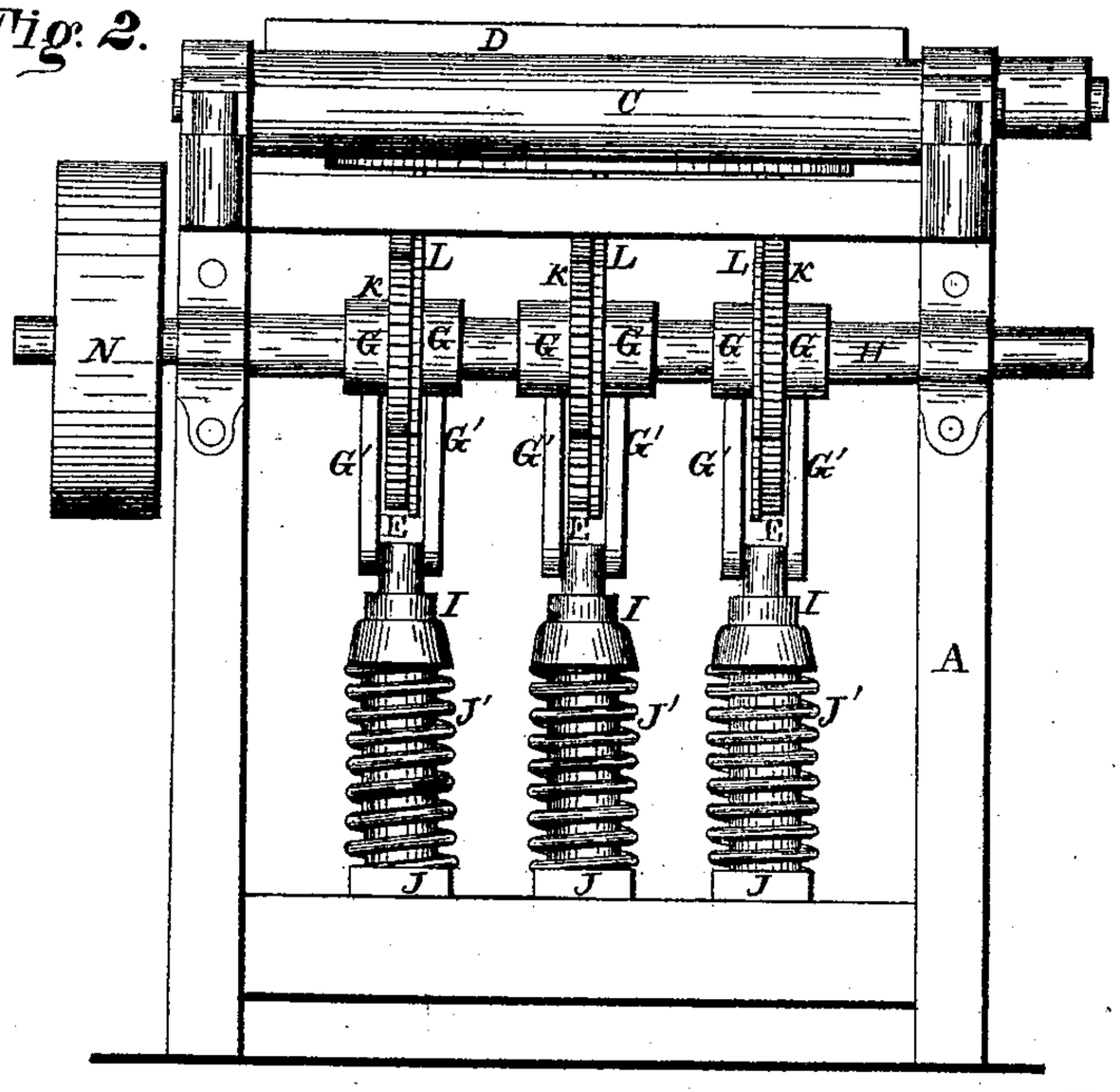


Fig. 2.



Witnesses.

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Charles Hupe

Inventor.

J. L. Kilgore.
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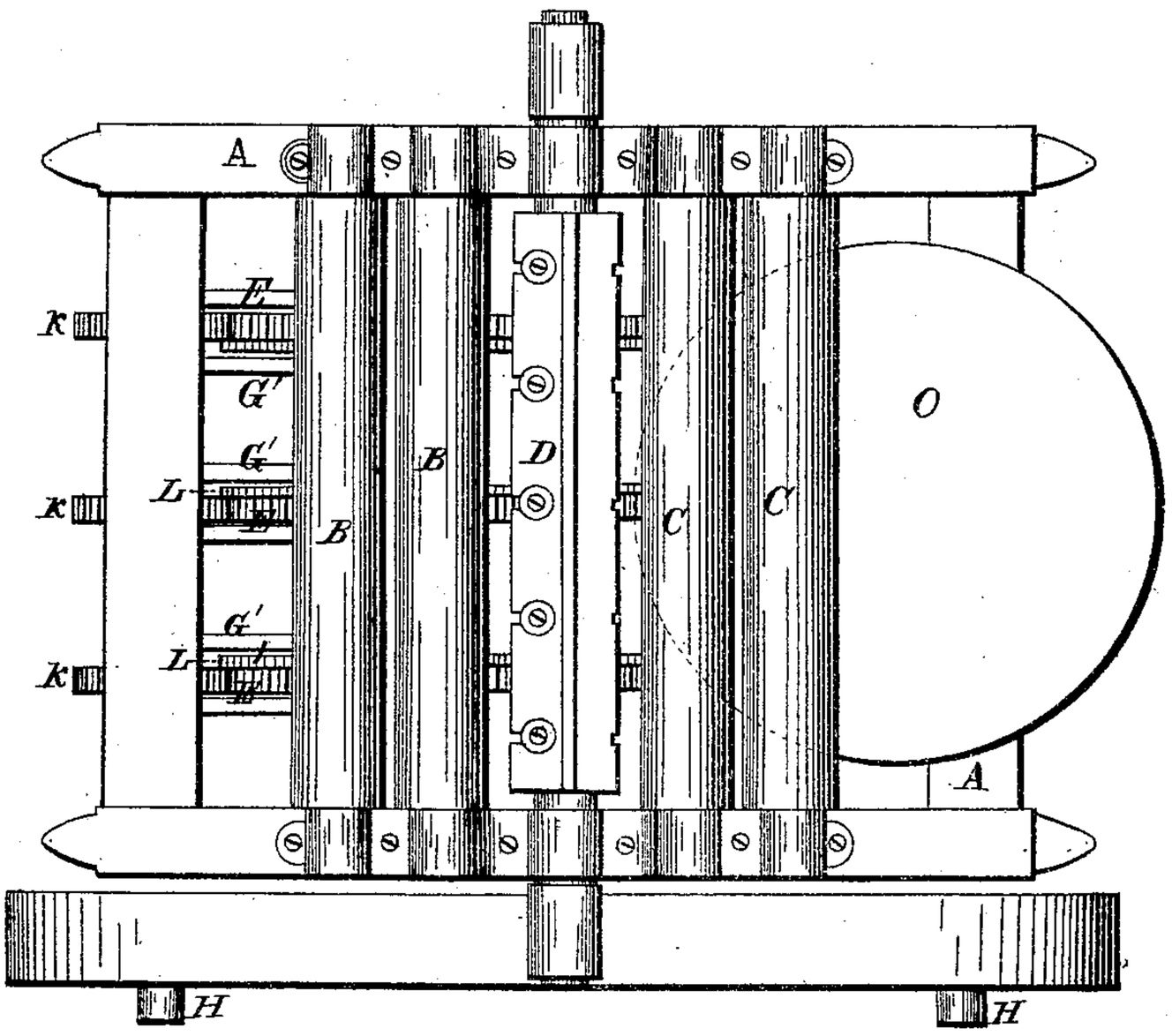
2 Sheets--Sheet 2.

J. L. KILGORE.

Making Barrel-Heads.

No. 144,771. Patented Nov. 18, 1873.

Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES L. KILGORE, OF CLEVELAND, OHIO.

IMPROVEMENT IN MAKING BARREL-HEADS.

Specification forming part of Letters Patent No. **144,771**, dated November 18, 1873; application filed October 24, 1873.

To all whom it may concern:

Be it known that I, JAMES L. KILGORE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new Improvement in Making Barrel-Heads; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings making part of the same.

Figures 1 and 2 are side elevations of the planer. Fig. 3 is a plan view.

Like letters of reference refer to like parts in the several views.

This invention is a barrel-head planer; and the special object thereof is to smooth or dress up the barrel-head without taking out the warp or wind of the heading, and thus avoid making the head thinner in one place than in another.

The construction of the planer and its operation are as follows, viz: Across the top of the frame A are journaled two pairs of rollers, B C, Fig. 3, between which is journaled a revolving cutter or cutters, D, the edges of which, when downward, project a little beyond the face of the rollers to permit of their cutting. Immediately beneath each pair of rollers are arranged three cog-wheels, E, Fig. 2. Each wheel has its bearing in the elbow of an adjustable bracket, G, between the cheeks of which it revolves. The upper arm of each of the brackets is attached loosely to a shaft, H, whereas each dependent arm G′ is pivoted to a puppet, I, as shown in Fig. 2. The lower ends of the puppets pass loosely through the cross-pieces J, in which they are held and guided, and which are prevented by nuts *a* from springing upward by the tension of the springs J′ so far as to touch the rollers. On the shafts H are secured pinions K, Figs. 2 and 3, between the upper arms of the brackets. Said pinions engage and actuate the wheels E. Secured to one side of each of the wheels E is a sharp-toothed wheel, L, Fig. 1, the teeth of which project beyond the teeth of the wheels E, as will be seen in said figure. The two shafts H are connected to each other by a belt, M, passing over the pulleys N, whereby both shafts and pinions thereon are operated at the same time.

As above said, this machine is for planing or dressing up the sides of barrel-heads without shaving them so much as to take out the warp or wind.

Barrel-heads are usually made up of two or more pieces jointed and doweled to each other. Such heads are more or less warped or sprung, and variable in thickness, so that on dressing down the rough surface care must be taken not to shave more on one part of the warped surface than on the other—that is to say, smoothing and planing down of the surface is done without reference to taking out the warp; hence this part of the work is usually done by hand, to avoid shaving so much on one part as to make it too thin, or cutting so deep as to expose the dowel-pins. To avoid this hand-labor is the purpose of this machine, the operation of which is as follows:

A barrel-head to be planed is laid on the front edge of the machine, as shown in Fig. 3, in which O represents such a head. On pushing the head forward, it is caught between the rollers C and the sharp-toothed feed-wheels L, whereby it is drawn under the rollers to the cutters D, and thereby planed off, and carried along under and away from the cutters by the corresponding rollers and toothed wheels on the opposite side of the frame. Should the heading be variable in thickness or warped it would, on passing through the machine, be pressed upon by the rollers harder where the part is thick than where it is thin or warped; the consequence would be to depress the wheel or wheels E on which such extra pressure was exerted, so that the cutter would not plane off any more from the thick part than where it was thin; hence the face of the heading would be only smoothed off equally, leaving the warp and thickness about the same after planing as it was before. The springs P around the puppets are of sufficient thickness to hold the wheels E against ordinary pressure, or that required to keep the heading to the cutters, but will yield when the pressure is increased by the thickness or by the warp of the heading. In place of the puppets and springs, weights may be used with equal effect.

It will be obvious that, by making the feed-wheels L adjustable, and each one independent of the other, one part of a piece of heading cannot be planed so much thinner than

any other part as to spoil it, as the adjustable wheels serve as a bed on which the heading lies, and readily yields to the unevenness and irregularity of the heading.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The adjustable brackets G and wheels E and L, in combination with the pinions K and rollers B B C C, substantially in the manner as and for the purpose set forth.

2. The puppets I, springs J′, brackets G, wheels E L, and pinion K, as arranged in relation to and in combination with the rollers B B C C and cutter D, substantially in the manner as and for the purpose set forth.

JAMES L. KILGORE.

Witnesses:
J. H. BURRIDGE,
A. F. CORNELL.