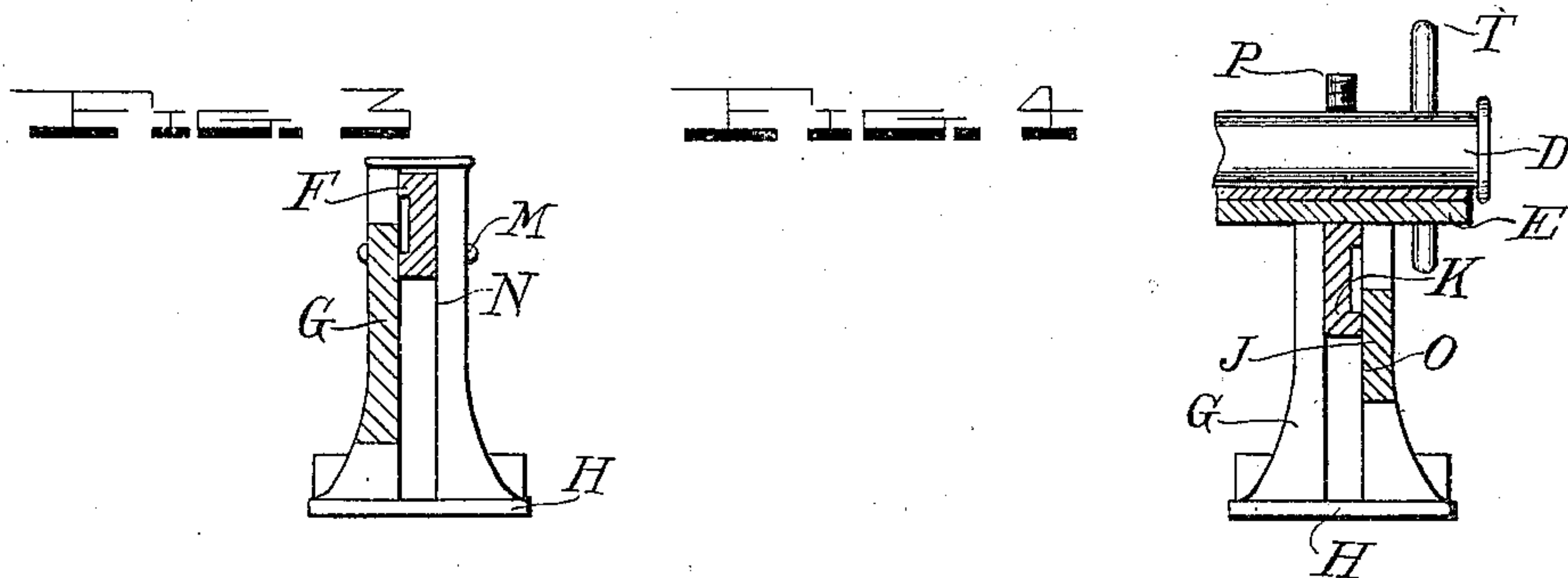
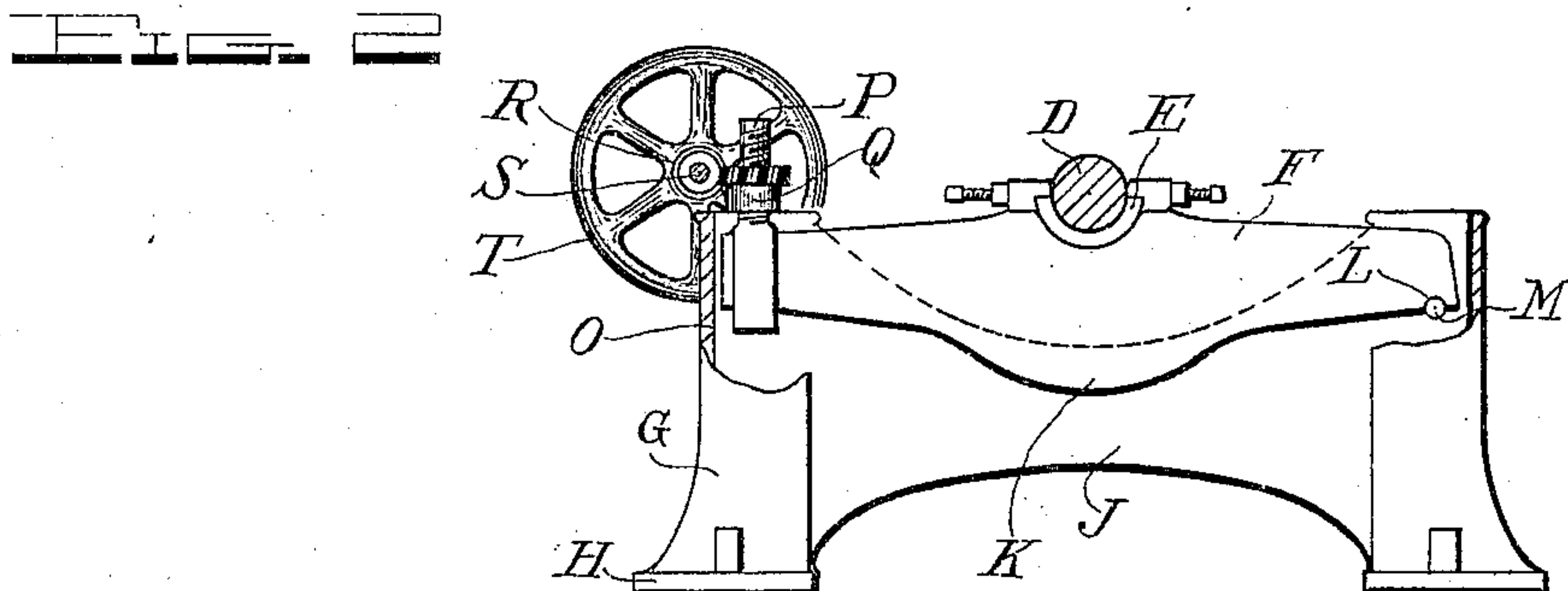
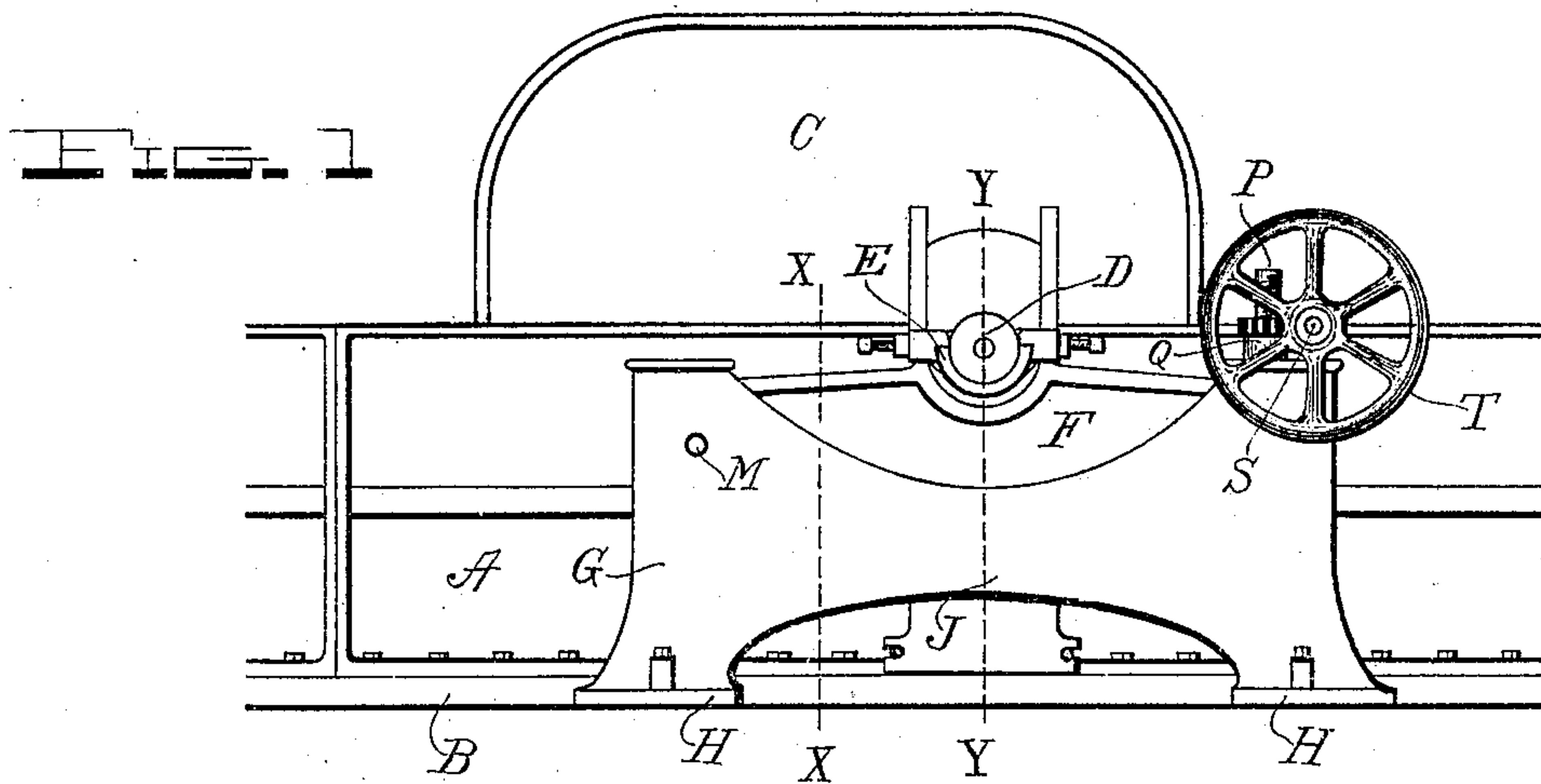


No. 820,137.

PATENTED MAY 8, 1906.

M. R. RUST.  
LIGHTER BAR STAND.  
APPLICATION FILED NOV. 9, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

MORTIMER R. RUST, OF FULTON, NEW YORK, ASSIGNOR TO THE DILTS  
MACHINE WORKS, OF FULTON, NEW YORK.

## LIGHTER-BAR STAND.

No. 820,137.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed November 9, 1905. Serial No. 286,464.

*To all whom it may concern:*

Be it known that I, MORTIMER R. RUST, a citizen of the United States, residing at Fulton, in the county of Oswego and State of New York, have invented certain new and useful Improvements in Lighter-Bar Stands, of which the following is a specification.

My invention relates to lighter-bar stands—that is to say, it directly belongs to the particular class of machines known as “rag-engines” or “beating-engines” constructed for the purpose of reducing rags or wood fiber to pulp used in the manufacture of paper or the like—and constitutes those portions of the machine that support the journals of the revolvable spindle or shaft of the beating-roll.

The object of my invention is to afford rigid carriers for the lighter-bars erected independent of the base or bottom of the tub and which by special and peculiar construction prevent any displacement, “weave,” or tremble or vibrations in any direction during the operation of the machine.

In those stands most commonly employed with which I am acquainted the lighter-bar is supported by pillars erected at separated points at the sides of the tub, oftentimes upon the same bed. It has been determined by experience that with this usual construction vibration cannot be wholly avoided no matter how rigid the pillars and fastenings may be made. Furthermore, both pillars upon one side of the tub in the nature of things do not vibrate to the same extent or in the same direction, and this fault is augmented by reason of the still different behavior of the pillars upon the opposite side of the tub upholding the other journal of the spindle. Thus the spindle is subjected to irregular derangements, which though slight in themselves are in their effect cumulative and injurious and lessen the operative life of the machine, with consequent costs for necessary repairs.

It is the intent of the special construction comprising my invention to prevent the vibrations referred to.

I accomplish the stated object by means of the construction and arrangement of parts illustrated in the accompanying drawings, of which—

Figure 1 is an exterior side view; Fig. 2, a side view of the inner side of the stand, and

Fig. 3 a vertical section looking to the left upon the line X X of Fig. 1. Fig. 4 represents a section upon broken line Y Y looking to the right.

Like letters are used to refer to the same parts throughout.

Considering the drawings, the letter A designates the tub, and B the tub-bottom.

The hood or curb is marked C, and the spindle D. The journal of the spindle rests in the bearing E, carried by the lighter-bar F, all of the customary pattern and arrangement.

The lighter-bar stand G is, as shown, a single solid piece standing independent of the tub and tub-bottom upon its own foot-plates H, intergal with the stand and from which rise the ends, joined, as illustrated, by a plate-body portion J, formed, as stated, integral with the ends and foot-plates and having its narrowest part midway between the ends and midway of the height of the stand. As ordinarily constructed the edges of the plate-body J are curved, and the extremities of the curves meet the tops and bottoms of the ends of the stand. I do not, however, limit myself to the precise formation of the stand shown and described.

In Figs. 2 and 4 it will be noted that the dropped middle portion K of the lighter-bar F falls below the upper edge of the body-plate J, and in Fig. 4 it is shown that such dropped portion K of the lighter-bar bears against the inner side of the plate-body J at its middle. It is now believed to be clear that the middle of the bar cannot bend outwardly, and it will be also understood that as the arrangement of the stand upon the opposite side of the tub (not shown) is the same as that illustrated no end thrust of the spindle in either direction can displace the middle of the lighter-bars.

In Fig. 2 it is shown that the notch L in the lighter-bar engages the pin M in the usual manner and that the breadth of the recess N, formed in the left-hand end of the stand, (see Fig. 3,) fits the end of the bar at the sides, preventing lateral movement, while allowing the bar free vertical pivotal movement upon the pin. The other end of the lighter-bar (see Fig. 2 and Fig. 4) passes through vertical recess O, formed in the right-hand end of the stand, this recess, like the recess N, fitting the width of the end of the bar and pre-



venting vibration sidewise, while allowing the end of the bar to be raised or lowered by the vertical screw P, that engages the worm-wheel nut Q, that is turned on the top of the end of the stand by the worm R on the adjusting-shaft S, which is rotated by the hand-wheel T in the customary manner.

Having thus described my invention and explained the mode of its operation, what I claim is—

1. In a lighter-bar stand, the combination with a stand comprising the foot-plates, the vertical ends, and the body portion joining the said ends and extending between them, the said foot-plates, ends and body being formed in a single piece, of means for pivotally supporting one end of a lighter-bar upon said stand, and adjusting devices adapted to support the remaining end of the lighter-bar upon the stand, substantially as described.

2. In a lighter-bar stand, the combination with a stand comprising the foot-plates, the vertical ends, and the body portion joining the said ends and extending between them, of means for pivotally supporting one end of the lighter-bar upon said stand, and adjusting devices adapted to support the remaining

end of the lighter-bar upon the stand, substantially as described.

3. The combination with a stand having the vertical ends and the body portion joining the said ends and extending between them, of a lighter-bar and devices adapted to support it upon the said stand, the said lighter-bar having a middle dropped or downwardly-projecting portion arranged in contact with the inner surface of the said body portion of the stand, as and for the purpose described.

4. The combination in a beating-engine, of the tub, and a lighter-bar stand having vertical ends and a body portion joining the said ends and extending between them, the said vertical ends of the lighter-bar stand being constructed and arranged to support the said stand independently of the said tub, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MORTIMER R. RUST.

Witnesses:

C. B. DILTS,  
CLAUDE E. GUILLE.