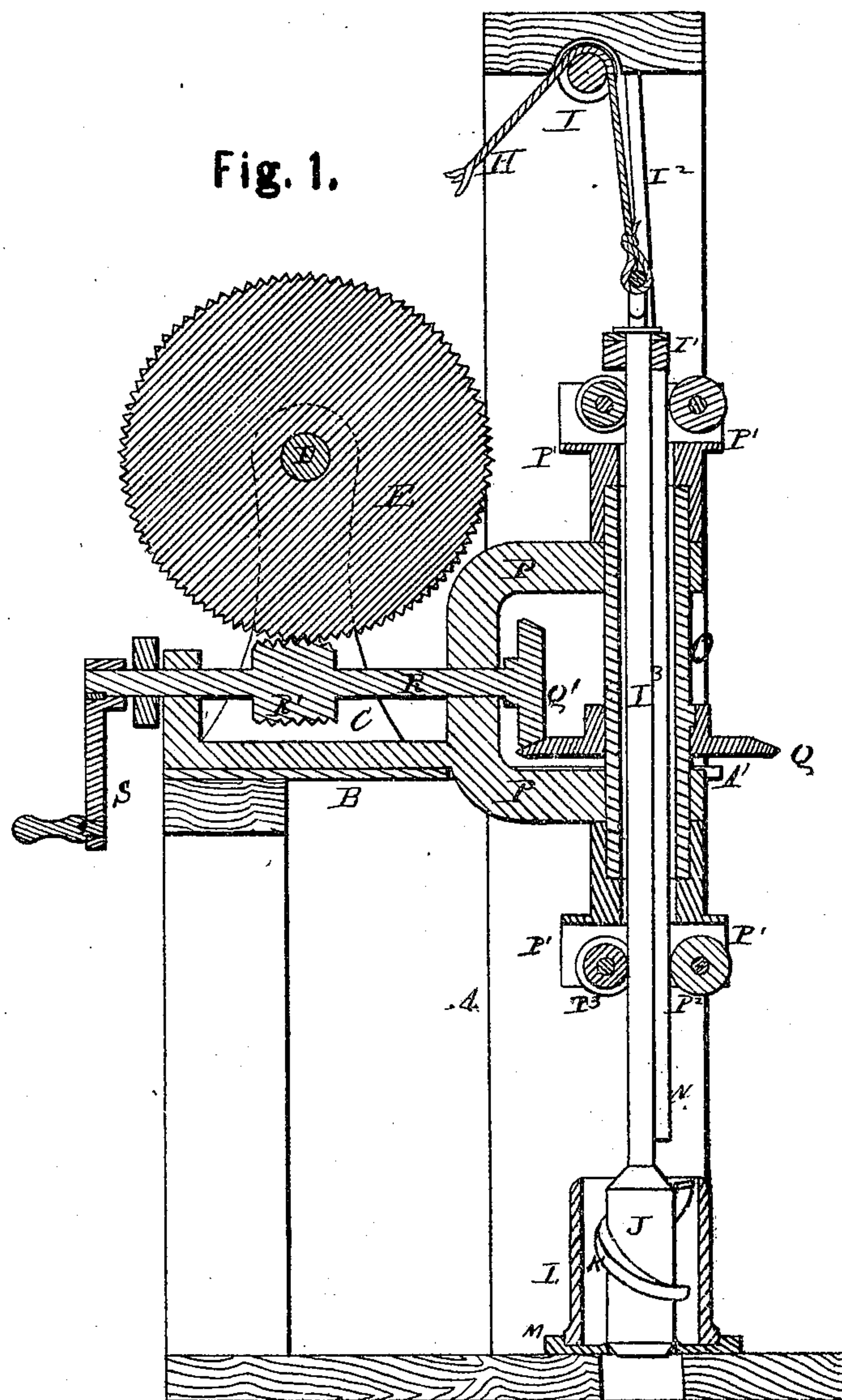


J. T. GLASS & L. E. MORRELL.

Pipe-Molding Machine.

No. 129,547.

Patented July 16, 1872.



WITNESSES.

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Phil. C. Hosi.

INVENTORS.

James T. Glass,
Lewis E. Morrell,
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Attys.

2 Sheets--Sheet 2.

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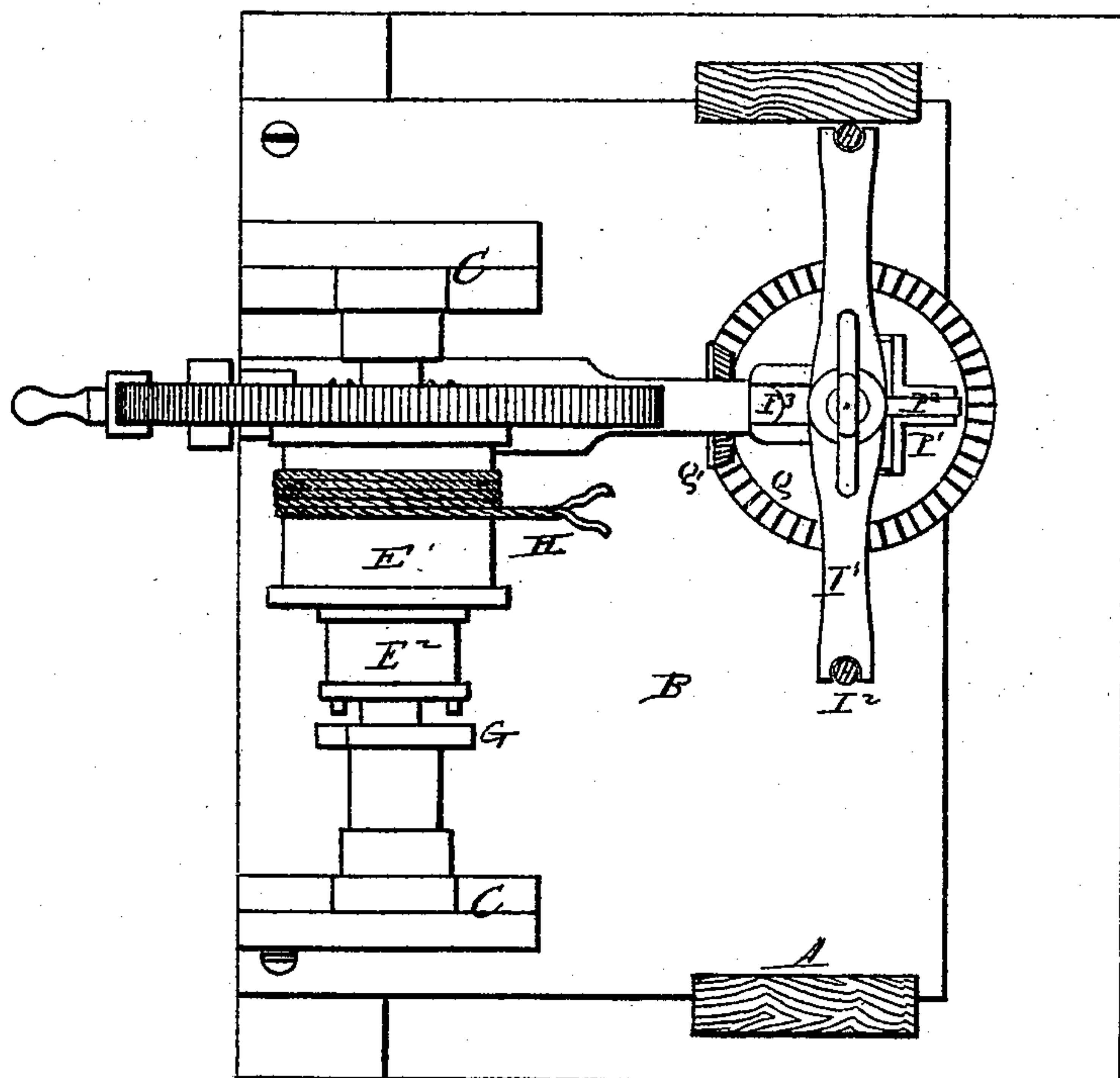


Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES T. GLASS AND LEWIS E. MORRELL, OF COLUMBUS, OHIO.

IMPROVEMENT IN PIPE-MOLDING MACHINES.

Specification forming part of Letters Patent No. 129,547, dated July 16, 1872.

To all whom it may concern:

Be it known that we, JAMES T. GLASS and LEWIS E. MORRELL, of Columbus, in the county of Franklin and State of Ohio, have invented a new and valuable Improvement in Pipe-Molding Machine; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of our invention. Fig. 2 is a plan view of our invention.

This invention has relation to pipe-molding machinery; and consists in the construction and novel arrangement of devices for feeding the mold-packer, as hereinafter more fully described.

Referring to the drawing, A designates an upright frame, supporting a horizontal platform, B, recessed in front at A' for the reception of the packer-shaft and collars, and provided with the standards C, holding a pulley and worm-wheel shaft, D. E represents a worm-wheel, and E¹ E² a double windlass-pulley, placed on the shaft D. The wheel is rigidly secured to the shaft, but the pulley is loose, and adapted for coupling with the shaft through the medium of a sliding clutch, G. The cord H, from the pulley, passes over a sheave, I, at the top of the frame A, and connects with a cross-head, I¹, having recessed ends to slide on vertical guides I², and connected to the upper end of the rotary packer-shaft I³. Upon the lower end of the shaft I³ is the cylindrical packer-head J, furnished with the spiral ridge or wing K, to pack the sand in the flask L. The packer being inserted in the flask and into the chill-plate M, the flask is filled with molding-sand, the packer or pattern is made to revolve and feed upward, leaving the sand firmly packed inside the flask. The shaft I³ is constructed with a feather, N, and passes through a sleeve, O, correspondingly chan-

neled, and adapted to rotate with said shaft. This sleeve is supported by brackets P, attached to the platform B. The upper and lower ends of said sleeve are provided with slotted brackets P¹, holding friction-wheels P² P³, working against the shaft I³, according as the latter works upward or downward. The roller P³ is grooved and works in contact with the rounded part of the shaft, the others touching the feather. The sleeve also holds a bevel-gear wheel, Q, which engages with a pinion, Q', on the end of a shaft, R, having a worm, R', working in connection with the worm-wheel E, and operated by means of a crank, S, or otherwise. By reason of the bevel-gearing and pulley connection the rotation and feed of the packer-shaft are simultaneous. To facilitate the lowering of the shaft the pulley may be disconnected from the clutch. The shaft will then fall by its own weight.

The object of a double pulley is to provide for a change of speed of the feed in its relation to the rotary motion of the shaft.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The channel-sleeve O, provided with the slotted brackets P¹, having friction-wheels P² P³, in combination with the vertically-feeding feathered packer-shaft I³, substantially as specified.

2. The combination of the shaft I³, sleeve O, gearing *g g'*, worm-wheel and worm E R', pulleys E¹ E², and cord H, substantially as specified.

3. In a pipe-molding machine, the shaft D, having the sliding clutch G, windlass-pulley E¹, and worm-wheel or equivalent E, substantially as described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JAMES T. GLASS.
LEWIS E. MORRELL.

Witnesses:

DANFORTH H. ROYCE,
JAMES G. PULLING.