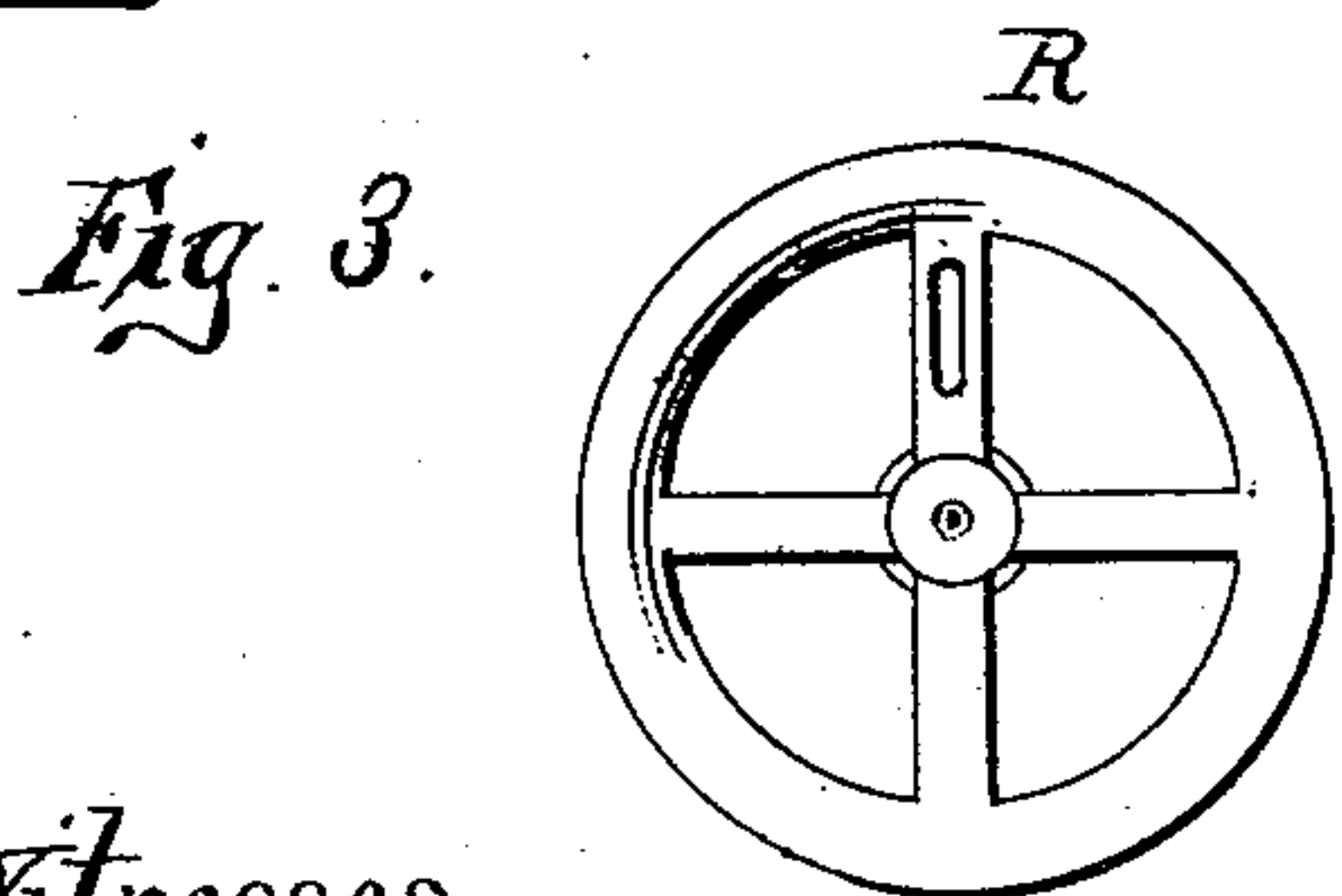
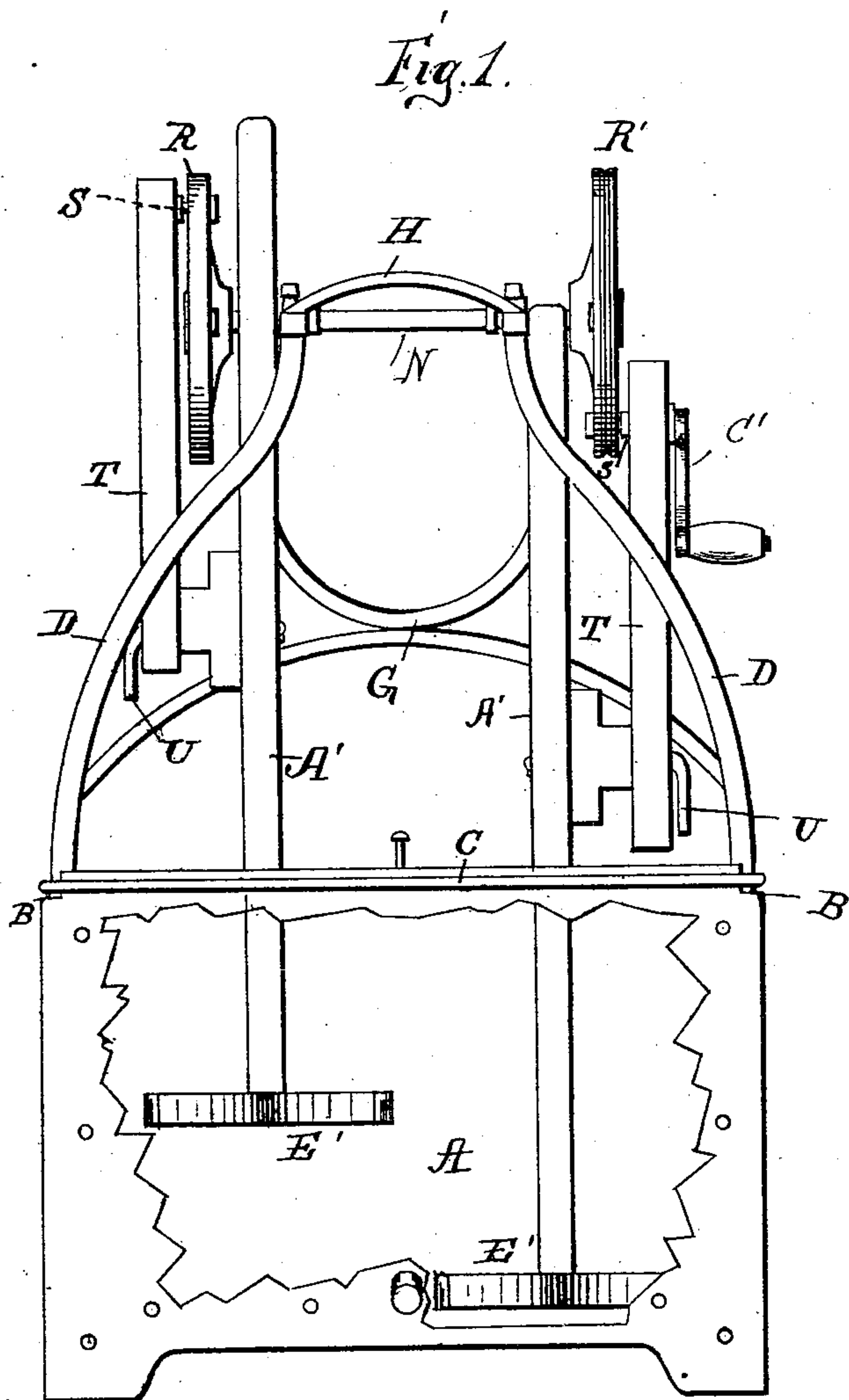


(Model.)

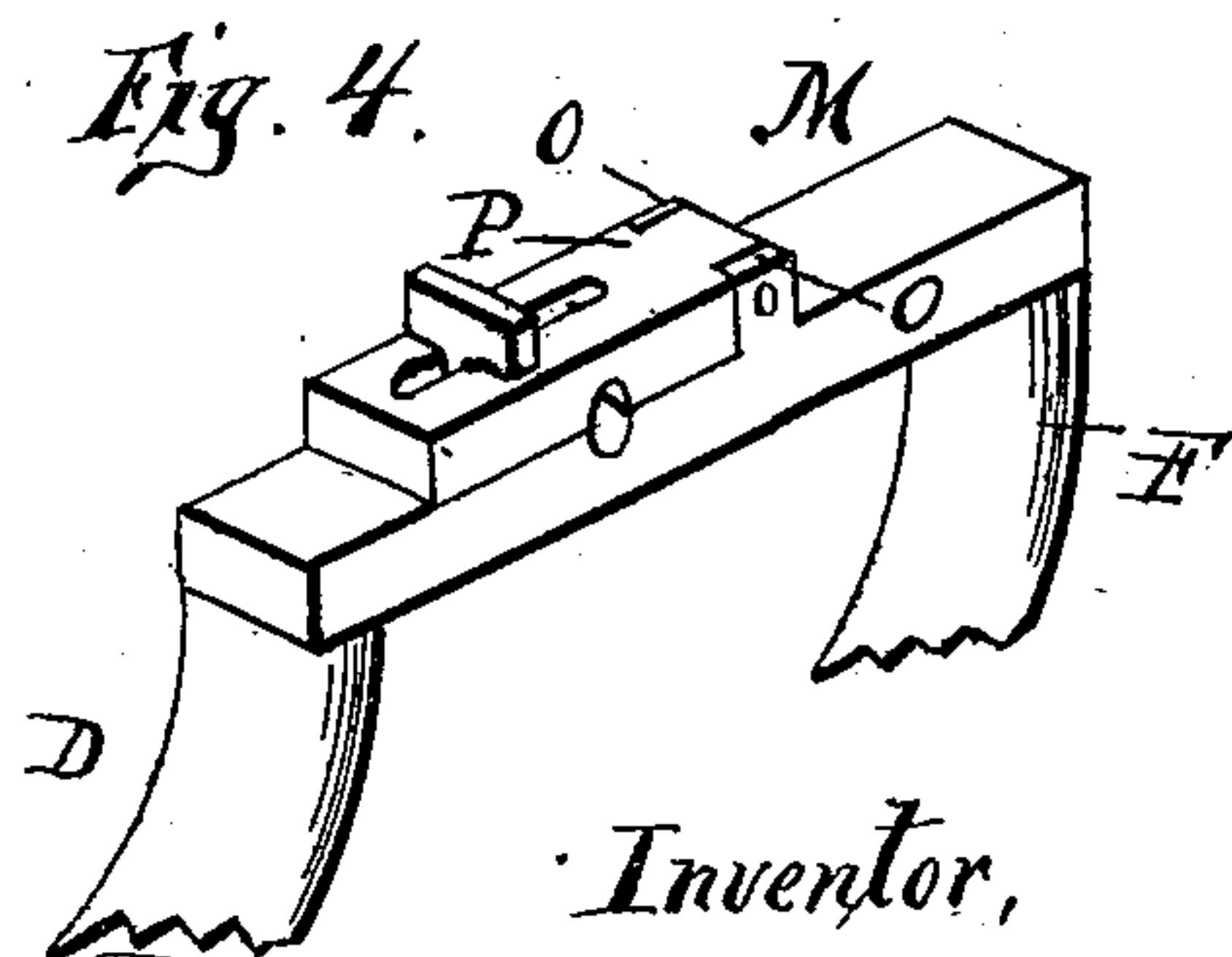
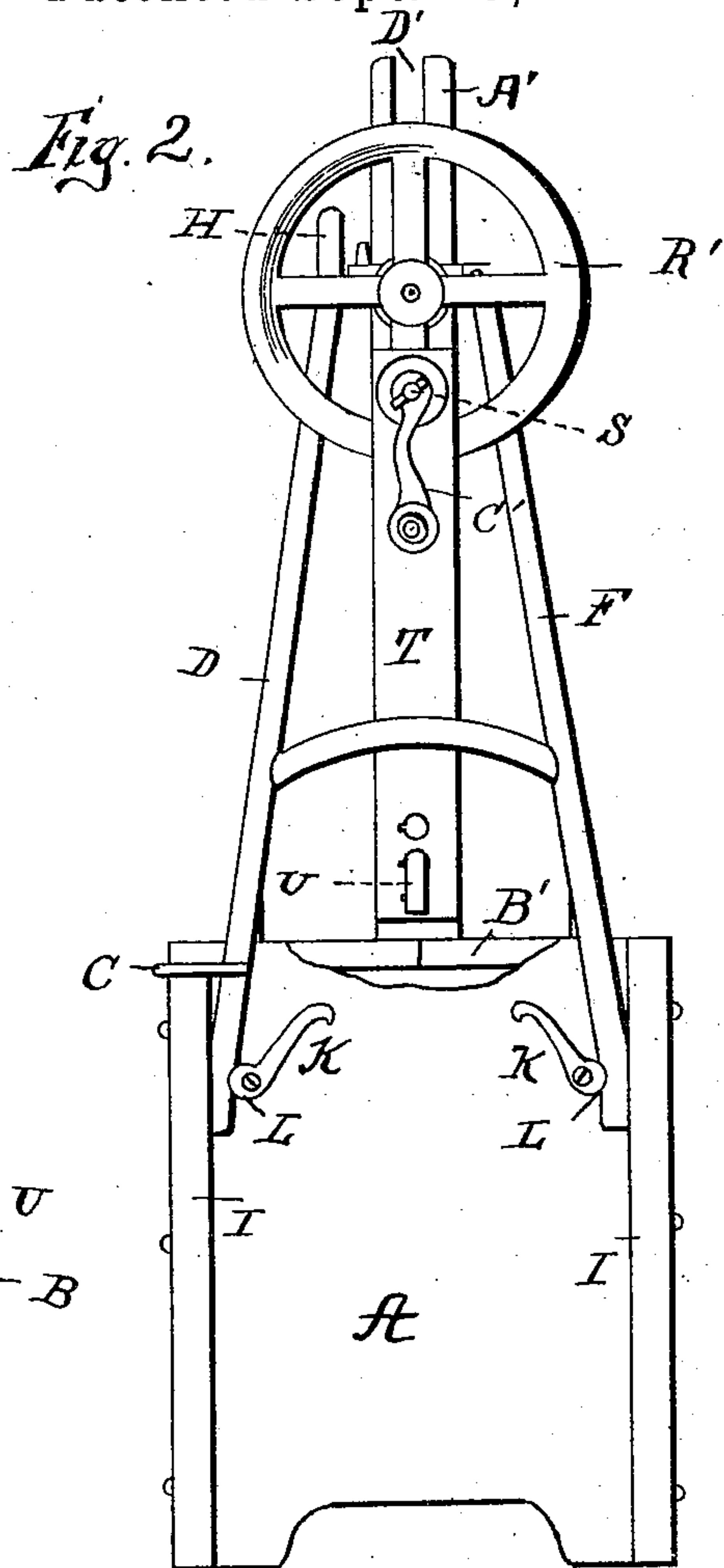
F. M. WRIGHT.
RECIPROCATING CHURN

No. 247,144.

Patented Sept. 13, 1881.



Witnesses,
Edwin L. Jewell.
H. Aubrey Toulmin



Inventor,
Frank M. Wright.
By C. M. Alexander
Atty.

UNITED STATES PATENT OFFICE.

FRANK M. WRIGHT, OF PALMYRA, NEW YORK.

RECIPROCATING CHURN.

SPECIFICATION forming part of Letters Patent No. 247,144, dated September 13, 1881.

Application filed June 2, 1881. (Model.)

To all whom it may concern:

Be it known that I, FRANK M. WRIGHT, of Palmyra, in the county of Wayne, and in the State of New York, have invented certain new and useful Improvements in Reciprocating Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention has for its objects to provide an improved churn that may be cheaply constructed, readily taken apart for cleaning, and conveniently put together again thereafter, and which can be operated with little labor to produce the butter expeditiously, as more fully hereinafter set forth.

These objects I attain by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation, with a portion of the body broken away; Fig. 2, an end elevation; Fig. 3, a detached view of one of the driving-wheels; and Fig. 4, a detached view of the frame, showing the journal-bearings.

The letter A indicates the body of the churn or cream-receptacle, which consists of a rectangular box of wood or other suitable material, with the parts properly bolted together or otherwise secured in any convenient manner. The said box, on its upper corners at one side, is provided or formed with shoulders B, the opposite side being without such shoulders at the corners. The shoulders form a seat for a longitudinal base-bar or connecting-rod, C, connecting the two rising standards D of the frame which supports the working parts of the churn. The frame has similar standards, F, at the opposite sides, which are connected by braces G. The standards D are connected at the top by a single brace, H, as indicated. The lower ends of the respective standards D are adapted to set between the projecting sides I of the churn-body, and to bear against the ends of such body, being held to their seats by means of cams K, adapted to bear into the recesses L formed in the lower ends of the standards D and F.

The upper end of the frame carries two trans-

verse bars, M, in which are the journal-bearings for a shaft, N. The said bars are provided with lugs O, in which are pivoted the ends of the top boxes, P, which confine the shaft to the journal-bearings above mentioned. The top boxes, at their free ends, are slotted, and may be fastened to the transverse bars, so as to secure the shaft to its bearings.

The letters R R' indicate two fly-wheels mounted on the opposite ends of the shaft N respectively, and keyed or otherwise fastened thereto. The said fly-wheels are provided with adjustable wrist-pins S. The wrist-pins S may be adjustably secured to the radial arms of the fly-wheels by passing the pins either through oblong slots, as shown, or through holes arranged at proper distances apart, and using tightening-nuts on the inner sides of the fly-wheel. The wrist-pins on the respective wheels are located diametrically opposite each other, and to them are connected the upper ends of the pitmen T, the lower ends of which connect with the pins U on the dasher-rods A', which are adapted to work vertically through rectangular openings in the divided top, B', of the churn-body, the said top being held in a rabbeted seat at the upper edge of said churn.

To the wrist-pin of one of the fly-wheels (which wrist-pin projects for the purpose) is secured the crank or winch C', by which the wheels are turned to operate the dashers. The upper ends of the dasher-rods are slotted, as indicated by the letter D', and the shaft N extends through such slots, so as to guide the upper ends of the dash-rods, which reciprocate on the shaft. The lower ends of the dash-rods are provided with dashers E', which may be of the ordinary or any approved form.

The apparatus or churn is operated by rotating the driving-shaft by turning the crank, which causes the dash-rods to reciprocate alternately in opposite directions, as will be evident.

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

1. In combination with the ends of the churn-body and the projecting sides of the box, the standards D and F, recessed at L, and the cams K, adapted to bear in said recesses, substantially as and for the purposes described.

2. In combination with the churn-body, the removable supporting-frame and removable divided top of the churn-body, the driving-shaft journaled in suitable bearings in said frame, 5 and provided with fly-wheels having diametrically-opposite wrist-pins, the pitmen secured at their upper ends to said wrist-pins, the dasher-rods slotted at their upper ends and adapted to work vertically upon the driving- 10 shaft and through suitable apertures formed at the adjoining edges of the divided top, the pitmen being connected at their lower ends to

suitable lug-pins on the dasher-rods to reciprocate the same, the parts being all arranged relatively so as to be conveniently separated 15 for the purpose of cleaning, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1881.

FRANK M. WRIGHT.

Witnesses:

PLINY J. SEXTON,
ROBT. M. SMITH.