2 Sheets—Sheet 1.

J. H. BARR & J. H. SMITH.

DOUGH KNEADER.

No. 105,293. Patented July 12, 1870.

Fig. 1.

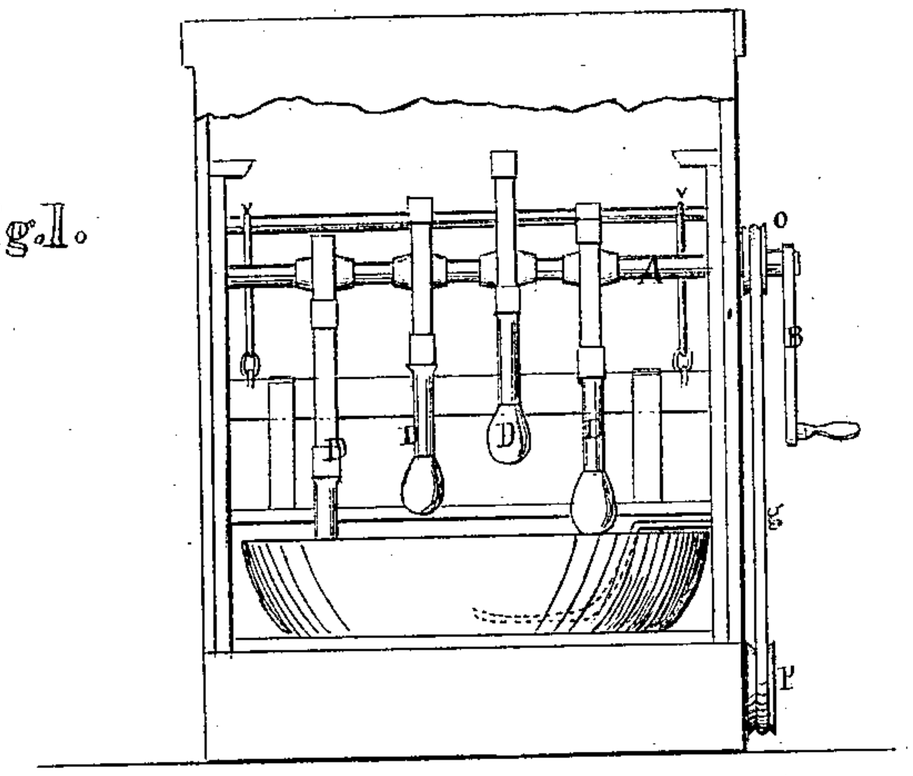
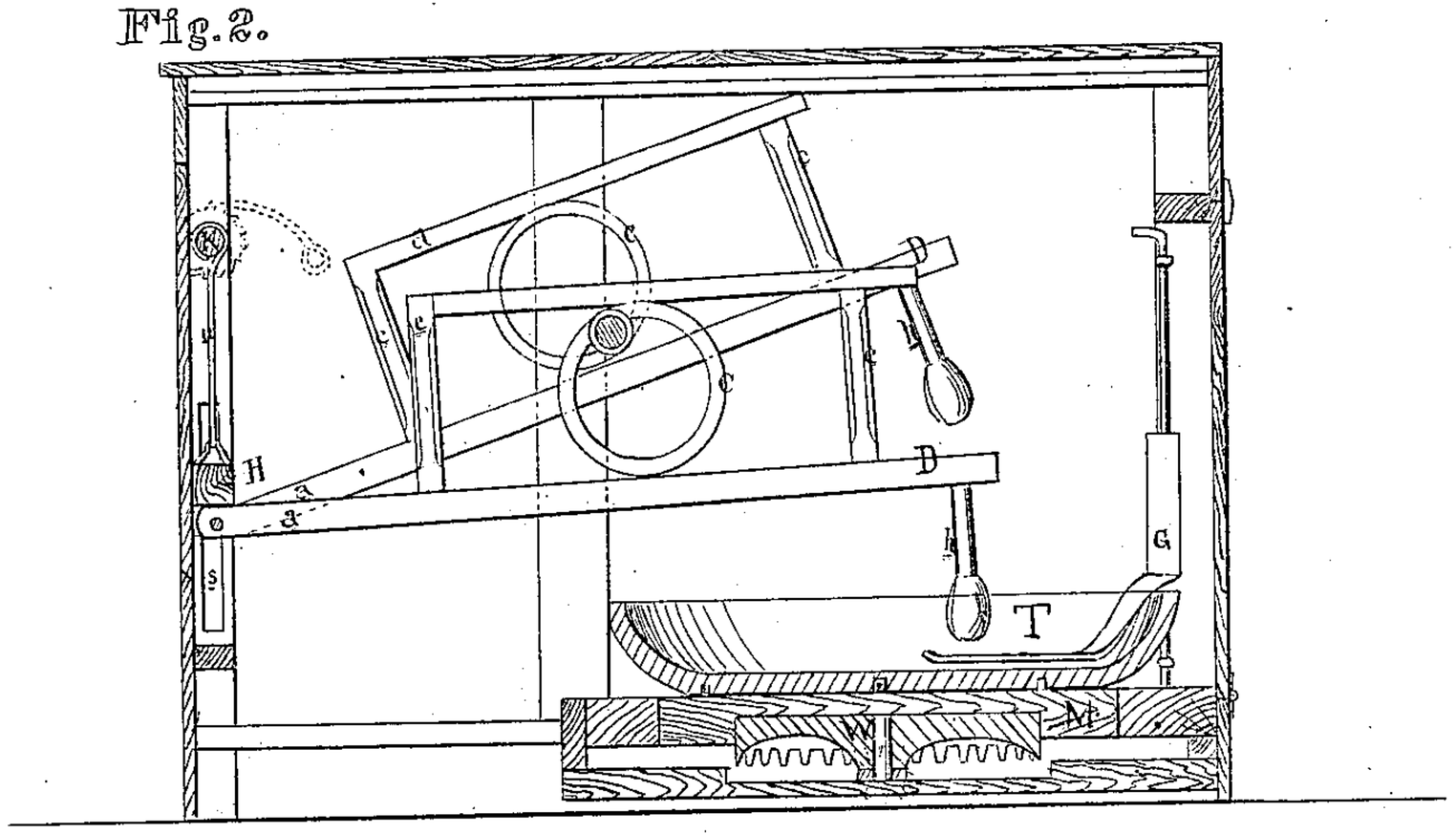


Fig. 2.



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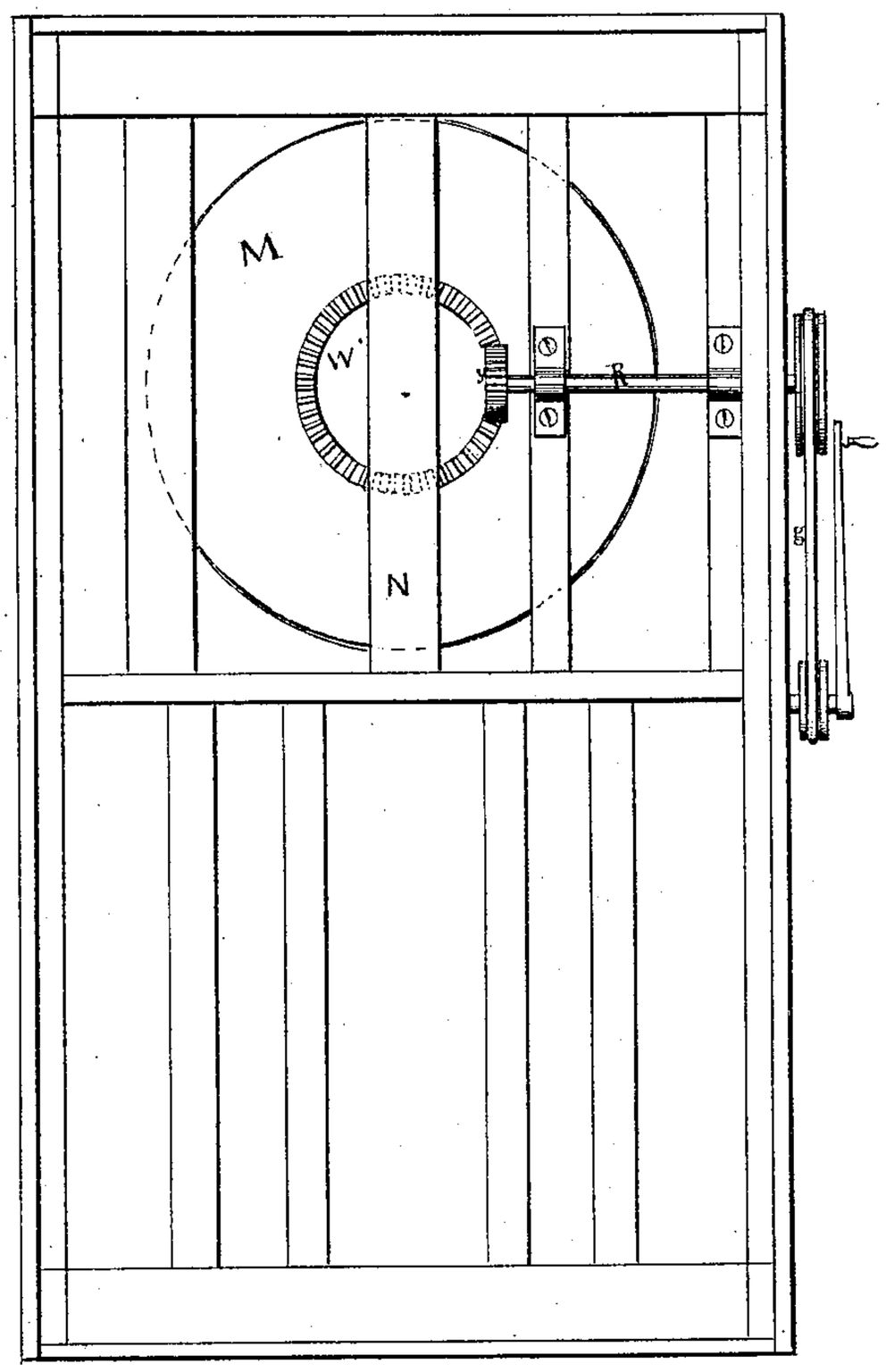
2 Sheets—Sheet 2.

J. H. BARR & J. H. SMITH.

DOUGH KNEADER.

No. 105,293. Patented July 12, 1870.

Fig. 3.



Witnesses.

Inventors
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United States Patent Office.

JOHN H. BARR AND JACOB H. SMITH, OF ROANOKE, INDIANA.

Letters Patent No. 105,293, *dated July* 12, 1870.

IMPROVED DOUGH-KNEADER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN H. BARR and JACOB H. SMITH, of Roanoke, in the county of Huntingdon and State of Indiana, have invented a new and valuable Improvement in Dough-Kneaders and Butter-Workers; 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 an end view of my invention;

Figure 2 is a central vertical longitudinal section; and

Figure 3 is a bottom view thereof.

Our invention relates to means for kneading dough and working butter, and consists in a novel arrangement of devices intended to serve efficiently in either capacity. To this end, we construct a quadrangular box, as shown on the drawing, and arrange therein the devices following; that is to say—

The letter A represents a revolving shaft, arranged upon suitable bearings in the sides of the box, and having a crank, B, or its equivalent, by which it is actuated.

The letters C represent a series of eccentrics arranged upon this shaft A, in the manner shown on fig. 2, each alternate cam being so adjusted that its eccentric part shall extend in a direction from the shaft opposite its neighbor, and thereby secure a reciprocating motion for the beaters, hereinafter mentioned.

The letters D represent our beaters, constructed in the form shown on fig. 2, and pivoted at their rear ends, respectively, to the adjustable sliding bar H, described hereafter in this specification.

These beaters, respectively, have a base bar, *a*, which is pivoted to the bar H, uprights *c*, top-piece *d*, and pestle *h*.

The space between the top and bottom bars corresponds to the diameter of the eccentrics, and between which said bars such eccentrics revolve.

For the purpose of securing the bar or top piece *d* in place upon the cam, we make a groove in the under side thereof, adapted to the periphery of the cam in size and shape, and arrange the machinery so that said periphery shall move in said groove.

The letter H represents an adjustable or sliding bar, arranged for adjustment up or down in slots *s*, one of which is formed in each of the side-posts of the rear end of the box.

K represents a roller affixed in the side-posts of the rear end of the box, around which roller is passed the lifting-cords *u*, in the manner shown.

These cords *u* are attached at their lower ends, respectively, to the bar H, while their upper ends are made fast to a revolving pin or shaft at *v*.

To lift the bar H in its slots, or to lower it therein, we rotate the pin *v*, by a crank or other suitable device. The object in raising or lowering said bar is to adjust the position of the beaters at the operator's will.

O is a drum or pulley affixed to the shaft A, and

P is a similar drum or pulley, affixed to the shaft R, hereinafter mentioned.

A cord or belt, *g*, connects these two pulleys, and thereby actuates the shaft R.

The shaft R has its bearings in the bottom of the box, as shown on fig. 3, and has a pinion, *y*, on its inner end that meshes with and actuates the ratchet *w*, as represented.

M is a circular platform, pivoted at its center to the bar N, that is attached to the bottom of the box.

Said platform or disk is provided on its upper surface with pins or spurs, *z*, and on its lower surface with the circular ratchet *w*. By means of the pinion *y* and the ratchet *w* this platform is made to rotate whenever the machinery is in motion.

The letter T represents a bowl, constructed with small perforations in its bottom, adapted to fit upon the pins *z*, and thereby to be made to rotate with the platform M, and

The letter G is a spring, arranged to aid in keeping the bowl T in place.

To operate our device, we place the dough or butter, as the case may be, in the bowl, and turn the crank to the shaft A. It will readily be perceived that, by the rotation of shaft A, the beaters will be made to perform their work with certainty and dispatch, while, at the same time, the shaft R will be forced to carry the platform and its bowl around and around, and thereby aid efficiently in bringing the contents of the bowl under the strokes of the beaters.

We claim as our invention—

The beaters D *a*, adjustable bar H, and cams C, in combination with the shaft R, pinion *y*, disk M, bowl T, and spring G, when constructed and arranged to operate in the manner and for the purposes herein shown and described.

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

JOHN H. BARR.
JACOB H. SMITH.

Witnesses:
HENRY BASH,
DAVID M. BYE.