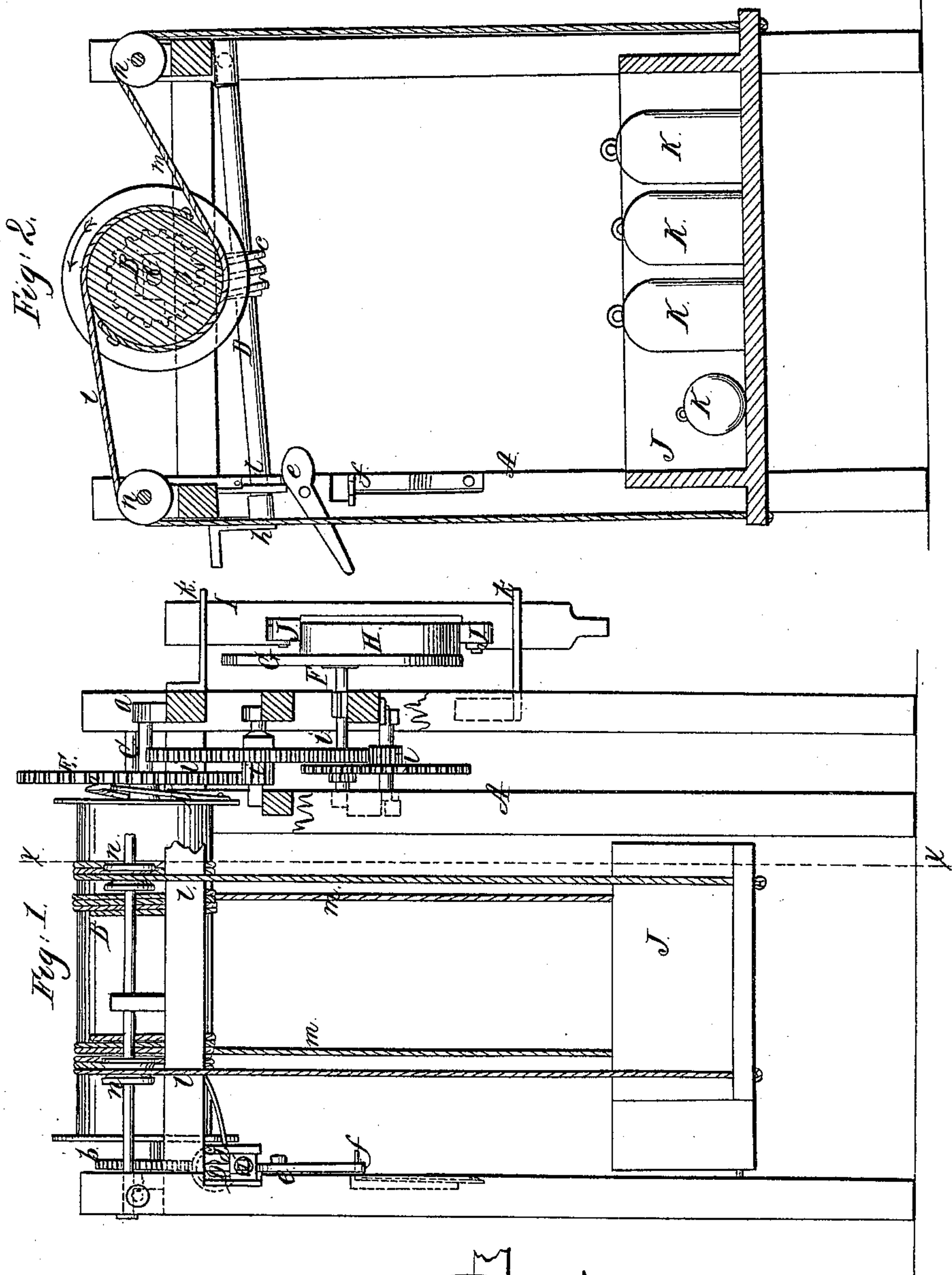


W. H. Baker,
Converting Motion.

N^o 26,078.

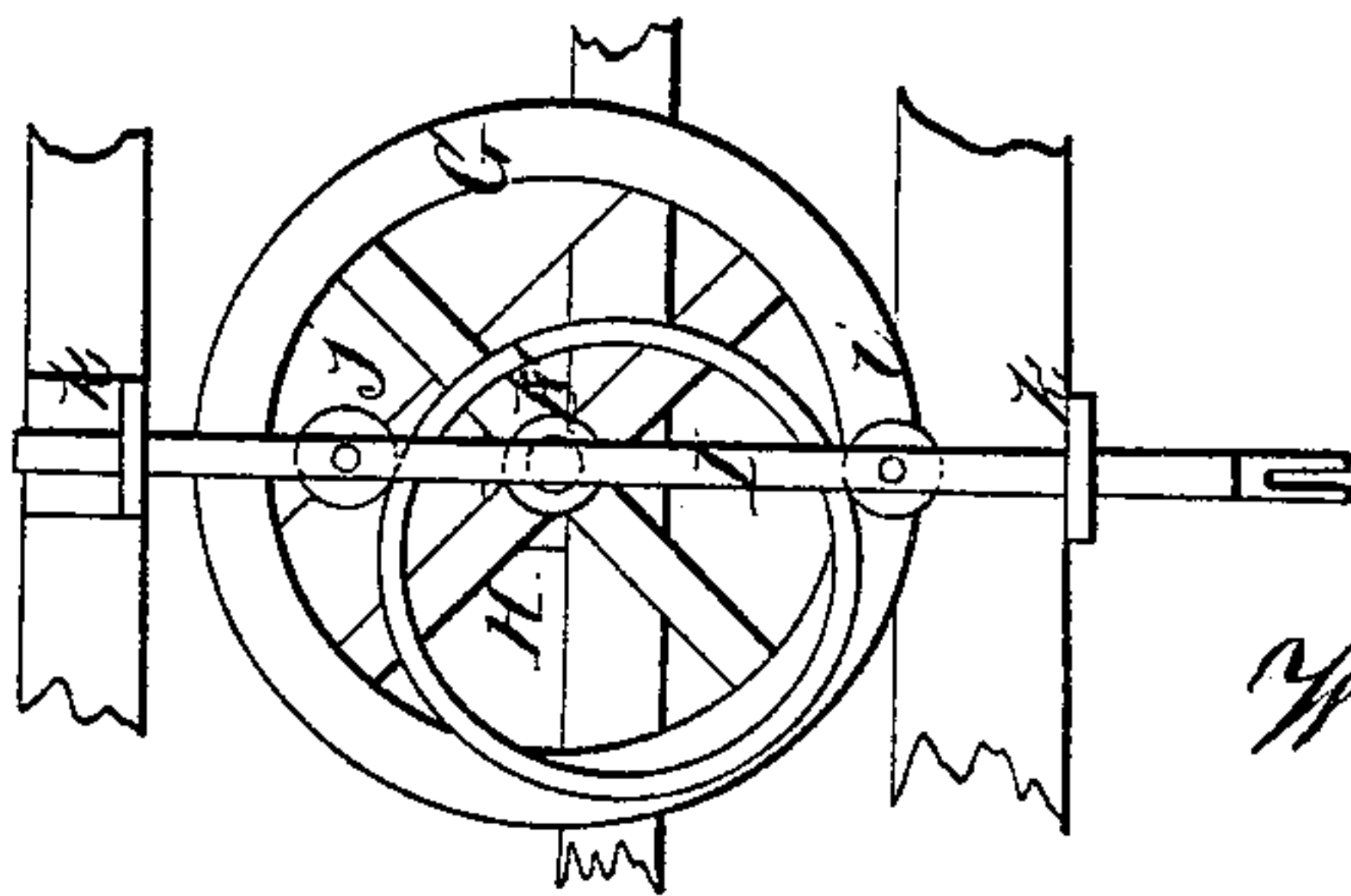
Patented Nov. 15, 1859.



Witnesses:

Michael Bead
W. D. Bensingers

Fig. 3



Inventor:

W. H. Baker

UNITED STATES PATENT OFFICE.

WM. H. BAKER, OF TAMAQUA, PENNSYLVANIA.

MECHANICAL MOVEMENT.

Specification of Letters Patent No. 26,078, dated November 15, 1859.

To all whom it may concern:

Be it known that I, W. H. BAKER, of Tamaqua, in the county of Schuylkill and State of Pennsylvania, have invented a new and Improved Mechanical Movement, the same being a means for applying the power of a weight to a reciprocating shaft for driving machinery; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my invention. Fig. 2, a vertical section of ditto, taken in the line *x, x*, Fig. 1. Fig. 3, a detached face view of a portion of ditto.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a simple mechanism for applying the power of a weight to a reciprocating driving shaft. The invention is more especially designed for operating light machinery such as churns, washing machines etc. and save the labor required by the manual operation of them.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a rectangular frame, which may be constructed in any proper way to support the working parts. On the upper part of this frame a drum B, is placed said drum being fitted loosely on a shaft C, the journals of which run in suitable bearings *a*, on the frame. At one end of the drum B, a worm wheel *b*, is placed, said wheel gearing into a screw *c*, on a shaft D, one end of which is fitted in an adjustable or sliding bearing *d*, so that the screw *c*, may be thrown either in or out of gear with the worm wheel *b*, when desired. The adjustable bearing *d*, is kept in proper position to retain the screw *c*, in gear with the worm wheel *b*, by means of a button *e*, and catch *f*; various plans however may be devised for this purpose. At the end of the shaft D, adjoining the adjustable bearing, a square *g*, is formed to receive a key *h*.

On the shaft C, a toothed wheel E, is placed and permanently attached. This wheel E, is connected by a train of multiplying wheels *i*, with a shaft F, which has a fly wheel G, on its outer end. To this outer or face side of the fly wheel G, a rim H, is attached eccentrically as shown clearly in

Fig. 3. The rim H, which operates as, and in fact is a cam, is fitted between rollers *j, j*, attached to a bar or shaft I, which is fitted in suitable guides K.

To the drum B, ropes or chains *l, l, m, m*, are attached in such a way that the ropes or chains *l, l*, may be wound on the drum in a reverse direction to the ropes or chains *m, m*, as shown clearly in Fig. 2. The ropes or chains pass over pulleys *n*, placed on suitable shafts, and to their lower ends a box J, is attached, to receive the necessary weights K.

To the end of the drum B, that is opposite to the toothed wheel E, an annular spring L, is attached. This spring has a tooth or projection *o*, attached to its most projecting part as shown clearly in Fig. 1, and said tooth is allowed in consequence of its shape to pass over the arms of the wheel E, when the drum is turned to wind the ropes or chains *l, l, m, m*, thereon, but the tooth catches against one of the arms of wheel E, if the drum be turned in the opposite direction.

The operation is as follows: The shaft D, is elevated so that the screw *c*, will be thrown in gear with the worm wheel *b*, the shaft being retained by the button *e*. The key *h*, is then applied to the shaft D, and the latter turned, motion being thereby communicated to the drum B, so that the ropes or chains *l, m*, will be wound thereon and the box J, elevated. When the box is fully elevated the shaft D, is depressed so that the screw *c*, will be thrown out of gear with the worm wheel *b*, and the weights K, then descend rotating the drum B, and the latter through the medium of the tooth *o*, on the spring L, giving motion to the wheel E, train of wheels *i*, and shaft F, the cam H, on the fly wheel G, imparting a reciprocating motion to the bar or shaft I, to which the machinery to be operated is connected. More or less weights may be used in the box J, according to the power required.

By having the ropes or chains *l, m*, attached to the drum B, as shown, the drum is relieved of friction in turning on shaft C, as the ropes or chains are wound on it, and the journals of shaft C, are also relieved of friction, when the device is in operation.

The invention has been practically tested and answers an excellent purpose for operating churns, washing machines, and other light machinery. Its adoption will save

much labor, and the cost of construction is but moderate.

I do not claim broadly, the operating of
5 churns, and washing machines by means of
a weight and clock mechanism irrespective
of the arrangement and combination herein
shown and described, but

I do claim as new, and desire to secure by
Letters Patent,

10 The drum B, placed loosely on the shaft
C, and having ropes or chains *l*, *m*, and a

weight or weights attached to it as shown,
in connection with the toothed spring L,
toothed wheel E, train of wheels *i*, fly wheel
G, and cam H, fitted between the friction 15
rollers *j*, of the shaft I, the whole being com-
bined and arranged to operate as and for
the purpose set forth.

WM. H. BAKER.

Witnesses:

W. B. BENSINGER,
MICHAEL BEARD.