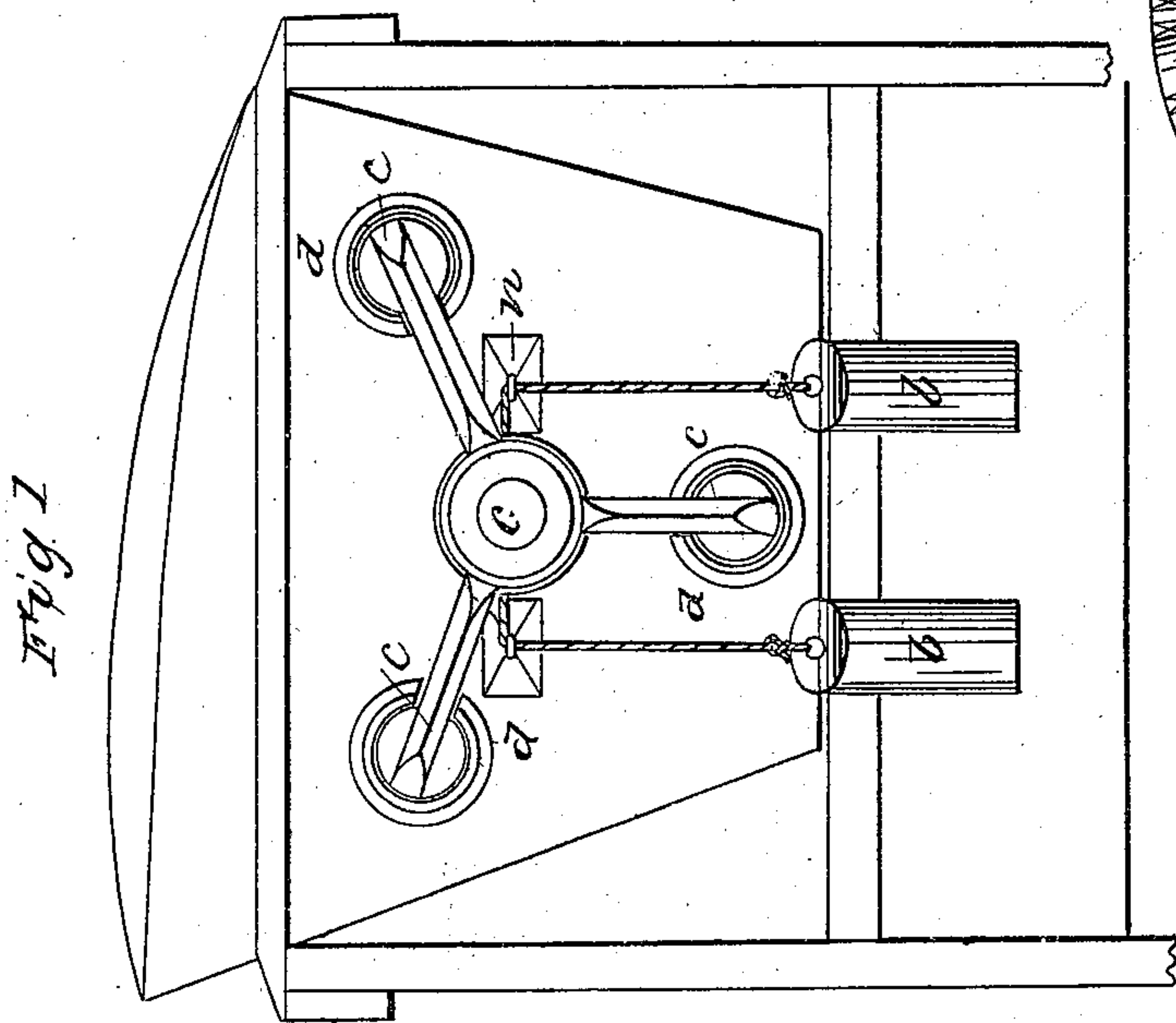
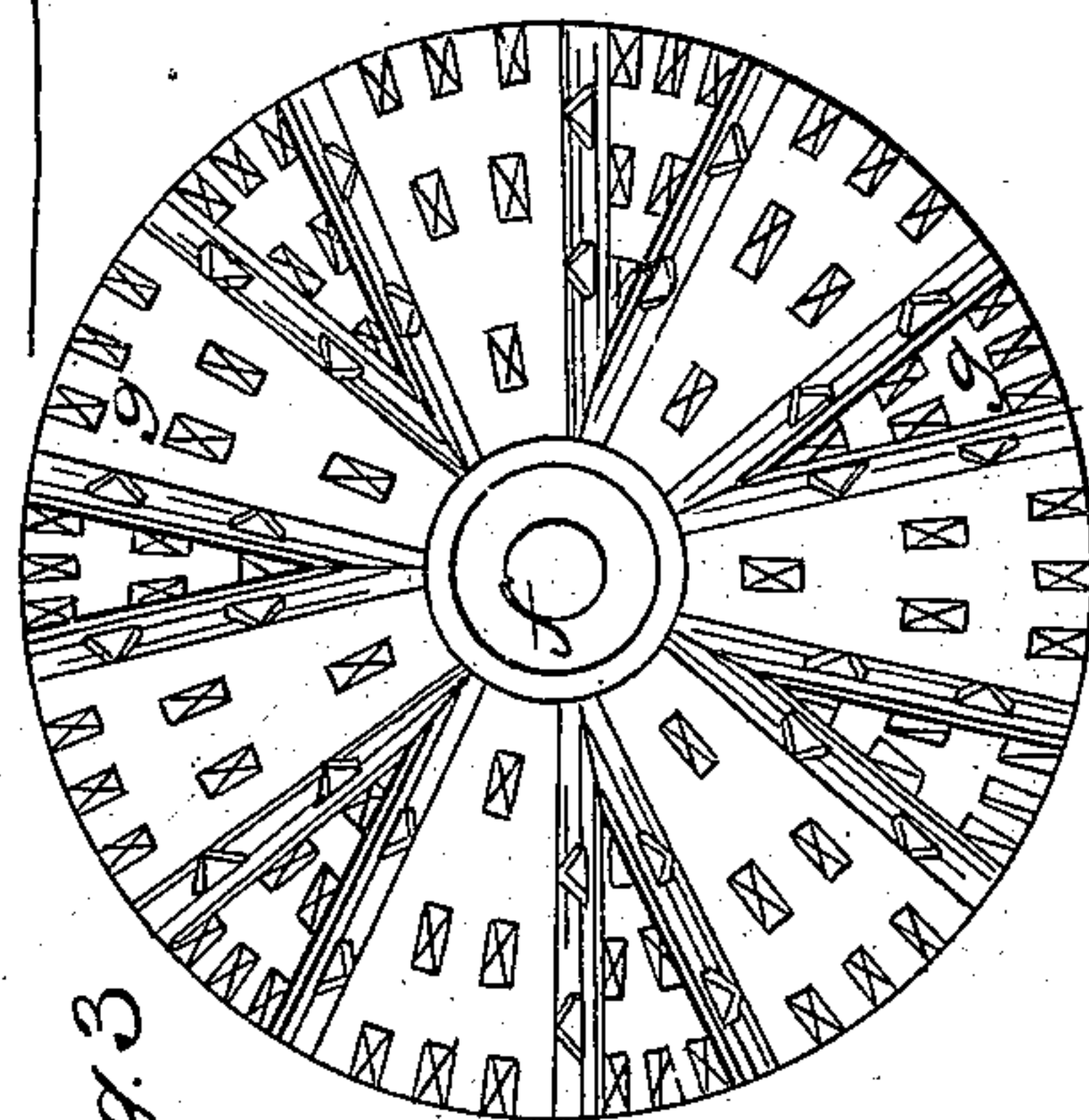
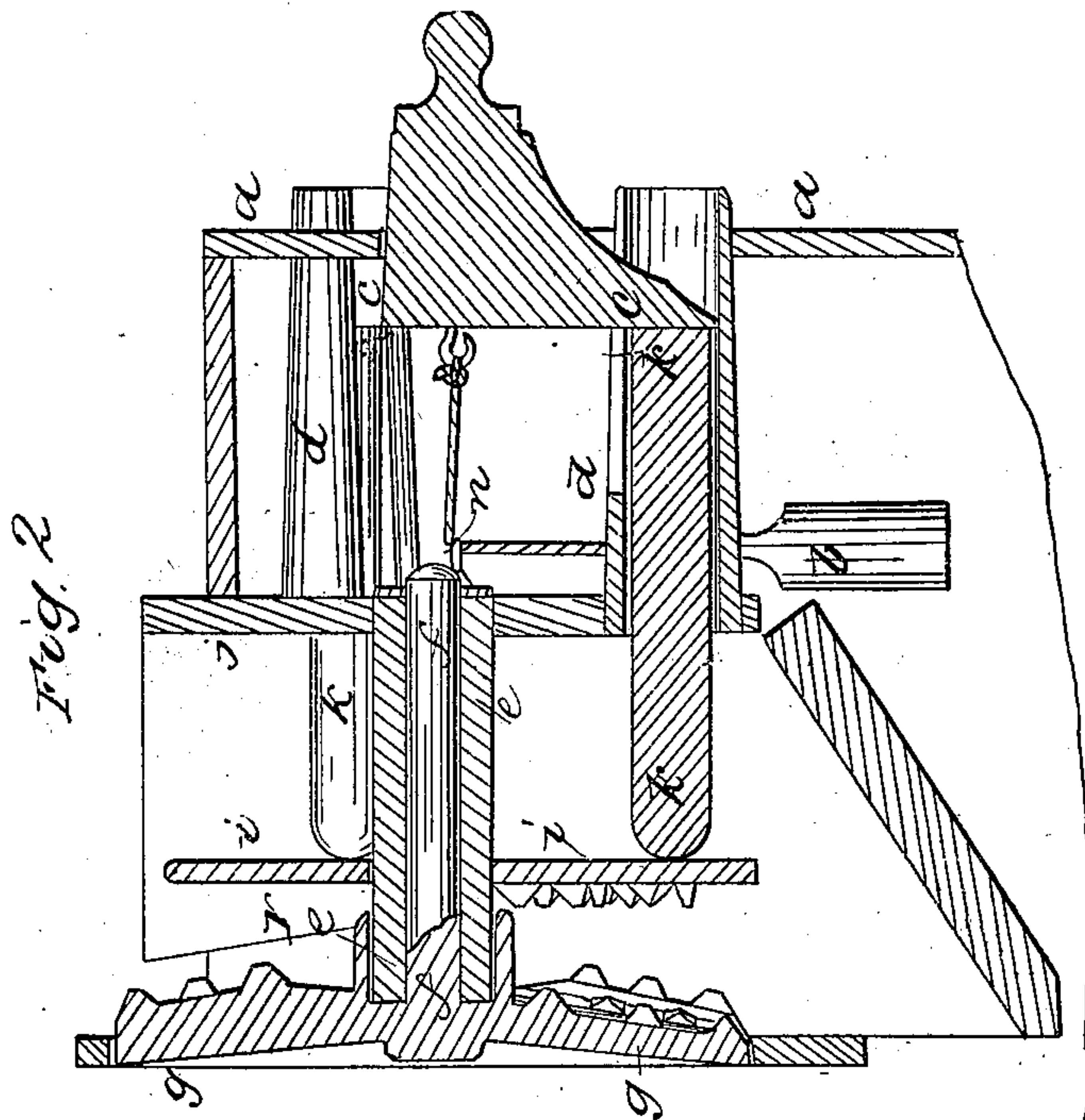


J. W. RICKER.

Corn Sheller.

No. 34,775.

Patented March 25, 1862.



witnesses
J. B. W. S. by
J. E. Fallon

Inventor
John W. Ricker

UNITED STATES PATENT OFFICE.

JOHN W. RICKER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. 34,775, dated March 25, 1862.

To all whom it may concern:

Be it known that I, JOHN W. RICKER, of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Corn-Shelling Machines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The corn-sheller upon which my improvement is based is that for which Letters Patent were granted January 3, 1860, and which are numbered 26,662.

My invention consists in the arrangement and combination, with a movable presser-plate, which operates in conjunction with a shelling disk or wheel, of pistons loosely fitting in stationary tubes and forced forward against and moving the presser-plate by weights acting through a follower, which is sustained and kept in position by said tubes, which are slotted to admit of the reciprocating movement of the follower; and it also consists in the peculiar surface given to the shelling-wheel, consisting of alternate elevations and depressions, both being provided with small projections or teeth.

Referring to the drawings, Figure 1 is a rear view of a sheller embodying my invention, the back board *a* of the frame being removed to show the weights *b b*, the follower *c*, and the slotted tubes *d*. Fig. 2 is a vertical section taken through the center of the shelling-wheel and its shaft, and Fig. 3 is a face view of the shelling-wheel.

i is the movable presser-plate, which fits loosely upon the tubular bearing *e*, in which the shaft *f* of the shelling-wheel *g* runs. The tubes *d* are secured to the center board *j*, and the pistons or rods *k*, fitting loosely within said tubes, bear against the back surface of *i*, the other ends of *k* being in contact with the follower *c*, which enters each of the tubes *d*, which are slotted to permit movement of the follower.

The forward movement of the follower is caused by the gravity of the weights *b*, which are secured to the follower by cords passing over rollers or through eyes *n*, so that the follower is made to move toward *g*, thereby impelling *i* in the same direction. The retrograde movement of the presser-plate and follower is caused by the action upon *i* of the ears of corn when operated on by rotation of *g*.

It will be seen that large or small ears will be pressed upon by *i*, in consequence of the freedom with which the presser-plate can be moved forward and backward and inclined on the tube *e* toward or from the wheel *g*.

In practice I have found that the grain is more completely and rapidly separated from the cobs when the surface of the shelling-wheel is broken up into inequalities of surface, or, in other words, where the surface of the wheel is composed of raised and depressed surfaces, alternately, the surfaces being studded with teeth, than when, as has heretofore been the case, the surface is uniform and studded with teeth. My formation of the surface of the wheel is fully illustrated by Figs. 2 and 3.

The rotation of the wheel causes the ears of corn to be thrown from the depressed surfaces toward the presser-plate, especially when the ears strike against the guard *r*, which action turns the ear and exposes a new part of it to the shelling action of the machine.

What I claim is—

1. The combination and arrangement of the presser-plate with the pistons, slotted guide-tubes, follower, and weights, all acting together substantially as set forth.

2. The formation of the surface of the shelling-wheel in alternate depressions and elevations, both studded with teeth, as shown and described.

JOHN W. RICKER.

Witnesses:

J. B. CROSBY,
J. E. FALLON.