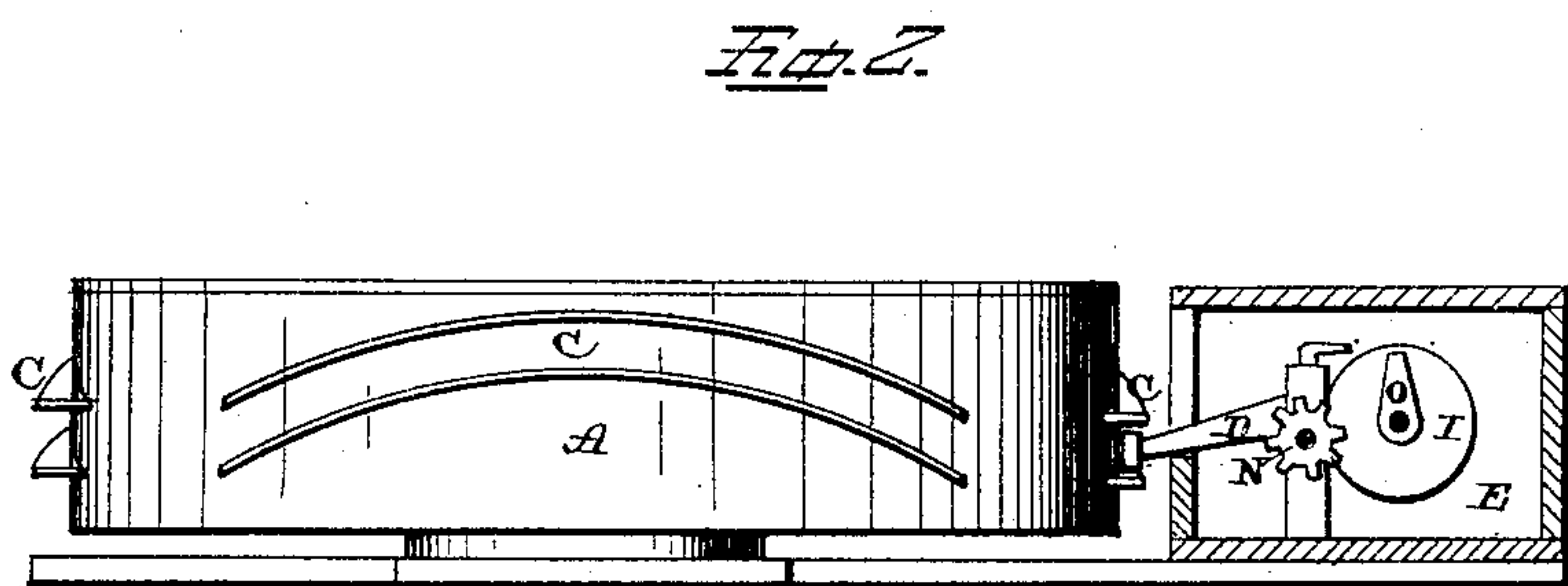
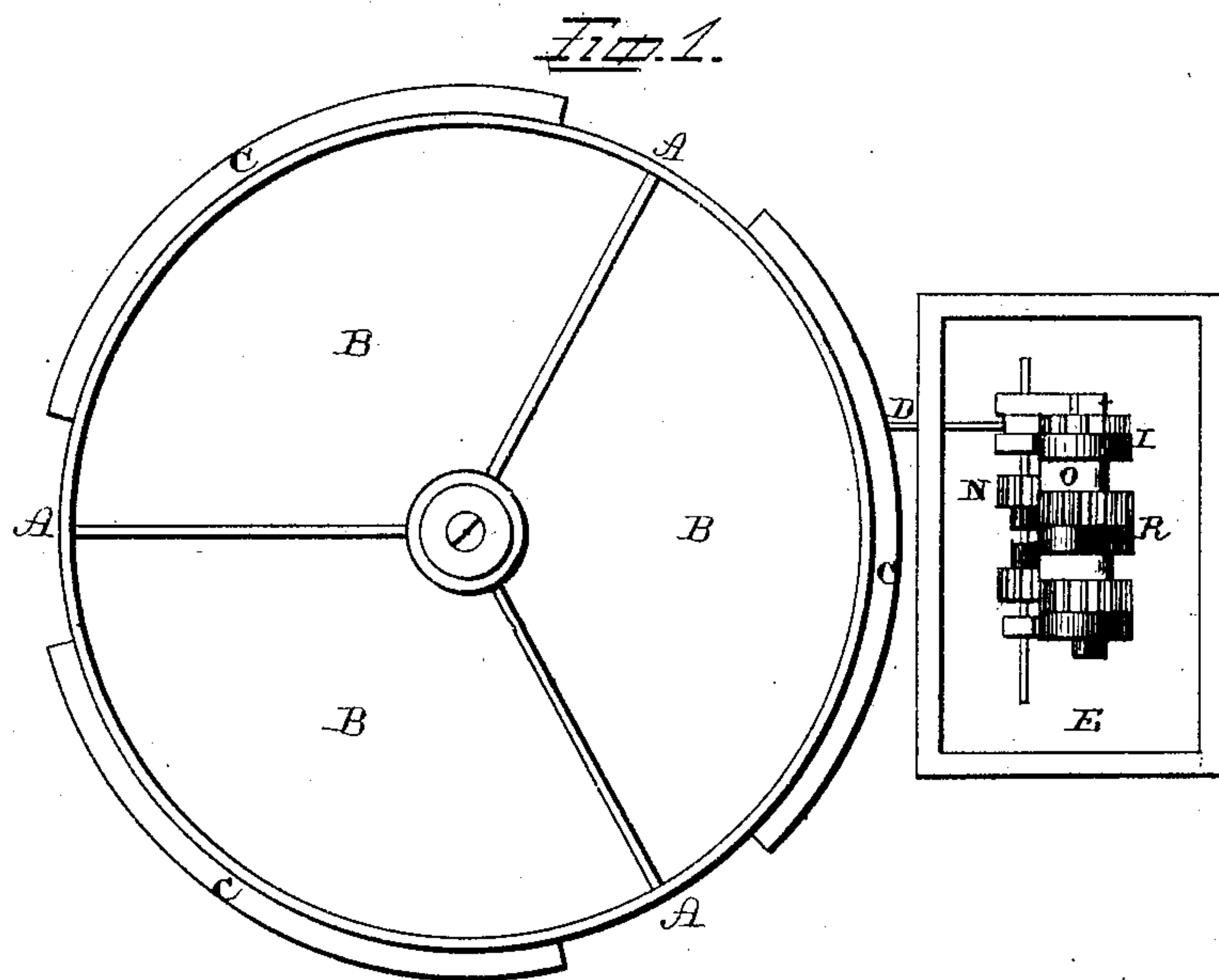


(No Model.)

R. G. BROWN.
Grain-Tally.

No. 227,409.

Patented May 11, 1880.



Witnesses=
W. W. Mortimer
C. H. Lehmann

Inventor
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per
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Att'y.

UNITED STATES PATENT OFFICE.

ROLLIN G. BROWN, OF DE WITT, IOWA.

GRAIN-TALLY.

SPECIFICATION forming part of Letters Patent No. 227,409, dated May 11, 1880.

Application filed March 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, ROLLIN G. BROWN, of De Witt, in the county of Clinton and State of Iowa, have invented certain new and useful
5 Improvements in Grain-Tallies; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being
10 had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in grain-tallies; and it consists in a revolving tray which is divided into compartments or
15 divisions, and which has a cam formed on its outer edge, corresponding to each one of the divisions of the tray, and which cams, as the tray revolves, serve to operate the counting mechanism.

20 It further consists in forming upon one side of the counting-wheels a projection to catch in the teeth of a pinion, which pinion is sufficiently wide to overlap and mesh with the adjoining wheel, whereby it is made to perform
25 a double function, as will be more fully described hereinafter.

The object of my invention is to provide a tally in the measuring of grain which shall operate all the same whether the tray is turned
30 to the right or to the left, and which shall be cheap and simple in construction, and always reliable in operation.

Figure 1 is a plan view of my invention with the front of the counting mechanism removed.
35 Fig. 2 is a side elevation of the same, partly in section.

A represents a revolving tray which is divided into three or more compartments, B. In each one of these compartments a measure is
40 placed, which is to be filled by the grain, and as one measure is filled from the hopper or spout the tray is revolved so as to bring another one under it. On the outer edge or circumference of the tray there are formed a
45 number of cams, C, which correspond in number to the divisions B, and which cams serve to operate the pivoted lever D, which projects from the side of the box E, containing the counting mechanism. The outer end of this
50 lever is provided with a friction-roller, and

catches in the cams formed in the side of the tray, so that as the tray is revolved the lever is given a reciprocating motion on its pivot. Secured to this lever, inside of the box, is a
55 suitable spring, which holds the end of the lever pressed constantly downward, so that after it has been released from the end of one cam it will be held in position to enter the end of the next succeeding cam, no matter in which
60 direction the tray may be turned. The inner end of this lever is formed like an escapement, and serves to turn the wheel I forward just one cog every time the lever is operated by one of the cams. Where it is intended to count
65 bushels this wheel will be provided with but ten teeth; but where half-bushels are to be counted the wheel will be provided with twenty cogs, as in the present instance. On the inner
70 side of this wheel there is formed a projection or tongue, O, which, as the wheel sweeps around, catches in the teeth of the pinion N, and for every revolution of this wheel I the pinion is
75 moved just one tooth. This pinion is made sufficiently wide so as to mesh with the second counting-wheel, R, which is provided with
80 teeth on its edge, as shown, and which pinion, as it is moved forward one tooth at every revolution of the wheel I, moves the wheel R forward one tooth also. This same construction
85 is continued on all of the other wheels of the counting mechanism, each one of the counting-wheels being provided with teeth to mesh with the pinion, and a projection to turn the pinion
90 one tooth forward at every revolution. These wheels, of course, represent tens, hundreds, thousands, and tens of thousands, and can be increased to any desired number.

The counting-wheels are all placed side by side upon a single pivot, and the pinions are placed upon a second pivot, which extends
95 parallel therewith.

By thus making the pinions sufficiently wide to be operated by one wheel and to operate a second wheel at the same time, the number of parts are greatly reduced and the cost of the
95 mechanism cheapened accordingly.

Having thus described my invention, I claim—

1. The combination of a revolving tray divided into compartments B, and having cams 100

C formed upon its outer edge, there being one cam for each one of the compartments, with a counting mechanism, substantially as shown.

2. The combination of the revolving tray,
5 divided into compartments B, and a cam, C, formed on its outer edge for each compartment, with the lever D and a counting mechanism, the parts being so constructed that the mechanism is operated by each cam, whether the

tray is turned to the right or left, substantially as described. 10

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of March, 1880.

ROLLIN G. BROWN.

Witnesses:

W. R. WARD,
C. WATERS.