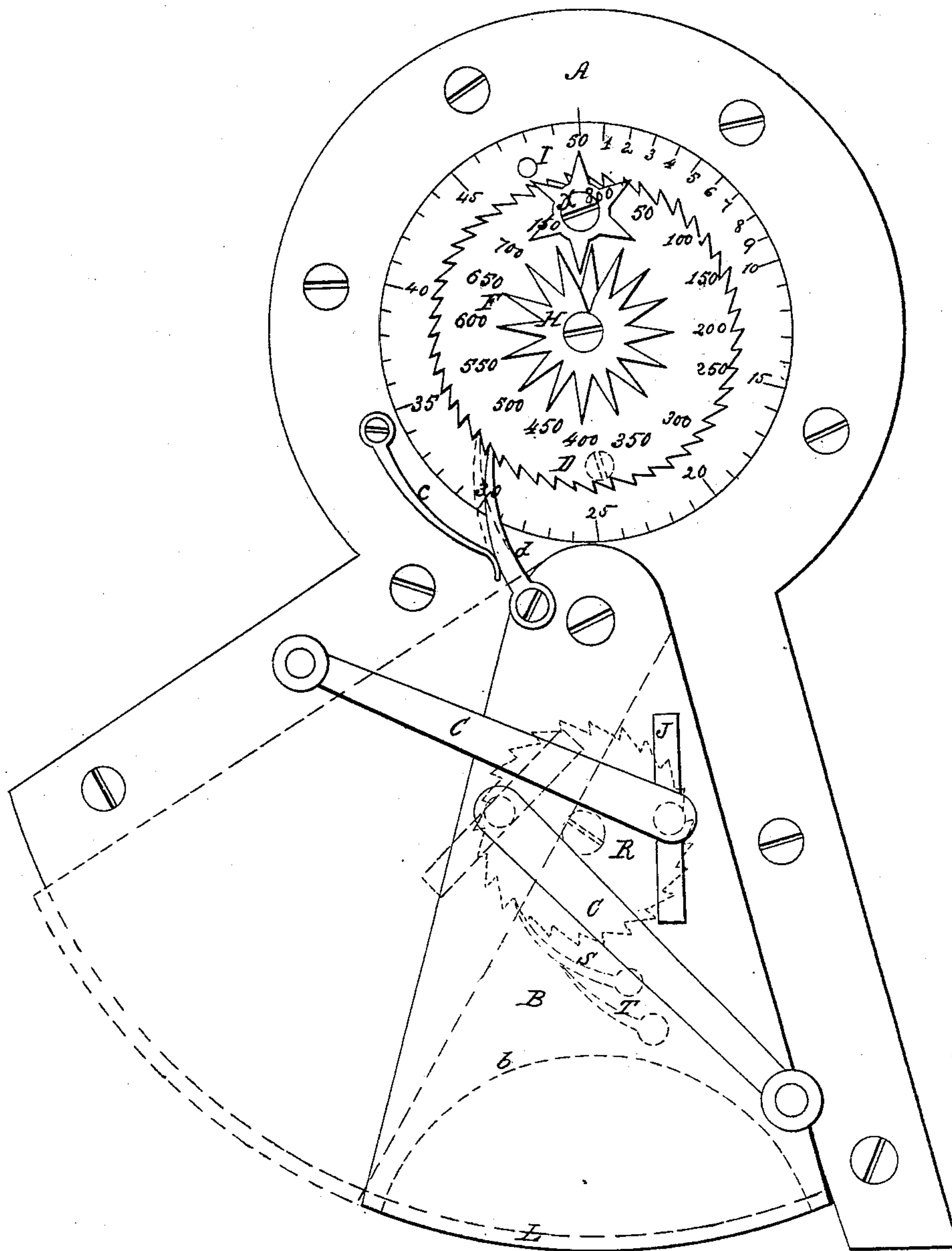


S. HUDSON.

Tallying Machine for Measured Grain.

No. 45,829.

Patented Jan. 10, 1865.



Witnesses:

Wm A. Ames
A. C. Robinson

Inventor:

Sidney Hudson

UNITED STATES PATENT OFFICE.

SIDNEY HUDSON, OF MILFORD, MICHIGAN.

IMPROVEMENT IN TALLYING-MACHINES FOR MEASURED GRAIN.

Specification forming part of Letters Patent No. 45,829, dated January 10, 1865.

To all whom it may concern:

Be it known that I, SIDNEY HUDSON, of Milford, in the county of Oakland and State of Michigan, have invented a new and useful tally-machine, for keeping a correct account of measured grain and other articles as required, and by such means as shall be certain in its operation; and I do hereby declare that the following is 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, in which—

Figure 1 is a front view of my invention.

A represents a metal plate, to which the machinery is attached, and by which it is fastened to a grain hopper or box, which box has a circular bottom, with a discharge-orifice through it. Said orifice is closed by a circular slide, L, as represented by dotted lines at the lower edge of the figure. Slide L is permanently attached to a swinging plate, B, which is attached at the upper end to plate A. Under the center of plate B works a small ratchet-wheel, R, which is held from turning back by dog S and spring T, all three being attached to plate A, as indicated by dotted lines (marked R S T) on plate B. Near the edge of ratchet R, and through plate B, is an oblong slot, J, through which the journal of crank C passes and connects with ratchet R, thus forming a double crank. Near the working-point of plate B, dog d and spring c work against a larger ratchet-wheel, E, which has fifty notches around it. Wheel E has a circle, e, of points and numbers, surrounding it, indicating the points made by the notches on wheel E. On the back of wheel E there are an equal number of notches, matching those on the edge, into which a blind spring, D, works, being attached to plate A, thus preventing wheel E from turning back. On the face of wheel E, and near one edge, a small wheel, X, with six cogs, is attached, one cog at a time extending farther over circle e, which answers for an index to wheel E. The cogs on the opposite side of wheel X mesh in gear with cogs on a wheel, H, which works over the center of E, and has sixteen cogs, one of which, F, acts as index,

pointing to the figures stamped on the face of wheel E, which increases from fifty to eight hundred.

I is a stop on plate A, situated near the upper edge of wheel E.

From the above description the operation will be readily seen. By turning crank C to the right, plate B and slide L are moved to the left, thus opening the discharge-orifice, as indicated by crank and plate in red outlines. The motion of plate B, actuating dog d, moves ratchet-wheel E one notch, and by turning crank C around the discharge is again closed. At every revolution of the crank ratchet E and wheel X, are moved forward one notch. When X comes in contact with stop I the cog is held till X turns on its axis sufficient to let it pass, throwing another cog out, which action necessarily turns wheel H forward on wheel E, leaving index F at fifty. One revolution of center wheel, H, tallies eight hundred. The discharge may be enlarged by an aperture indicated by dotted circle b on plate B. If higher, numbers are desired more cogs must be employed in constructing the machine—the size and proportion of which may varied at pleasure.

I do not claim, broadly, the discovery of a double-acting rotary registering apparatus, for I am aware that such have been used, although in a manner crude, unsubstantial, and uncertain; but,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the several parts which produce the result in the simple, concise, and effective form described.

2. The circular hopper-slide L, as attached to oscillating plate B, which works dog d, as described, also crank C, the journal of which passes through a slot in plate B and is attached near the edge to ratchet R, which is held from turning back by dog s, which prevents slide L being closed without tallying, when the parts are arranged to operate as and for the purpose described. This combination will work several varieties of registers.

3 The combination of the ratchet-wheel E

with cog-wheel H, which works over the center of E, also cog-wheel α , which gears with H and works near the edge of E, one cog at a time, extending beyond the edge of E, which at every revolution of E comes in contact with stop I, by which wheels X and H are moved forward one point on their respective dials.

4. Spring D, which is used to keep the machinery in place, when arranged in combination as and for the purpose herein shown and described.

SIDNEY HUDSON.

Witnesses:

WM. A. AMES,
A. G. ROBINSON.