

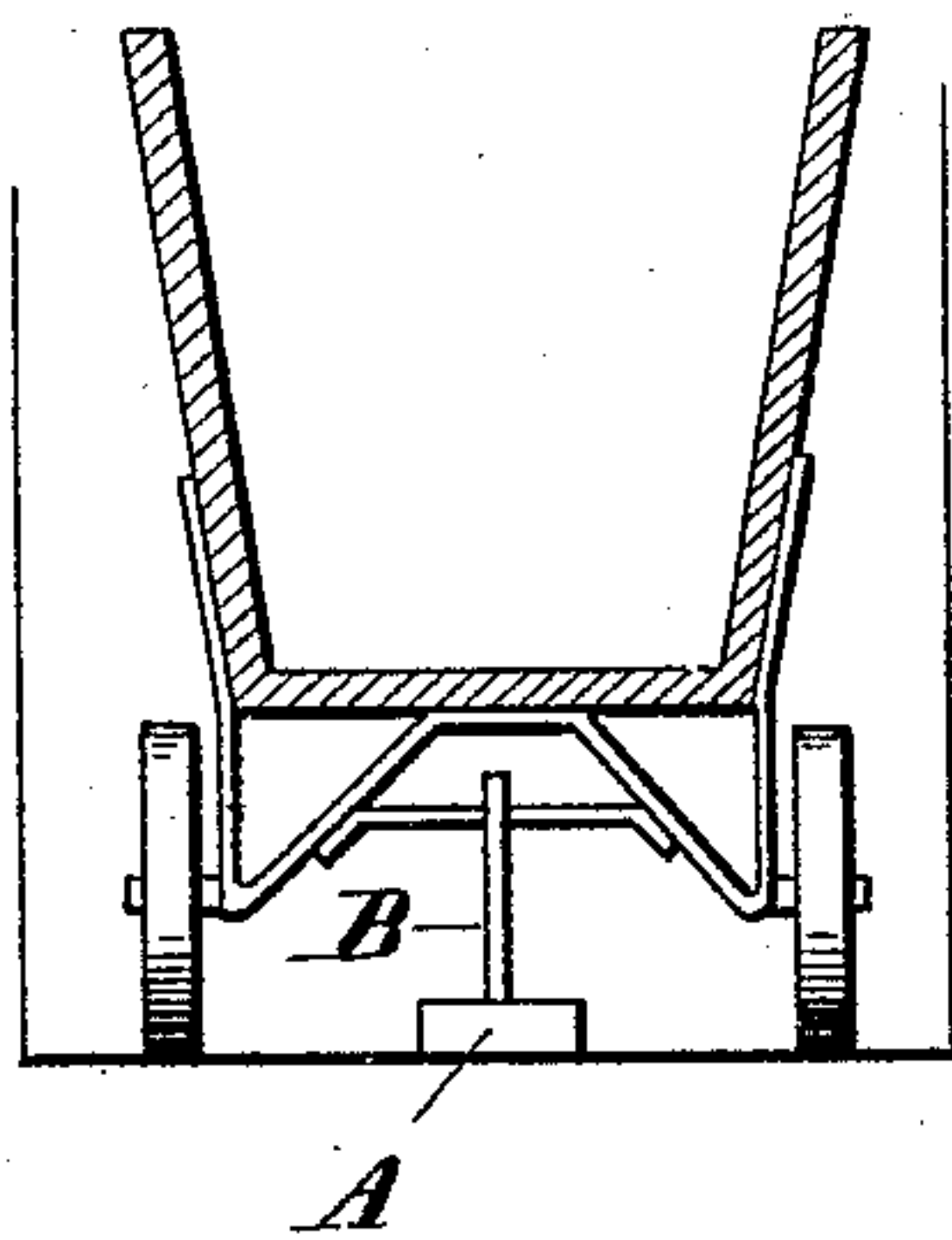
(No Model.)

S. R. WHEELER.  
GRAIN TALLY AND REGISTER.

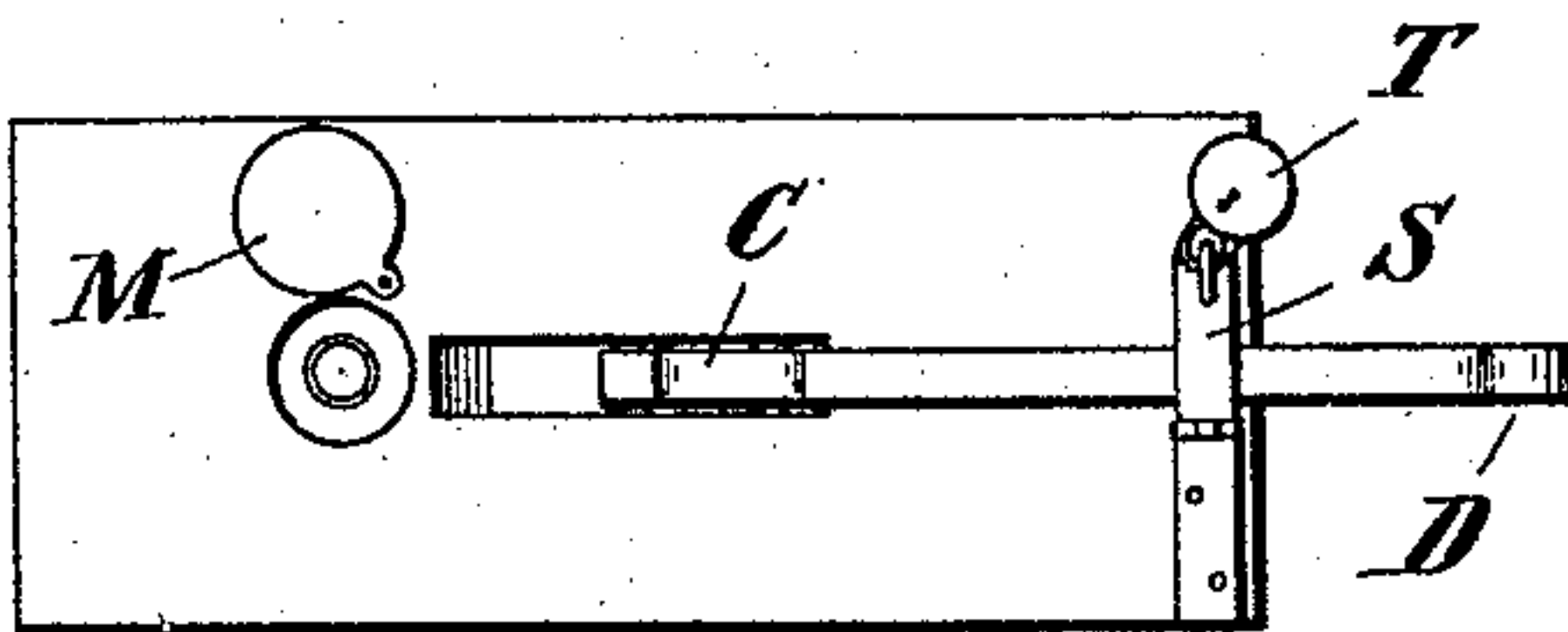
No. 441,912.

Patented Dec. 2, 1890.

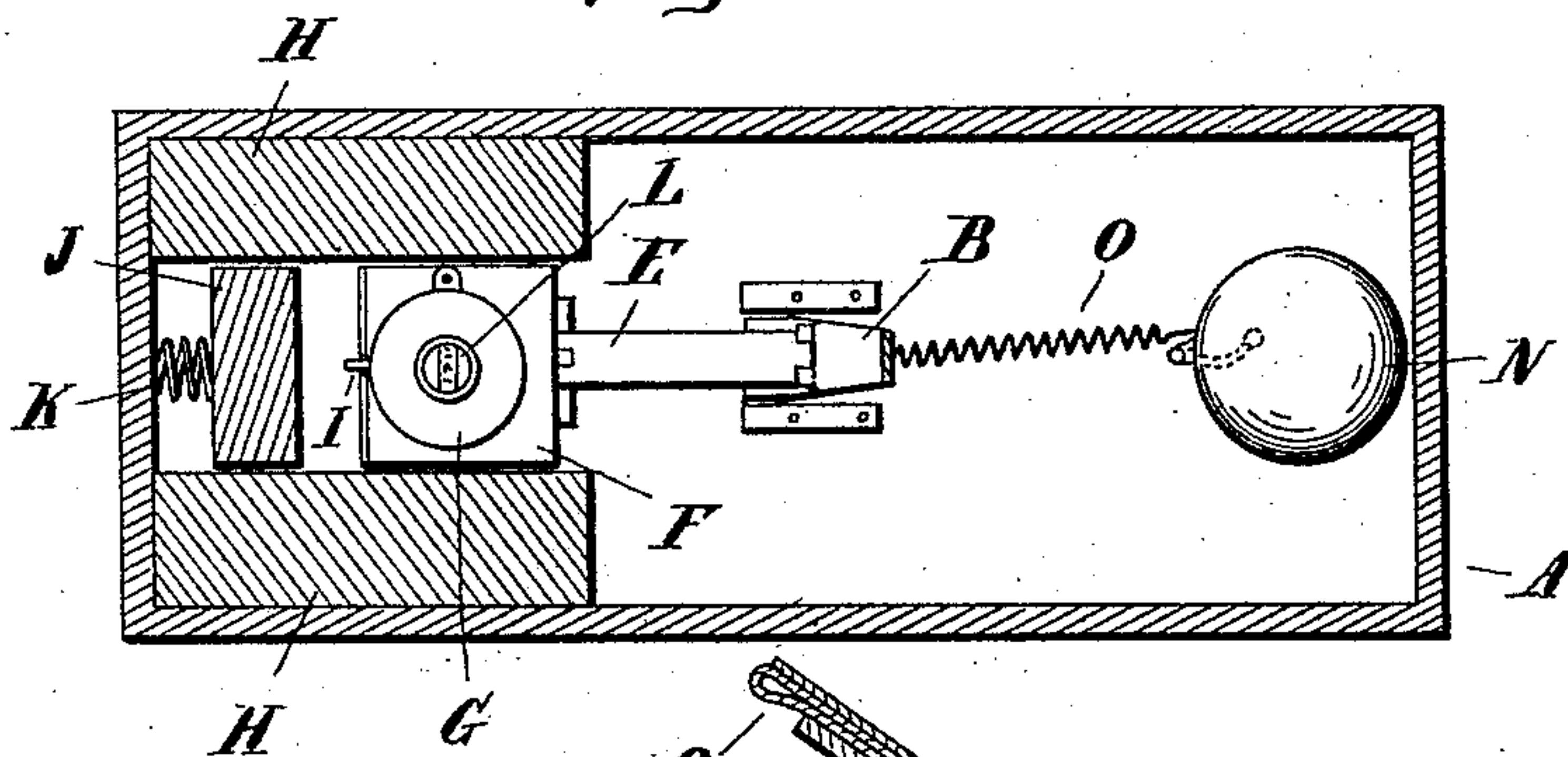
*Fig. 4*



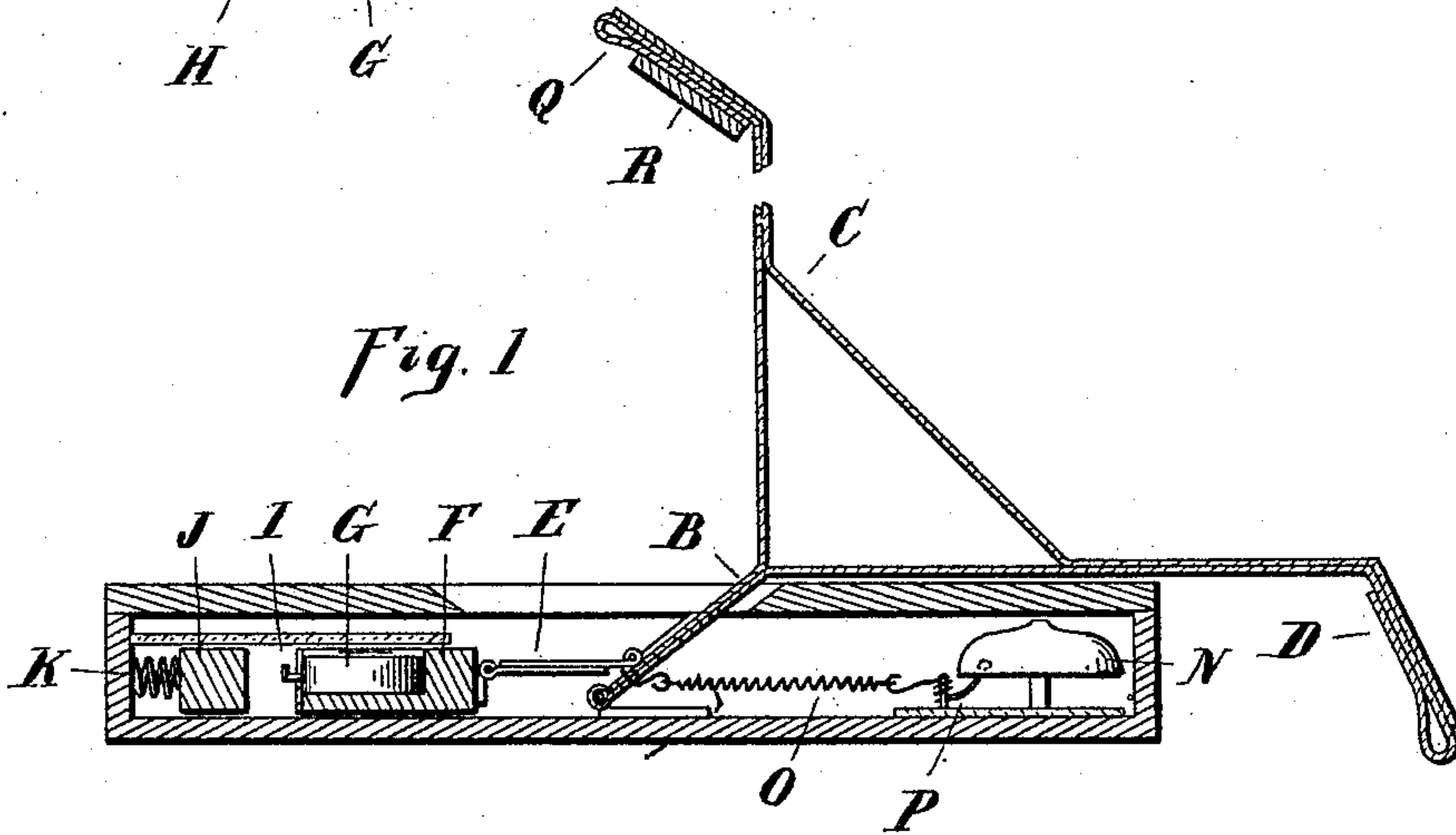
*Fig. 3*



*Fig. 2*



*Fig. 1*



Witnesses:

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# UNITED STATES PATENT OFFICE.

SAMUEL R. WHEELER, OF DETROIT, MICHIGAN.

## GRAIN TALLY AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 441,912, dated December 2, 1890.

Application filed June 23, 1890. Serial No. 356,379. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL R. WHEELER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Grain Tallies and Registers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in automatic grain-tally registers; and the invention consists in the peculiar construction of an arm or lever placed in the line of travel of a car adapted to be operated at each trip, carrying a register whereby the number of trips of the car is accurately given and an alarm mechanism operated at each movement of the tally-arm.

The invention further consists of the peculiar construction of the tally-arm and a lock whereby the movement of the car may be prevented, if desired; further, in the peculiar construction, arrangement, and operation of the various parts, all as more fully herein-after described, and shown in the accompanying drawings, in which—

Figure 1 is a vertical central longitudinal section through my improved device. Fig. 2 is a sectional plan view thereof with the top removed, showing the operating mechanism. Fig. 3 is a top plan view of the device as in use. Fig. 4 is an end elevation showing the car and tally-arm in position to be struck thereby.

A is a suitable casting adapted to hold the operating mechanism. Centrally of this casting is pivotally secured the tally-arm B, which extends through the top of the casing in a suitable slot formed therein, and is bifurcated to form the two actuated arms C and D, arranged at substantially right angles to each other.

The lever B has hinged to its forward side the connecting-bar E, which at its forward end is hinged to the sliding block F, which carries a totalizing-register G. This block slides in suitable guides formed by the side pieces or blocks H. The register has an actuating-arm I extending from its forward side, which, in the forward movement of the register, is adapted to strike against the block J, which is slidingly secured between the blocks

H, and is backed by a spring K. The register is of any suitable construction, and is provided at the top with a suitable aperture I, through which the amount registered can be inspected.

The frame of the machine is correspondingly apertured, and provided with a cover M to open and close the aperture, as desired.

Within the casing on the opposite side of the lever B is secured a bell or alarm N, of any suitable description, connected with the lever B in any suitable manner. I have shown in the drawings a spring O as the connection which, upon the movement of the lever B, will cause the hammer P to strike the bell and sound the alarm. The peculiar construction of this mechanism is immaterial. Any suitable device may be used.

My tally thus constructed is placed upon or sunk into the floor, either between the rails of a track upon which a grain-car or other car is designed to be moved, or in a door through which such car must be passed in order to unload it, the arms C in the normal position of the device extending upwardly, as shown in Fig. 1. As the car or truck passes over the tally some portion of the truck—such as the axle—will strike against the arm C and cause it to move, carrying with it the lever B, and turn it upon its pivot until the arm Q thereof strikes upon the floor and prevents further movement, a suitable counter-weight R being provided to insure the full stroke of this arm. The movement of the lever B imparts motion to the connecting-bar E and to the block F, carrying the register G, the arm of which strikes against the block J and actuates the register. In order that no damage may come to the registering mechanism through too sharp or too quick a blow, I secure the block J yieldingly in position by means of the spring K. This also has the effect to make certain the actuation of the register at each stroke, as the pressure of the spring is exerted against the arm I continuously until the register is withdrawn for another operation. This spring K also acts as a yielding bearing for the lever B and prevents any damage to any of the parts from too hard a blow imparted from the car. The movement of the lever B simultaneously actuates the alarm mechanism. The return of



the car in the opposite direction will strike the arm D, which will be in a vertical position when the arm C is in the horizontal—that is, after it has been actuated. The return of the car will withdraw the register G, allowing the arm I to be extended and ready for the next operation, and also returning the alarm mechanism to its normal position. When in this position, if it is desired to prevent the operation of the device, I provide a suitable hasp S and lock T for locking down the arm D, which will form a stop of the arm C in the path of the car, preventing its being moved past the register.

My device is especially intended for use in grain-elevators where the grain is taken in small car-loads from the bins to be delivered into the cars, each car or truck loaded being separately weighed.

It frequently happens at the smaller stations where the depot-master has charge of all matters, both shipping and receiving, that he may be called to other parts of the depot or track while grain is being loaded or unloaded, and should any truck-loads be moved across the register during his absence he will be apprised of the fact by the alarm, or if the amounts are not properly put down by the weigh-master he can readily ascertain whether the number of loads tally on the weigh-master's sheet with the register or not, and thus detect the error.

This device applied in actual use has been found to prove a most effectual check in grain-weights between the sending and receiving stations, caused by carelessness in entering the car-loads as they are delivered to the car, which has heretofore proved an almost endless source of trouble and expense.

What I claim as my invention is—

1. In a grain-tally, the combination, with the actuating-lever, of a register operated thereby, and two arms adapted to be struck by

the passing car, one of said arms adapted to actuate the register and the other to return the parts to their initial position, substantially as described.

2. In a grain-tally, the combination, with the actuating-lever, of a register operated thereby, and means for reciprocating said lever in opposite directions by the movement of a passing car or truck, substantially as described.

3. In a grain-tally, the combination, with the actuating-lever, of a register and an alarm mechanism operated thereby, and means for reciprocating said lever in opposite directions by the movement of a passing car or truck, substantially as described.

4. In a grain-tally, the combination, with the actuating-lever and means for operating the same by the movement of a car or truck, of a register slidingly secured in the frame and carried by the actuating-lever, substantially as described.

5. In a grain-tally, the combination, with the actuating-lever and means for actuating the same by the movement of a passing car or truck, of a register slidingly secured in the frame and carried by the actuating-lever, and a yielding bearing for said register, substantially as described.

6. In a grain-tally, the combination, with the actuating-lever, and means for actuating the same by the movement of a passing car or truck, of the rod E, the register F, pivotally secured together, the operating-arm I, the block J, and the spring K, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL R. WHEELER.

Witnesses:

M. B. O'DOHERTY,  
P. M. HULBERT.