E. M. PHILLIPPE.

REGISTERING MECHANISM.

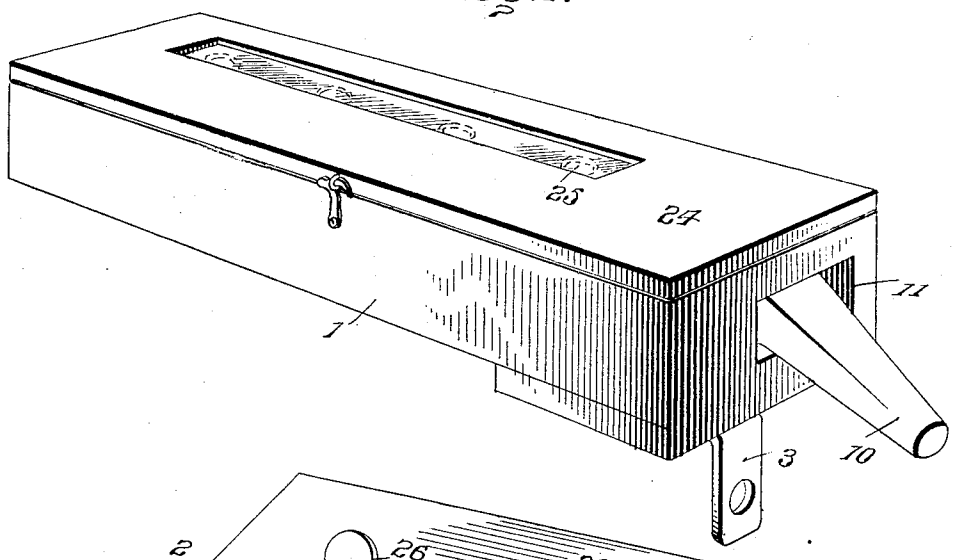
APPLICATION FILED OCT. 8, 1907.

904,084.

Patented Nov. 17, 1908.

2 SHEETS—SHEET 1.

Fig. 1.



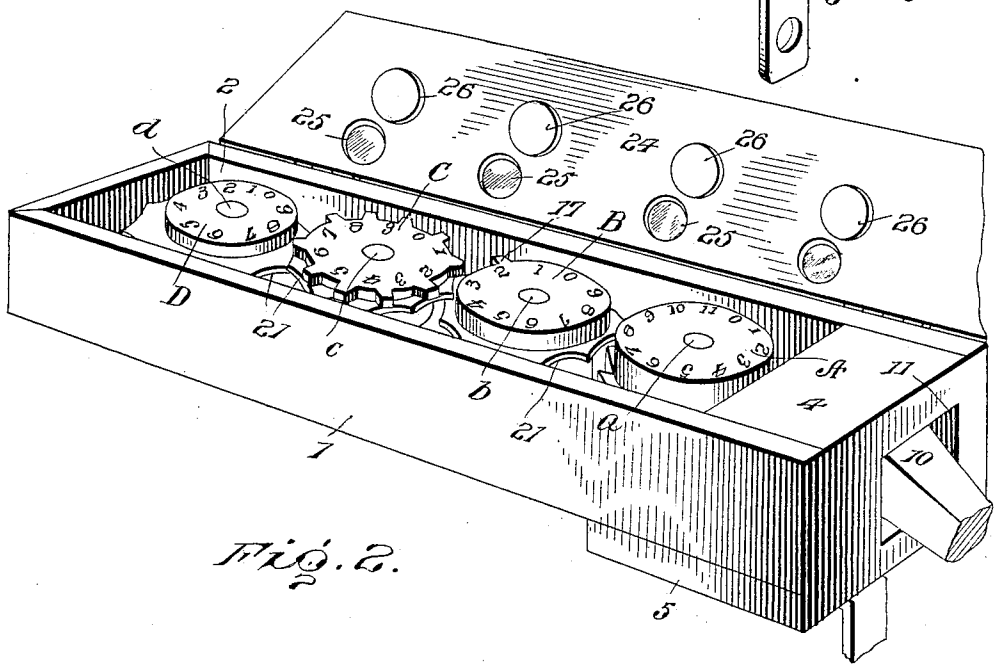


Fig. 2.

Inventor

E. Marion Phillippe

Witnesses

By Rhodes, Kelley, Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

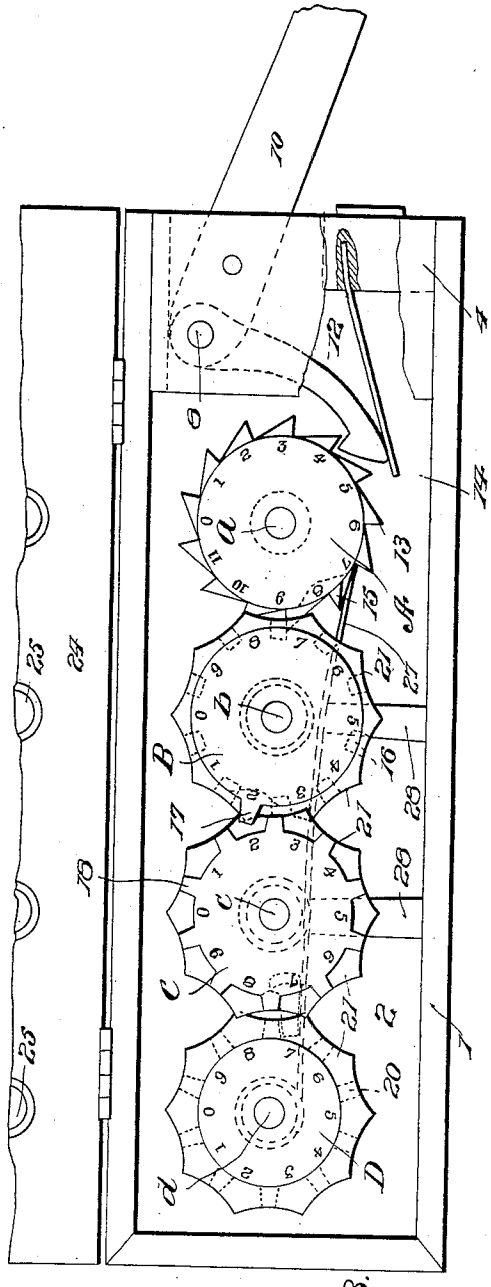


Fig. 3.

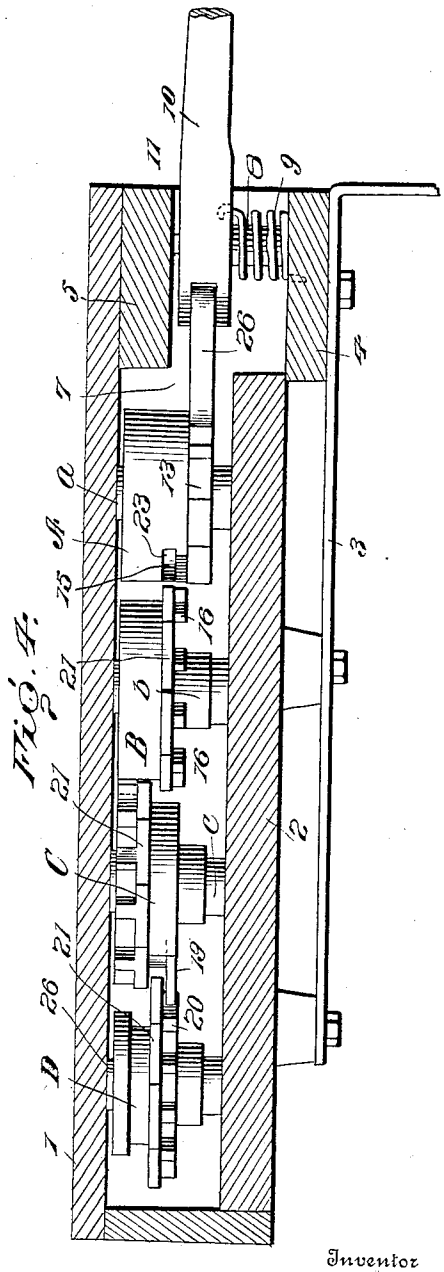


Fig. 4.

Witnesses

W. Inwine

W. T. Woodson

Inventor

E. Marion Phillippe

By R. H. A. B. Lacey, Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EPHRIAM M. PHILLIPPE, OF RURAL RETREAT, VIRGINIA.

REGISTERING MECHANISM.

No. 904,084. Specification of Letters Patent. Patented Nov. 17, 1908.

Application filed October 8, 1907. Serial No. 396,468.

To all whom it may concern:

Be it known that I, EPHRIAM M. PHILLIPPE, citizen of the United States, residing at Rural Retreat, in the county of Wythe and State of Virginia, have invented certain new and useful Improvements in Registering Mechanisms, of which the following is a specification.

This invention contemplates certain new and useful improvements in registering mechanism and the invention relates particularly to a tally device or register designed to be attached to a twine binder so as to automatically count and register the sheaves of grain by the dozens, tens of dozens, and hundreds of dozens.

The invention has for its object a simple, durable and efficient construction of mechanism of this character which will be accurate and positive in its action so as to insure a proper count. And the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and point out the novel details in the appended claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of my improved registering mechanism; Fig. 2 is a similar view thereof with the front of the casing raised or swung backwardly; Fig. 3 is a face view looking into the casing; and, Fig. 4 is a horizontal sectional view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

My invention comprises a box or casing 1 of any desired material, size and shape, provided with a back 2 to which the strap or bracket 3 is secured so as to attach the device to the binder. The casing 1 is provided with front and rear plates 4 and 5 forming a compartment 6 at one end of the casing, said compartment communicating with the main interior of the box or casing by means of the opening 7 in front of the back 2. A shaft or axis 8 is secured in the end compartment 6 between the front and rear end plates 4 and 5. A coil spring 9 encircles the shaft 8 and is secured at one end thereto or to the back of the casing, and at its other end to the handle 10 which extends out through an end slot 11 and which is mounted to rock intermediate of its ends on the shaft and which is designed to be actuated, or make one stroke each time the binder discharges a bundle. The inner end of the handle 10 is forked as shown and a pull pawl 12 is swung between the members of the fork and depends loosely from the inner end of the handle, said pawl being designed for intermittent engagement with the teeth 13 of a wheel A mounted on a stub shaft *a* projecting forwardly from the back 2 of the casing. A spring plate 14 is secured at one end in the end compartment 6 of the casing and projects through the opening 7 into the main compartment thereof below the toothed portion of the wheel A, and the pawl 12, in its downward movement after engagement with one tooth and preparatory to engagement with the next tooth of the wheel, slides downwardly and inwardly on said spring plate which thereby directs the pawl towards the adjacent wheel A, the said plate yielding sufficiently after the free end of the pawl has engaged the wheel to allow the hook or nose of the pawl to ride past the said next tooth, the said plate then springing or snapping the pawl into operative engagement with such tooth for a succeeding actuation of the wheel as the pawl is pulled upwardly and outwardly by the rocking of the handle 10 under the tension of the coil spring 9.

The wheel A is provided with a single tappet 15 designed at the successive revolutions of the wheel to engage the lugs 16 of another wheel B mounted on a stub shaft *b*. This latter wheel B is in turn formed with a tappet 17 adapted to engage the lugs 18 of a third wheel C, journaled on the stub shaft *c*. The wheel C is in turn provided with a tappet 19 adapted to engage lugs 20 of a fourth wheel D mounted on a stub shaft *d*.

In the present embodiment of the invention, it is designed that the first wheel (A) shall register a dozen of bundles. It is therefore formed with twelve teeth and on its outer face displays the graduations or numbers from one up to eleven and zero. The wheel B is intended to register the dozens and is actuated one tooth or lug at every revolution of the wheel A. The wheel B contains graduations from one to ten, and in a similar manner the wheels C and D contain graduations from one to ten and are each in turn rotated a distance of one graduation at each complete revolution of the wheels B and C, respectively, so that it will

be understood that the wheel A will register the bundles of grain up to a dozen, or any number less than a dozen, the wheel C the tens-of-dozens, and the wheel D the hundreds-of-dozens.

In order to positively prevent the rotation of the respective wheels until the proper time when their lugs are engaged by the tappets of the other wheels, each of the wheels B, C and D is formed with peripheral scallops 21 designed to bear against the circular periphery of the next adjacent wheel, and each of the wheels A, B and C is provided with a recess 23 in contiguity to its tappet, so that the scalloped wheels will be permitted to turn by the scallops passing through the recesses, when positively moved by the tappets. But, obviously, such wheels can not turn at any other time, as the points of the scallops would bind against the periphery of the next adjacent wheel.

The front 24 of the casing is preferably hinged to the top thereof and is held closed by a hook or any other fastening device and said front or door is provided with sight openings 25 in registry with the graduations of the respective wheels A, B, C and D. Disks 26 are secured to the inner wall of the front or door 24 in registry with the ends of the stub shafts *a*, *b*, *c* and *d*, and are designed to abut against the outer ends of said shafts and extend over the respective wheels, so as to secure the wheels in place. By this arrangement, it is obvious that by merely swinging the door open, said wheels may be removed, as they are merely held in place by the disks 26 secured to the front or door 24.

In order to hold the ratchet wheel A against turning in a backward direction, I provide the spring detent 27 which is preferably in the form of a plate or leaf spring and which is secured in place, preferably, by two blocks 28 fastened to the back of the casing 1 and holding the intermediate portion of the spring detent between their upper ends and the stub shafts *b* and *c*. The rear end of the plate spring detent 27 extends underneath the stub shaft *d*, while the opposite end is free, and is designed to enter the spaces between the ratchet teeth of the wheel A and snap over said teeth in succession as the pawl turns said wheel, while at the same time, it is obvious that this end of the spring will effectually prevent the wheel from turning backwardly.

Having thus described the invention, what is claimed as new is:

An apparatus of the character described, comprising a casing provided with an end compartment and separated from the main interior of the casing, a back, and an opening leading from said compartment to the main interior of the casing in front of the back, a transverse shaft mounted in said end compartment, a handle fulcrumed intermediate of its ends on said shaft and held stationary at one end having its other end secured to the handle, a pawl loosely mounted and suspended from the inner end of the handle, a spring plate rigidly secured at one end in the casing and in the end compartment thereof and projecting inwardly through said opening, the inner end of said spring plate being free and susceptible of being depressed, the pawl being designed to slide downwardly and inwardly upon said plate whereby the lower free end of the pawl is forced inwardly as the pawl moves downwardly, and a wheel is provided with a ratchet designed for engagement with said pawl, the spring being arranged to direct the pawl into engagement with the ratchet wheel, as and for the purpose set forth.

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

EPHRIAM M. PHILLIPPE. [L. S.]

Witnesses:
M. E. MYERS,
C. M. HANNA.