May 8, 1923. 1,454,614

H. ALTHAUS ET AL

COUNTER AND REGISTER

Filed Sept. 23, 1921

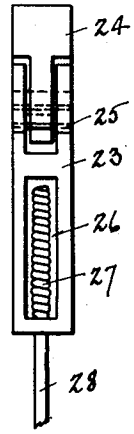


Fig. 3.

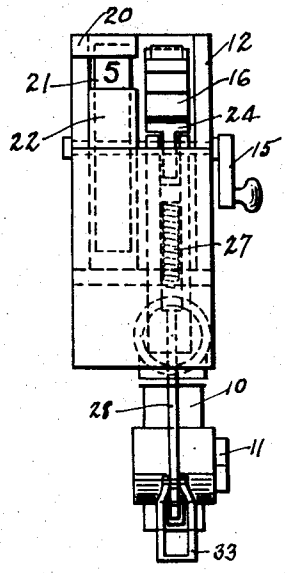


Fig. 1.

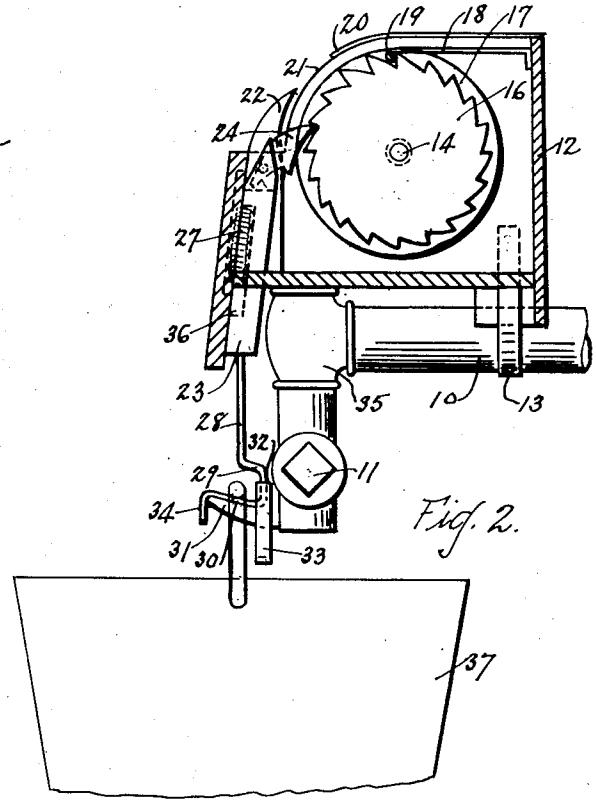


Fig. 2.

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UNITED STATES PATENT OFFICE.

HEINRICH ALTHAUS AND JOHAN FANGMANN, OF DYERSVILLE, IOWA.

COUNTER AND REGISTER.

Application filed September 23, 1921. Serial No. 502,829.

To all whom it may concern:

Be it known that I, HEINRICH ALTHAUS, a citizen of United States, residing at Dyersville, county of Dubuque, and State of Iowa, and I, JOHAN FANGMANN, a citizen of United States, residing at Dyersville, county of Dubuque, and State of Iowa, have invented certain new and useful Improvements in Counters and Registers, of which the following is a specification.

This invention relates to improvements in counters and registers, particularly to apparatus registering the number of buckets of gasoline or other fluid matter taken from a tank, tank wagon or gasoline truck, etc.

It is the principal object of this invention to provide a device of this character which automatically counts and registers the number of buckets of a predetermined capacity delivered from a gasoline tank, delivery wagon on the like.

A further object of the invention is the provision of a device of this character which is extremely simple and therefore inexpensive, which can easily be attached to the delivery nozzles of tank, tank wagons or the like, and which works automatically with great precision so that no mistake in the number of gallons delivered can be made.

These and other like objects will become more fully apparent as the description proceeds and will then be specifically pointed out in the appended claim.

In the accompanying drawing, forming a material part of this disclosure:

Figure 1 is an end view of a device constructed according to the present invention, and

Figure 2 is a side view thereof partly in section the device being shown in position on the delivery nozzle of a tank, tank wagon or the like.

Figure 3 is a detail view of an operating rod and finger.

The delivery nozzle 10 of a tank, tank wagon or the like for delivering gasoline or other similar fluids, which is controlled by a valve 11 has attached thereto a housing or casing 12 by means of bands 13 or any similar suitable fastening means.

Within the casing 12 is journaled in the side walls thereof a transverse shaft 14 projecting to the outside of the casing and carrying at its extreme outer end a crank handle 15 or the like. Within the housing the shaft carries a ratchet wheel 16 integrally made with which is a disc 17 provided on its periphery with a plurality of successive numerals for instance as shown, 5, 10, 15, etc., if a bucket having a capacity of 5 gallons is used for dispensing such a quantity at one time from a tank etc.

It will be clear that other numerals can be used if the quantity of gasoline dispensed at one time by a bucket is 1, 2 3 or 4 gallons, etc.

The graduation lines between two numbers corresponding to the straight upper front edge of each ratchet tooth of wheel 16. A leaf spring 18 is secured with one end to the inner face of the end wall of casing 12 and engages with its outer end 19 rolled upon itself the ratchet teeth to prevent a backward rotation of wheel 16. A guard 20 is provided on top of the casing for protecting the numbered periphery of disc 17 but leaving an inspection opening 21 between it and a lower guard 22 provided at the inner end walls of the casing. In juxtaposition to guide 22 is arranged in the end wall of the casing, a sliding member 23 between the upper forked ends of which a finger 24 is pivotally secured with its lower reduced end, and a pin 25 transversely arranged between the prongs of the forked end limits the outward movement of said finger. The member 23 has an inner groove 26 below its forks for the reception of a coiled spring 27, and to its lower end is secured the upper end of a rod 28, the lower end of which is curved or bent as indicated at 29 to form a straight approximately horizontal part 30 adapted to rest upon the upper correspondingly formed edge of a nose or projection 31 of the nozzle 10. To the sides of the vertical member 32 of the rod 28 is fastened a yoke 33 through which the nose 31 extends for a purpose later to be more fully described, while the rectangularly and downwardly bent lower end 34 of the rod 28 grips over the outer end edge of the nose 31.

The nozzle 10 as illustrated in Figure 2 is composed of a horizontal part and a vertical part which are connected at their inner ends by a T-piece 35 of any ordinary well known construction.

The inner end of the casing 12 is closed by a plate 36 provided with a groove in its inner face in which part of the spring 27 is

arranged so that its upper and lower end engage the lower and upper end walls of the groove.

The device operates as follows:

Assuming the parts are in the position illustrated in Figure 2 in which a bucket of 5 gallon capacity is hung over part 30 of rod 28 while it rests on the top edge of nose 31 and filled to its capacity. When now the full bucket is lifted off the nose 31, the spring, relieved of the weight, which compresses it, will expand and lift member 23 so that its finger 24 engaging the ratchet teeth of wheel 16 will be raised and turn the wheel for one tooth so that instead of number 100 on the disc which was formerly visible through the opening 21, number 5 will appear below the opening to indicate that 5 gallons of gasoline have been taken from the tank. The parts are so selected that the well filled 5 gallon bucket 37 will compress the spring 27 and lower the member 23 to such an extent that every upward movement of the member 23 and finger 24 will turn the wheel 16 for one tooth. As the finger 24 allows the rotation of the wheel and disc in one direction by means of the crank handle 15 it will be possible to return the member disc after each filling operation is finished back to No. 100.

It will be clear that any number of 5 gallons taken from the tank up to 100 will be registered and no mistake can possibly be made by a miscount, etc., which are frequently the cause of disputes and losses either to buyer or seller.

While we have illustrated the preferred form of our device in the drawing we do not wish to limit ourselves to the exact construction shown, as many changes may be made in the general arrangement of parts and the specific construction of the minor details without deviating from the scope and spirit of our invention.

What we claim as new and desire to protect by Letters Patent of the United States—

A device of the character described comprising a casing adapted to be attached to the top of a discharge nozzle of gasoline tanks, means for securing said casing to said nozzle, rotating indicating means in said housing, a ratchet wheel integral with said indicating means, a substantially vertical rod, a grooved sliding member to which the upper end of said rod is secured, a forked upper end on said member, a finger pivotally secured between the forks at the upper end of said sliding member and adapted to engage the teeth of said ratchet wheel, means for limiting the movement of said finger in one direction, a coiled spring in the groove of said sliding member, a nose on said nozzle, the lower end of said rod being bent to engage the upper edge of said nose and the front edge of the same against action of said spring when a bucket of predetermined capacity is hung on said nose, a depending yoke through which said nose passes attached to said rod, means for preventing the rotation of said ratchet wheel in one direction, the removal of the filled bucket allowing an expansion of said spring to operate said finger for rotating said ratchet wheel, and indicating means to visibly indicate the number of fluid units discharged from said nozzle.

In testimony whereof we have affixed our signatures.

HEINRICH ALTHAUS.
JOHAN FANGMANN.