(No Model.)

G. S. WALKER.

REGISTER FOR FLOUR PACKERS.

No. 342,406. Patented May 25, 1886.

Fig. 1.

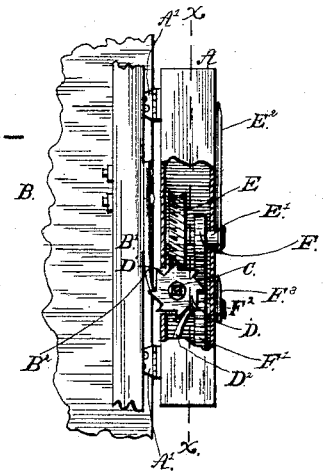


Fig. 2.

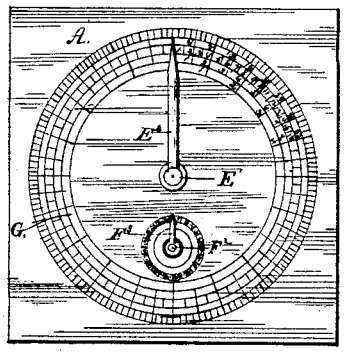


Fig. 4.

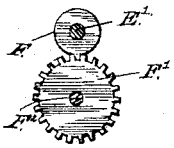
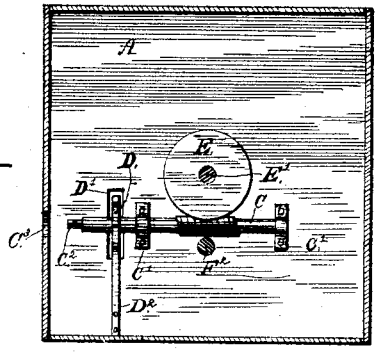


Fig. 3.



WITNESSES

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REGISTER FOR FLOUR-PACKERS.

SPECIFICATION forming part of Letters Patent No. 342,406, dated May 25, 1886.

Application filed August 4, 1885. Serial No. 173,532. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. WALKER, a citizen of the United States, residing at Helena, in the county of Lewis and Clark and Territory of Montana, have invented certain new and useful Improvements in Registers for Flour-Packers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention is intended to be used as an attachment for flour-packers; and its object is to automatically register the number of barrels of flour packed each day.

It consists in certain features hereinafter fully described, and pointed out in the claim.

In the drawings, Figure 1 shows my device in operative position, part of the casing being broken away in order that the arrangement of the interior mechanism may be shown. Fig. 2 is a front elevation. Fig. 3 is a vertical section on the line *x x*, Fig. 1. Fig. 4 is a detail view of the mechanism for indicating how many times the pointer has traveled the circuit of the dial.

A is the casing, which may be made angular, as shown in the drawings, or rounded, as may be desired. On the rear side of the casing I secure two hinges, A′ A′, by means of which the device is secured to the flour-packer B. Within the casing A, I support a worm-gear shaft, C, by means of suitable journal-bearings, C′ C′, secured to the rear wall of said casing. One end, C^2, of this worm-gear shaft is made angular, as shown, so as to adapt it to be engaged by a suitable key inserted through the opening C^3 in the side of the casing, the purpose of which construction will hereinafter appear. A ratchet-wheel, D, is rigidly mounted on the shaft C, and is made of such a diameter as to project through a slot, D′, in the back wall of the casing. The projecting portion of this ratchet-wheel D will be engaged and the wheel revolved by an operating pawl, B^2, secured to the vertically-vibrating post B′ of the packer. A spring-stop, D^2, is secured to the casing and engages the wheel D, so as to check any and all backward motion of the same. A worm gear-wheel, E, is secured on a shaft, E′, the rear end of which is journaled in the rear wall of the casing A. The front end of the shaft E′ extends through the front wall of the casing and carries the pointer E^2. The worm gear-wheel E meshes with the worm-gear shaft C, and is driven by it in the operation of the device. A spur-wheel, F, is mounted on the shaft E′ in advance of the wheel E, and engages a cog-wheel, F′, arranged below it, and mounted on a shaft, F^2, journaled in the front and rear walls of the casing. The front end of this shaft F^2 extends through the wall of the casing and carries the pointer F^3. The spur-wheel F is provided with a single spur or tooth, while the cog-wheel F′ is provided with teeth around the entire perimeter, as clearly shown in Fig. 4. The pointer E^2 revolves before a dial composed of a series of concentric circles, G, graduated, as shown, and which will now be described. The outmost circle is graduated, so as to register the number of eighth-barrels or sacks packed. In order that the numbers indicating the count may not be made too small and crowded to be easily read, I do not mark them on this circle, but extend every fourth graduation across the next inner circle, and mark the registration by fours, as shown—4, 8, 12, 16, 20, &c. The third circle, counting from the outside, is graduated so as to register the number of quarter-barrels packed. The graduating of this circle is very easily accomplished by simply transferring every second graduation on the outmost circle to the third or middle circle. It will be seen that by this system of graduating every fourth mark on the outmost circle is extended through the two next inner circles. I also continue it through the fourth circle, thereby graduating that circle, so as to register half-barrels. Every eighth graduation-mark I continue through the fifth or innermost circle, thereby registering the number of whole barrels packed. The pointer F^3 revolves before a dial composed of a single circle properly graduated to indicate how many times the large pointer E^2 has revolved.

In operation the flour-sack is placed on a suitable platform, (not shown,) to which the post or rod B′ is connected. When one eighth of a barrel has been packed in the sack, the weight thereof will cause the platform and the post B′ to descend, thereby rotating the ratchet-wheel D, the motion of which will be communicated to the pointer E^2 through the worm-gear C E and shaft E′. As the shaft E′, which carries the pointer E^2, revolves, the spur-wheel F, mounted upon said shaft, will be revolved, and at the end of each complete revolution will engage the teeth of the cog-wheel F′ and move the same forward a short distance. It will be seen that I thus provide a perfect, simple, automatic register, which will accurately indicate the number of barrels and parts of barrels which have been packed. The device may be made to register a larger or smaller number by using larger or smaller gearing, as will be readily understood. When the flour has all been packed, and it is desired to turn the pointer to the zero-point of the dial, a suitable key is inserted through the opening C^3 in the side of the casing and engaged with the angular portion C^2 of the shaft C. By this means the pointer E^2 may be readily rotated until it reaches the zero-point, the entire device being swung around on its hinges, so as to bring the ratchet-wheel D out of engagement with the projection B^2. The use of the hinges A′ will be found advantageous, also, when it is desired to clean the operating mechanism, or for any other reason.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a flour-packer, the combination of the post B′, having pawl B^2, the hinged casing provided with a slot in its rear wall, the worm-shaft C, ratchet-wheel D keyed thereto and projected through said slot and engaged by pawl B^2, worm-wheel shaft E′, spur-gear F, and the shaft F^2, provided with the cog-wheel F, engaged by the spur during each complete revolution thereof, the parts being arranged and operating substantially as described and shown.

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

GEORGE S. WALKER.

Witnesses:

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EDWIN W. CRAVEN.