

W. H. PHINNEY.

SCALE FOR SHOWING WEIGHT AND PRICE.

No. 106,869.

Patented Aug. 30, 1870.

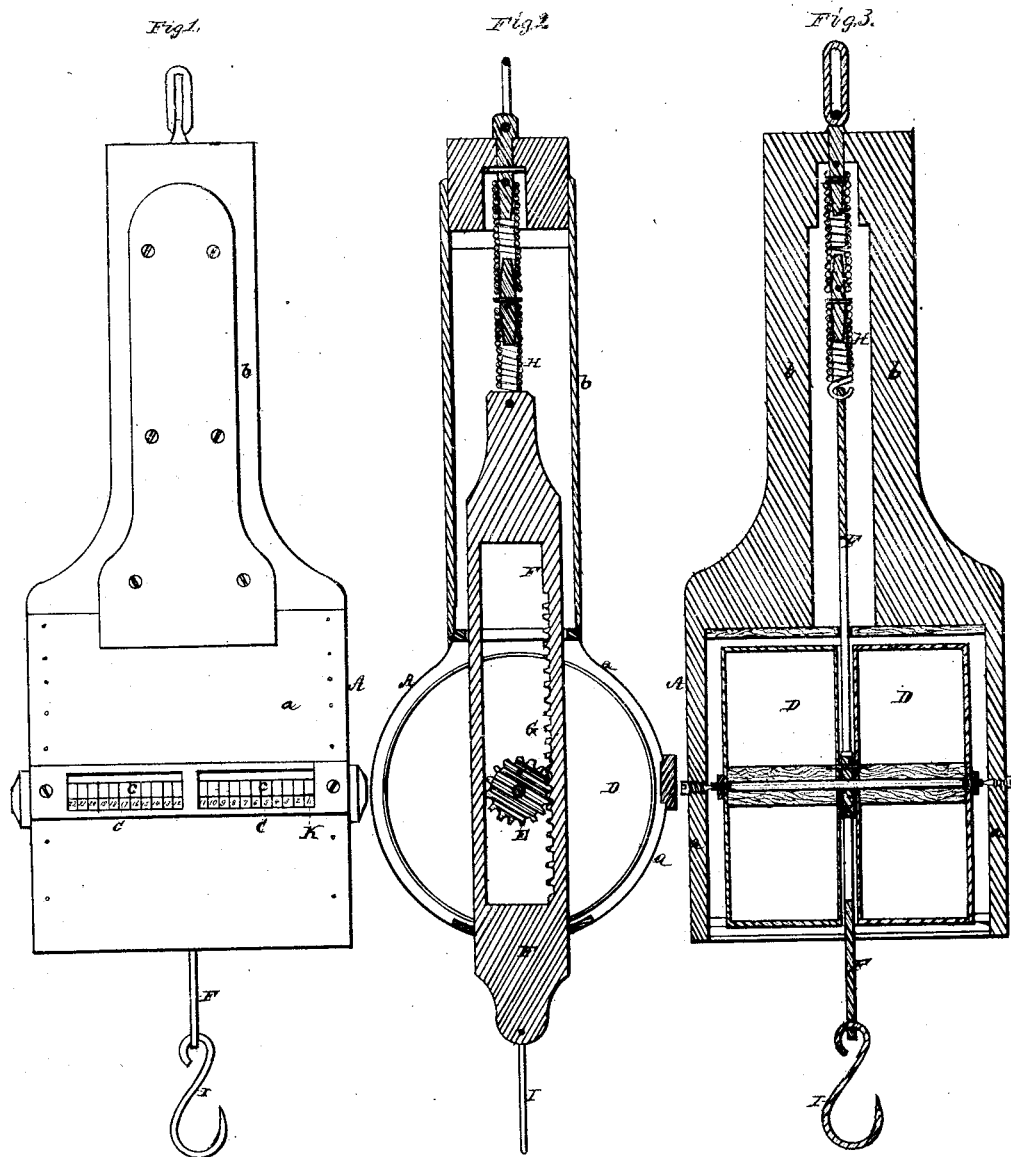
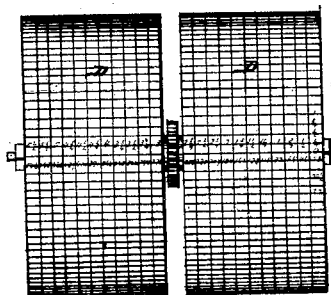


Fig. 4



Witnesses.

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WILLIAM H. PHINNEY, OF PAWTUCKET, RHODE ISLAND.

Letters Patent No. 106,869, dated August 30, 1870.

IMPROVEMENT IN SCALES FOR SHOWING WEIGHT AND PRICE.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, WILLIAM H. PHINNEY, of Pawtucket, of the county of Providence and State of Rhode Island, have invented a new and useful Apparatus for Determining the Weight and Value of Articles; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a front elevation;

Figure 2, a transverse section; and

Figure 3, a longitudinal section of such apparatus.

Figure 4 is a front elevation of the valuation cylinders separated from the case of the apparatus.

In such drawing—

A denotes the said case as composed of a drum, *a*, and a hollow or chambered arm, *b*, extending upward from and opening into such drum.

There are one or more slots, *c c*, made through the front of the drum, and formed trapezoidal, in transverse section, there being a scale, *O*, on the lower side of each slot.

This scale is divided into equal parts, each having a designating number upon it, as represented.

Within the drum there are arranged two cylinders, *D D*, whose lengths correspond very nearly, if not exactly, with those of the two slots.

They are disposed opposite the slots, and have a gear or toothed pinion, *E*, disposed between them, and fixed to them or their common axis or shaft.

A slotted bar, *F*, applied to the case, so as to be capable of moving vertically therein and out of the bottom of the drum, has a rack or series, *G*, of teeth, to engage with the said pinion.

The bar *F* depends from a helical spring, *H*, arranged within the case and suspended from its upper part, in manner as represented.

A hook, *I*, applied to the lower part of the slotted and toothed bar *F*, serves to enable an article to be weighed and valued to be connected with the bar.

The two cylinders are divided lengthwise on their peripheries by a series of lines, extending around them, and being at equal distances apart, they being in number corresponding to the divisions of the weight scale.

The said cylinders are also otherwise divided, viz., by a series of straight lines crossing the circles or divisions before mentioned, and arranged parallel to one another, and at or about at equal distances apart.

We will suppose that the parallel straight lines mark the arcs of revolution of the cylinders, caused by different weights being upon the hook *I*, that is, we will suppose that every additional quarter of a pound applied to the hook shall cause the cylinders or barrels to revolve one of their arcs of divisions, therefore we should number the said arcs $0\frac{1}{4}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$, $1\frac{1}{4}$, and so on.

Opposite each of such numbers we mark the transverse divisions of the drum or drums with figures corresponding to the products resulting from multiplying the starting number by numbers of the scale *O*, indicative of the divisions.

Their numbers for the space marked $\frac{1}{4}$ would be $\frac{1}{4}$, $\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{1}{2}$, 2 , and so on, the whole being as represented in the drawing.

Now, suppose we desire to ascertain the weight and value of an article, we have only to hang it on the hook, which, being accomplished, the draft on the bar *F* will cause the bar to descend until stopped by the spring, the barrel or cylinders, in the meantime, being revolved, so as to indicate the weight at the right terminal circle of divisions.

Suppose the weight indicated to be two pounds and one-half, we look on the scale *O* for the price per pound, and whatever it may be opposite to it on the cylinder we shall find the value, or that twice multiplied by the weight.

If, for instance, we suppose the price to be ten cents per pound, and the weight as above, viz., two and one-half pounds, we should find on the drum, directly opposite the mark 10 of the scale *O*, the number 25, indicative of the value of the weight.

Thus, it will be seen that, at a glance at the price on the scale *O*, and at the number that on the drum may be next to the said price, we shall have the value of any article suspended from the hook.

The apparatus will be found very convenient for tradesmen, especially for butchers and vendors of vegetables and fruits, who, by means of it, will be saved the necessity of first ascertaining the weight of an article, and next going through the process of multiplying such weight by the price per pound or ounce, as the drum number which may be next opposite the price number will indicate the value.

A small index-pointer, *K*, arranged on the middle of one end of the slot of the drum serves to show when any circular division of the weight scale may have reached its proper position.

The apparatus may be applied to a common steel-yard beam or weighing-machine, so as to denote, by its operation, the value of any article weighed thereby, in which case the slide rack would be suspended from or appended to the beam, so as to be moved thereby.

I claim—

The arrangement and combination of the spring *H*, or its equivalent, the slide rack-bar *F*, the gear *E*, the scale *O*, and the divided cylinder or cylinders *D*, the whole being substantially as described.

W. H. PHINNEY.

Witnesses:

R. H. EDDY,
J. R. SNOW.