(No Model.)

C. M. BABCOCK.

COMPUTING SPRING SCALES.

No. 421,805. Patented Feb. 18, 1890.

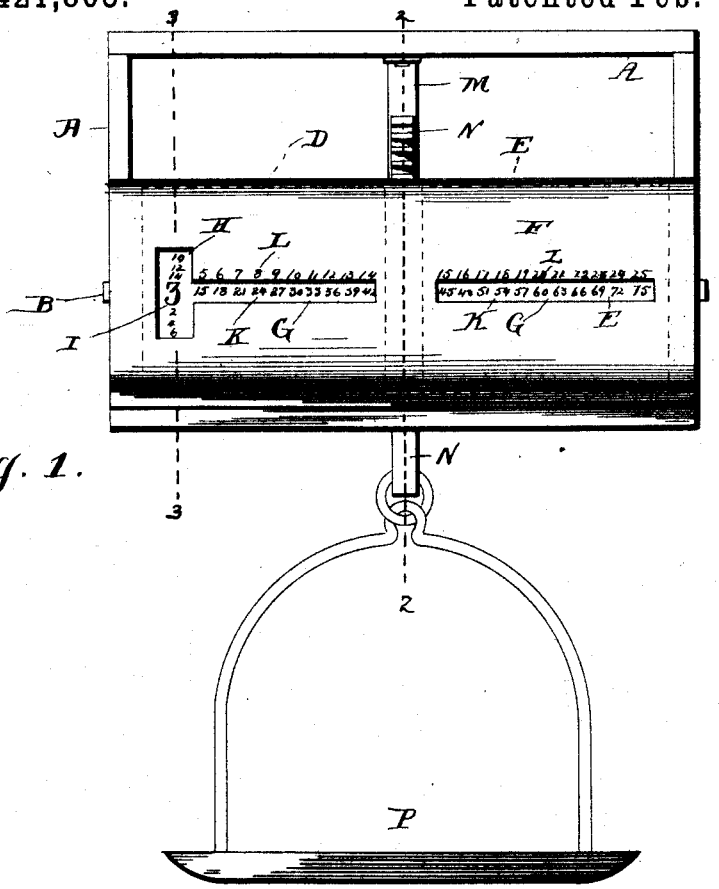

Fig. 1.

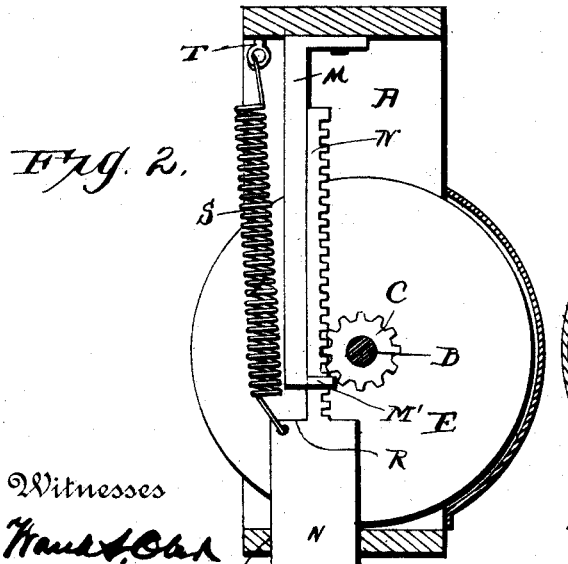

Fig. 2.

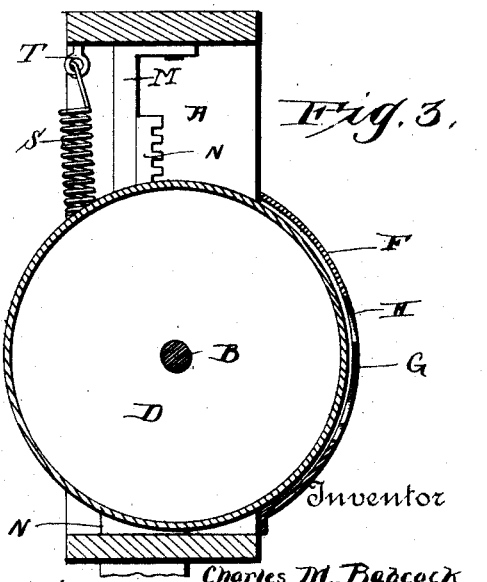

Fig. 3.

Witnesses

Inventor

Charles M. Babcock

By his Attorneys

UNITED STATES PATENT OFFICE.

CHARLES MONTGOMERY BABCOCK, OF GARRATTSVILLE, NEW YORK.

COMPUTING SPRING-SCALES.

SPECIFICATION forming part of Letters Patent No. 421,805, dated February 18, 1890.

Application filed February 7, 1889. Serial No. 298,997. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MONTGOMERY BABCOCK, a citizen of the United States, residing at Garrattsville, in the county of Otsego and State of New York, have invented a new and useful Improvement in Computing-Scales, of which the following is a specification.

My invention relates to an improvement in computing-scales; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide weighing-scales adapted to indicate instantaneously the precise value of a commodity weighed thereon at any given price.

In the drawings, Figure 1 is a front elevation of scales embodying my improvement. Fig. 2 is a sectional view of the same, taken on the line 2 2 of Fig. 1. Fig. 3 is a similar view taken on the line 3 3 of Fig. 1.

A represents a rectangular frame of suitable size and construction, in the ends of which is journaled a shaft B. Keyed or otherwise firmly secured to the center of the said shaft is a pinion C, and on the end portions of the shaft are secured cylindrical drums D E. On one side of the frame is secured a semi-cylindrical case F, which partly covers one side of the cylindrical drums. The said case is provided with transverse horizontal openings or slots G, through which portions of the drums are disclosed, and communicating with one end of the said opening G is a vertical opening H. Extending around the periphery of the drum D at one end of the same is a scale I, indicating pounds and fractional parts thereof, and inscribed on the periphery of the drums D E, and arranged in longitudinal lines which align with the figures of the scale I, are scales K, which are arranged in vertical columns that align with the scale of figures L, which are arranged in a horizontal line along the upper side of the slots G and indicate the prices per pound of commodities.

M represents a stationary vertical guide-rod which depends from the upper side of the frame A, the lower end of said guide-rod extending between the cylindrical drums and being bent forward at M′ and provided with a vertical slot.

N represents a rack-bar, which extends through an opening O in the lower side of the frame and passes upwardly loosely through the opening just mentioned, its rear face sliding freely in contact with the front face of the guide M, and to one end of this rack-bar is attached a scale-pan P. The rack-bar engages the pinion C, and is provided on its rear side with a shoulder R, which is adapted to abut against the lower end M′ of the guide-rod M, and thereby limit the upward movement of the rack-bar. The latter reciprocates between the front side of the guide-rod and the teeth at the rear of the pinion.

S represents the coiled retractile spring, which has its lower end attached to the shoulder R of the rack-bar, and has its upper end attached to an eye or keeper T at the upper side of the frame. This spring stands just in rear of the guide-rod M, between the inner ends of the drums D E, and normally retains the rack-bar at the upper limit of its movement with the naught or zero point of the scale I on the drums registering in the slot H in alignment with the open end of the slot G. When a piece of meat or other commodity is placed in the scale-pan, its weight causes the rack-bar to descend against the tension of the spring, and thereby causes the pinion to partly rotate the drums and cause the scale I to indicate the exact weight of the commodity in pounds and ounces, as will be readily understood.

The price of the commodity per pound being known and the weight thereof being indicated by the scale I, it is only necessary to consult the figure of the scale K, which there stands under the appropriate figure of the scale L, to ascertain at a glance the value of the commodity, hence rendering it unnecessary to calculate the same. For instance, if a piece of meat placed on the scale-pan weighs three pounds, the cylindrical drums will come to rest and the figure "3" of the scale I is in the opening H, opposite the end of the opening G; and, assuming that the meat is worth eight cents per pound, its value (twenty-four cents) will be indicated by the figures "24" of the scale K being directly under the figure "8" of scale L.

Having thus described my invention, I claim—

1. The rectangular frame A, having the opening O in its base, the flat vertical guide-rod M, rigidly secured to the top of said frame and having its lower end M′ bent forward and slotted, the rack-bar N, its body passing loosely through said opening O, its toothed portion through said slotted end M′, with the rear face thereof sliding upon said flat guide-rod M, and the shoulder R between said body and toothed portion normally resting against said lower end M′, the coiled spring S, standing in rear of said guide-rod and connected at its ends to the top of the frame and to the shoulder R, and the pan P, carried by said rack-bar N, in combination with indicating devices, as D E, mounted on a shaft, and a pinion thereon engaging said rack-bar, as and for the purpose set forth.

2. The rectangular frame A, having the opening O in its base, the flat vertical guide-rod M, rigidly secured to the top of said frame and having its lower end M′ bent forward and slotted, the rack-bar N, its body passing loosely through said opening O, its toothed portion through said slotted end M′, with the rear face thereof sliding upon said flat guide-rod M, and the shoulder R between said body and the toothed portion resting normally against said lower end M′, the coiled spring S, standing in rear of said guide-rod and connected at its ends to the top of the frame and to the shoulder R, and the pan P, carried by said rack-bar N, in combination with the shaft B, journaled in said frame and passing in front of said stationary guide-rod, drums D E, mounted on said shaft on either side of said rod, rack-bar, and spring, pinion C on said shaft, engaging the toothed side of said bar and pressing it against said guide, scales marked on said drums, and a casing F on the frame covering said drums and having openings, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES MONTGOMERY BABCOCK.

Witnesses:
H. S. MATHER,
E. C. MILLER.