

M. PHELPS.

COMBINED PLATFORM SCALE AND CALCULATOR.

No. 438,753.

Patented Oct. 21, 1890.

Fig 2

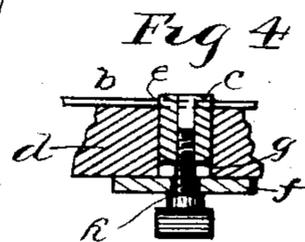
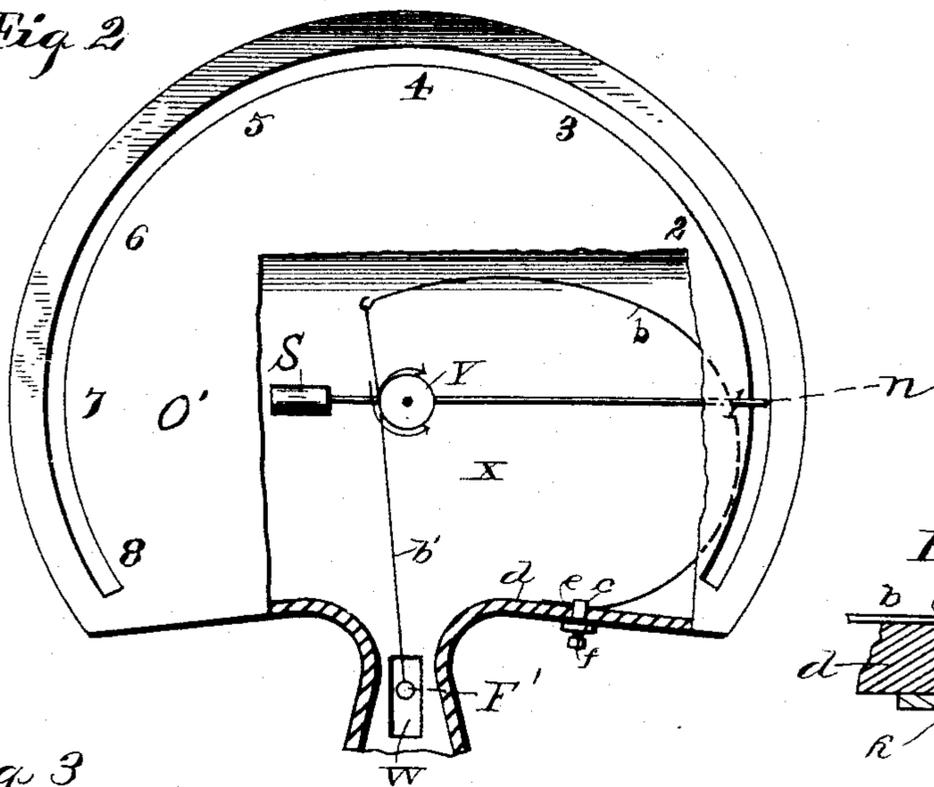


Fig 3

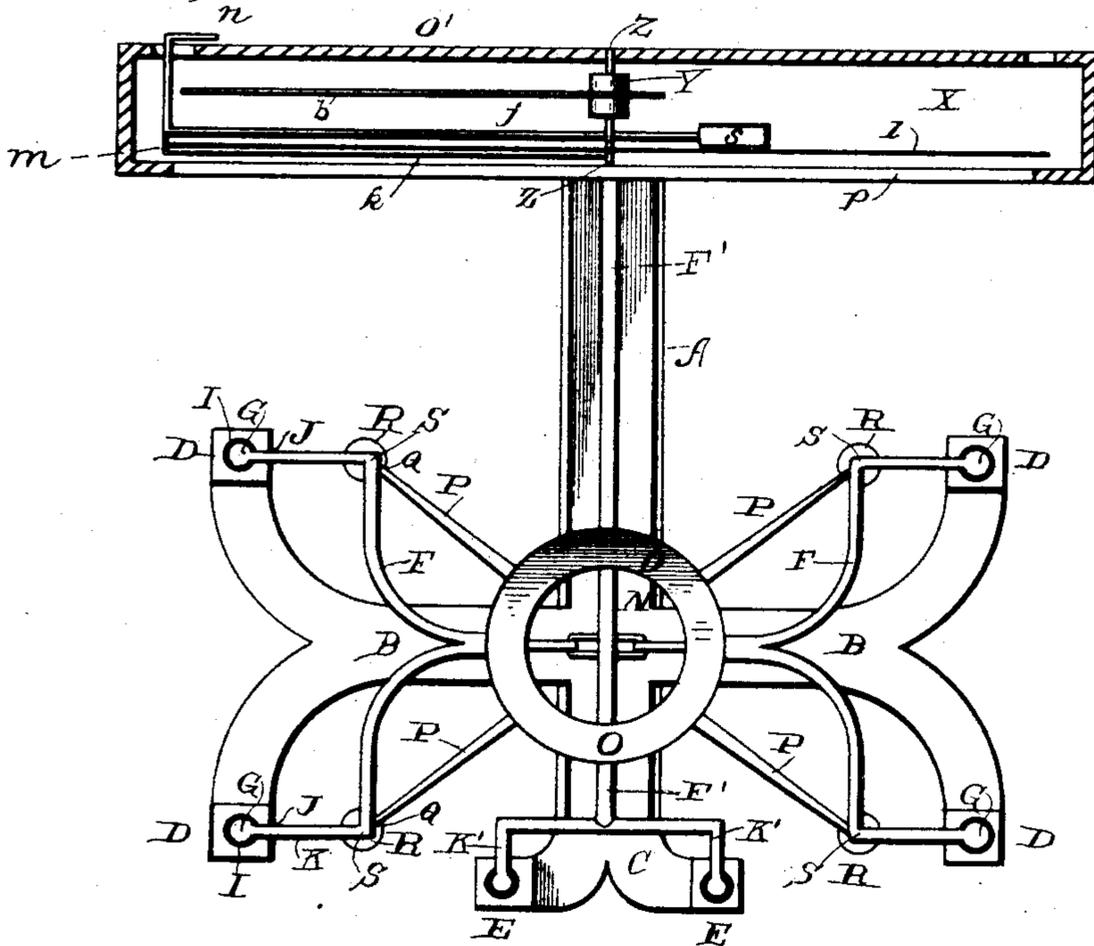


Fig 5.



Witnesses

C. C. Burdick
R. H. Bois

Inventor

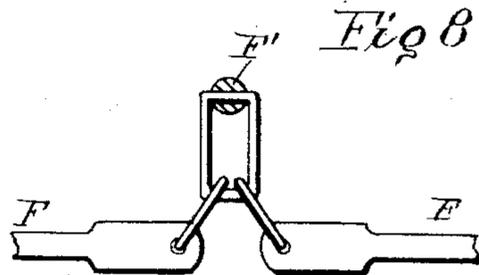
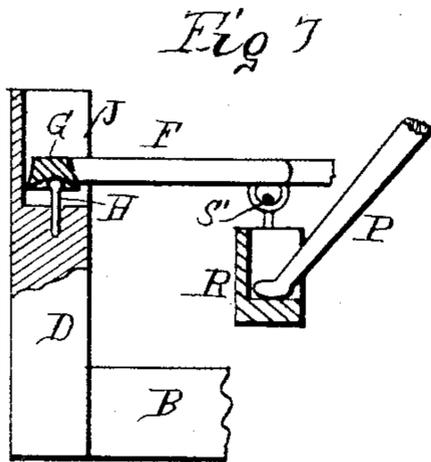
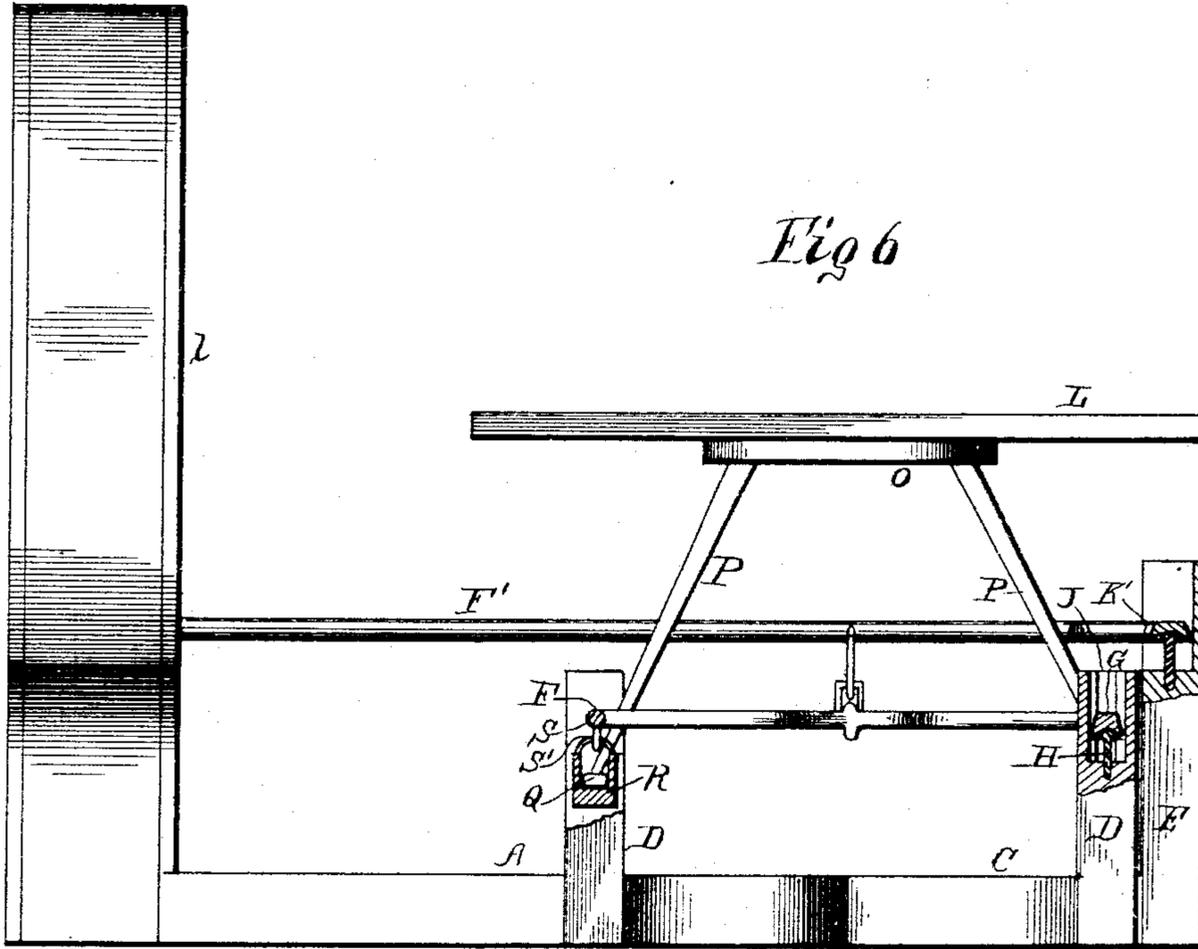
Mac Phelps
per Charles & William B King
his Attorneys

M. PHELPS.

COMBINED PLATFORM SCALE AND CALCULATOR.

No. 438,753.

Patented Oct. 21, 1890.



Witness
C. C. Burdine
Alton, Mo.

Inventor
Mac Phelps
 by *Charles Wm King*
 his Attorneys.

UNITED STATES PATENT OFFICE.

MAC PHELPS, OF RED OAK, IOWA.

COMBINED PLATFORM-SCALE AND CALCULATOR.

SPECIFICATION forming part of Letters Patent No. 438,753, dated October 21, 1890.

Application filed April 17, 1890. Serial No. 348,303. (No model.)

To all whom it may concern:

Be it known that I, MAC PHELPS, a citizen of the United States of America, residing at Red Oak, in the county of Montgomery and State of Iowa, have invented certain new and useful Improvements in a Combined Platform-Scale and Calculator, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has special reference to an automatic platform-scale and calculator combined.

The object of my device is to produce a combined platform-scale and calculator which will automatically denote the weight and price without adjustment before or after each operation, and which will expose to view the exact weight upon one side of the dial adapted to be seen by the customer and give the price upon the opposite side, which faces the seller.

A still further object of my invention is to provide a simple, cheap, and durable article for merchants' use.

With these ends in view my invention consists in the peculiar features and combinations of parts, more fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my complete invention as seen by the seller; Fig. 2, a front view as seen by the buyer, the exterior casing being removed to show the internal mechanism which actuates the price and weight indicator; Fig. 3, a plan, partly in section; Fig. 4, a detail view of the spring-regulator; Fig. 5, a view of the platform detached; Fig. 6, a side elevation with the posts D and E partly broken away; Fig. 7, an enlarged detail view illustrating the mode of pivoting the compound levers and supporting the platform of the scales, and Fig. 8 a detail view representing the link-connections between the levers.

The reference-letter A represents a base provided with branching arms B and C, having upon their outer extremities posts D and E, which support a system of compound levers F F'. These levers have upon their outer ends concave caps G, which fit over and are poised upon pins H, located within recesses

I, having open slots J, through which the arms K K' extend.

The platform L is provided with a plug M, Fig. 5, upon its under side, which fits within a corresponding hole N in the top of a seat O, and this seat is provided with four legs P, having laterally-extending feet Q, which are supported within hangers R. These hangers have openings R' in them to receive the feet Q, like the openings or recesses I in the posts D, and they are suspended from the shoulders S by the bails S', so that the weight of the platform will rest upon the levers F and F'. This lever F' comprises a long rod extending parallel with the body of the frame A, and its free end passes through an elongated opening W, leading into the interior of the casing X, where it is supported by a flexible connection b'. This connection passes over a spindle Y, extending transversely across the interior of the casing, and is mounted in bearings Z, so that when downward pressure is brought to bear upon the platform the spindle will be rotated. A retracting-spring b is provided with a flexible connection b', which extends around the drum y in an opposite direction, so that the indicator will be restored to the zero-point when weight is removed from the platform. This spring is adjustably secured to the bottom wall d of the casing by an adjusting device, which consists of a square bolt c, located within a corresponding opening in the wall d, as seen in Fig. 4. The spring b passes transversely through a recess e in the top of the bolt, and its under side is drawn down tightly against the interior surface of the casing by means of a thumb-screw, which passes freely through a metal plate f upon the exterior of the casing and into a threaded aperture g in the bolt. The screw has a shoulder h, which bears against the plate in the tightening operation, but does not engage the interior of the aperture in the plate through which the bolt passes. By turning the screw to the left the bolt c is pushed upward and the spring a released, so that it can be moved endwise to stiffen or ease it in adjusting the scales.

An indicator is secured to and turns with the spindle Y, and it consists of two metal rods j and k, which pass upon opposite sides

of a dial-plate l . These rods are connected at their outer free ends by a cross-rod m , which is provided with a pointer n , arranged to move across the face of the weight-dial o' upon the front of the dial-plate. The rod j is provided with a counter-balance s . The weight-dial is exposed to view by an arc-shaped window p , so that the buyer can readily see the weight of the goods purchased.

In the present instance the weight-dial is numbered from 1 to 8, with fractions of pounds.

The opposite side of the plate l is provided with a price-dial, before which the indicating-rod k oscillates. This dial consists of a number of concentric lines r , surrounding the axis or spindle of the pointer and forming a computing-table for the seller.

At the left-hand end of the lines r , I provide a row of figures running from 2 to 12, which represent the price per pound from two to twelve cents, increasing as they are distant from the center of the dial. The concentric lines are each provided with figures representing cents, and commencing at the price-column they increase in the ratio of those on the weight-dial. Thus in the outside line, or that one indicating meat bringing twelve cents per pound, the figures run from 1 to 12, between the zero-mark and the one-pound mark, and from 12 to 24 between the one and two pound marks, and in like ratio from the numbers indicating lower-priced meats. Around the outer line of the dial a series of numbers representing pounds are placed, so that the seller can see the weight and price at the same glance.

In using my device the merchant places the articles to be sold upon the platform L , which is supported by the hangers R , suspended from the levers F , and these levers having their free ends attached to the long lever F' , depress the latter, thereby drawing down upon the cord or flexible connection b' and rotating the spindle against the tension of the spring B . This action moves the indicating-rod k over the face of the price-dial O , and the pointer n over the scale denoting the weight. If the price is two cents per pound, then follow up the two-cent line to the indicator k , and the amount will be given.

In Fig. 1 the indicator-rod k is shown pointing to one pound and crossing all the concentric rows of figures, so that if the price is twelve cents per pound the rod will stand before a point located just two units past number 10 in the twelve-cent row. Hence it will be seen that the hand k crosses transversely all the concentric rows of figures, and that the

cost of any number of pounds within the weighing capacity of the scale, and within the set of prices in the transverse column at the left end of the rows, can be readily ascertained.

It is evident that my invention could be varied in many ways which might suggest themselves to a skillful mechanic. Therefore I do not limit myself to the exact construction herein shown, but consider myself entitled to all such variations as come within the scope of my device.

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

1. In combination with a platform-scale, a plate provided with a dial upon one side representing prices, a dial upon the opposite side representing weights, a casing surrounding said plate and having openings in opposite sides to show the dial, a pointer upon one side, and an indicating-rod upon the other, whereby the weight can be told from one side and the price from the other, in the manner and for the purpose substantially as described.

2. The combination of a base provided with posts rising therefrom and having recesses in their upper ends, levers pivoted within said recesses, said levers having their free ends connected with a laterally-extending lever having its free end connected with the indicating mechanism, and a platform provided with feet resting within hangers suspended from said levers, in the manner and for the purpose substantially as described.

3. In weighing-scales, the combination of a base provided with suitable standards rising therefrom, a system of compound levers, and a platform provided with feet or suitable supports resting upon swinging hangers suspended from said levers, in the manner and for the purpose substantially as described.

4. In combination with a device for supporting the matter to be weighed, a stationary dial provided with concentric rows of figures, a pointer having its spindle coincident with that of said dial, a counterpoise upon said pointer, and a retracting-spring having one end adjustably fastened to a rigid support and the other end to a flexible connection, winding over the pointer-spindle and passing thence to the weight-supporting device, in the manner and for the purpose set forth.

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

MAC PHELPS.

Witnesses:

T. J. RAY,
A. R. ELLETT.