

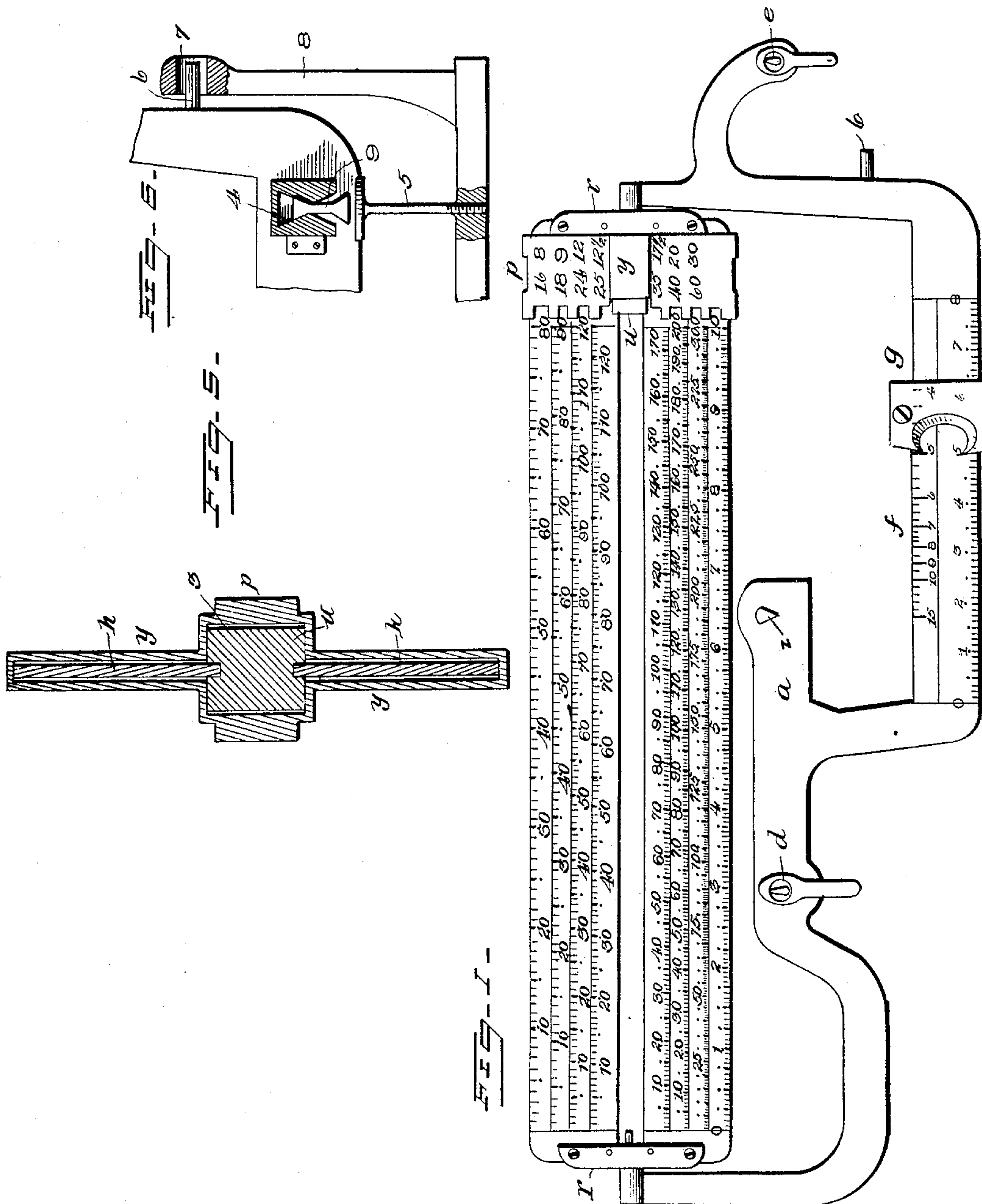
No. 748,057.

PATENTED DEC. 29, 1903.

F. P. DUNN.
COMPUTING SCALE.
APPLICATION FILED DEC. 12, 1902.

NO MODEL.

2 SHEETS--SHEET 1.



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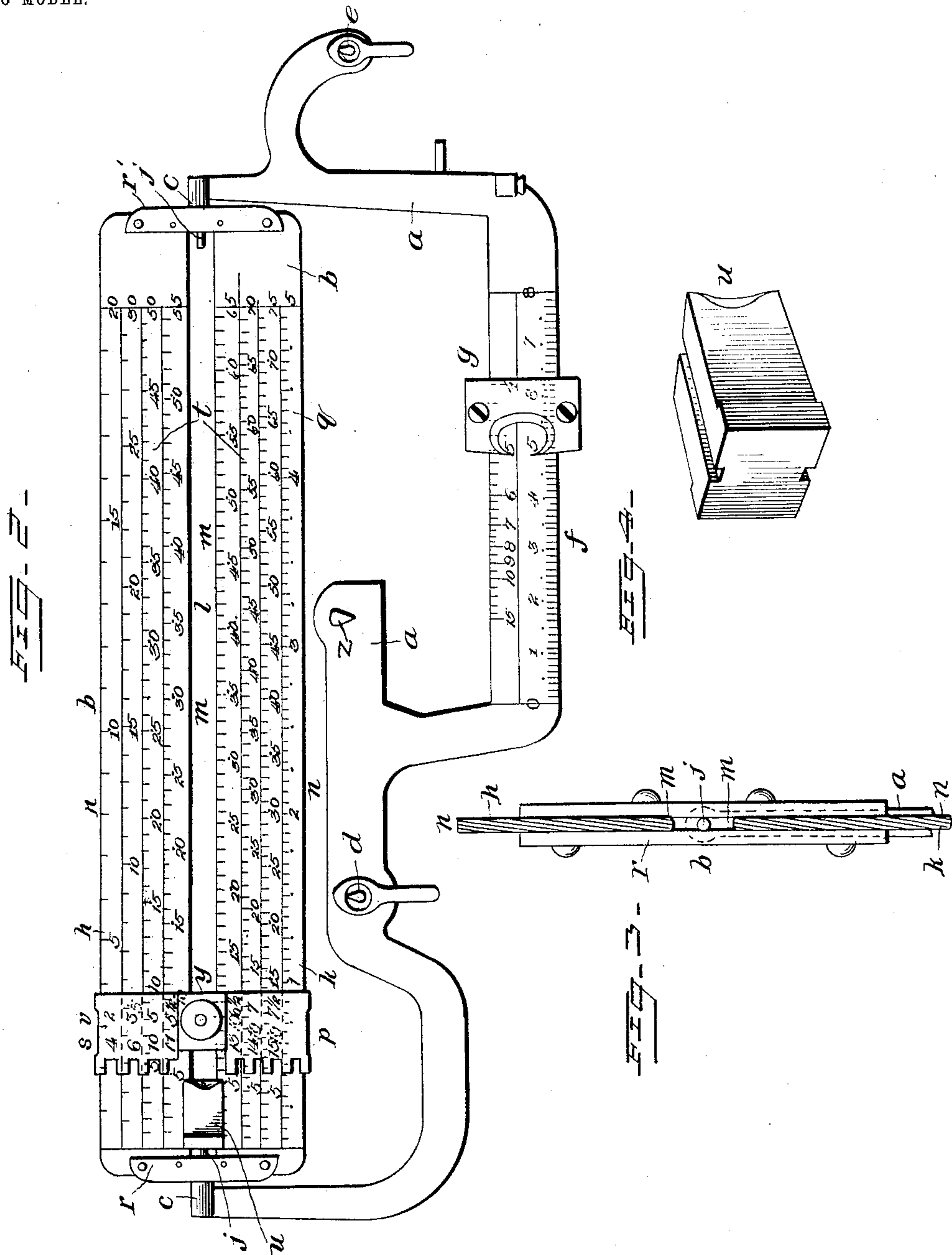
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UNITED STATES PATENT OFFICE.

FRANK P. DUNN, OF ANDERSON, INDIANA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO JOHN H. OSBORNE AND GEORGE A. LAMBERT, OF ANDERSON, INDIANA.

COMPUTING-SCALE.

SPECIFICATION forming part of Letters Patent No. 748,057, dated December 29, 1903.

Application filed December 12, 1902. Serial No. 134,960. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. DUNN, a citizen of the United States, and a resident of Anderson, in the county of Madison and State of Indiana, have made a certain new and useful Invention in Computing-Scales; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of the scale-beam with poise *y* carrying core-piece *u*. Fig. 2 is a similar view from the opposite side with poise *y* detached from core-piece *u*. Fig. 3 is a section on the line 3 3, Fig. 1. Fig. 4 is a detail perspective view of core-piece *u*. Fig. 5 is a section on the line 5 5, Fig. 1. Fig. 6 is a detail view, partly in section, illustrating the operation of weight 9.

The invention relates to price-scales; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the construction of price-scales the computing-bar carrying the price-figures is usually somewhat crowded with such markings unless of such large size as to render it somewhat cumbersome. The present invention is designed to obviate this objection and in this way to provide a more compact and useful device for the purposes in view.

In the accompanying drawings, illustrating the invention, the letter *a* designates the main frame of the poise-bar or scale-beam, carrying the price-bar or computing-bar *b*, which is revoluble in the bearings *c* of said main frame, which are engaged by its journals *j*. The bearing on the frame for the hanger of the platform or scale-pan is indicated at *d*, and the bearing for the hanger of the main weight-carrier is indicated at *e*. The lower part of the frame forms a tare-beam, as at *f*, and *g* is the poise thereon. The fulcrum of the main frame-bar is shown at *z*.

The computing-bar *b* may be made single

or double, but is preferably double, as shown in the drawings, comprising the parallel elongated plates *h* and *k*, between which is an interval or slot *l*, the margins *m* of which form the slideways for the inner section of the compound poise *p*, while the outer margins *n* of said plates form the bearings for the outer part, which may be used independently for lighter weights.

The base and scale pan or platform devices may be of ordinary character.

The computing-bar *b* is usually constructed with grooved end pieces *r*, to which the computing-plates are secured. The journals *j* are also secured in the end pieces and extend outward longitudinally to engage the bearings of the frame. The computing or price bar being revoluble has two useful sides. On one side along one margin are the pound-graduations, usually from one to five pounds, inclusive, as indicated at *q*. Above these marginal pound-graduations is a table *t*. Parallel price-graduations arranged in vertical series of horizontal divisions and corresponding to the line of pound-marks on the margin. In the illustration the table shows seven such divisions of price-graduations, corresponding to and in horizontal alinement with fourteen different prices per pound, (indicated by two vertical lines of figures *s* and *v* on the poise *p*,) these lines of figures ranging from two cents to seven and one-half cents for the cheaper prices and from four cents to fifteen cents for the higher prices. These price-marks are distinguished from each other usually by coloring one set of price-figures red, and it will be observed that in the construction illustrated the price-figures on the left of the poise-surface are one-half the amount of the price-figures in the right column, respectively. The table *t* of the computing-bar has its divisions alined with the price-per-pound marks of the poise and its figures are impressed for the column of heavier prices, the lighter prices being obtained by halving the figures of the table. On the other side of the computing-bar is provided a marginal line of pound-gradua-

tions running from one to ten pounds and above this line the table of costs in vertical series of graduation-lines ranging in accordance with higher price-per-pound markings impressed on the surface of the poise corresponding to this side of the bar. There are two price-per-pound columns on the side of the poise, which in the construction illustrated range from eight cents to thirty cents in the cheaper column and doubled, as from sixteen cents to sixty cents, in the more costly column, the figures of the two columns being usually distinguished from each other as hereinbefore noted. The table of prices is graded on this side for the lighter price-per-pound marks and must be doubled to obtain the prices in accordance with the figures of the more costly column; but the figures may be arranged for halving to obtain the computed values, as on the other side of the bar.

The compound poise p consists of an outer or main portion y and an inner or separable core portion u . The portion y spans the computing-bar and is provided with the price-per-pound markings hereinbefore described, the cheaper columns of which refer to such portion y which is of itself an independent poise for such cheaper prices. This poise y is provided with a recess or seat 3 for the reception of the separable or core piece u , which is designed to act as a poise only in connection with the poise y , and when the latter poise y carries the core-piece u it is of proper weight to serve for the columns of more costly price-per-pound markings on the surface of the poise. When not in use, the core-piece which engages the inner edges of the parallel plates h is detached from the poise y and remains at the end of the computing-bar, or in position where its weight does not add to that of the poise y . In this manner it is designed to maintain the computing-bar at reasonable dimensions and at the same time to utilize it for a large range of pound prices with a simple table of costs. The tare-beam is also simplified by providing above the marginal line of pound-graduations a line or graduated table of price-per-pound figures to show the price per pound at which a given number of pounds indicated by the poise will amount to twenty-five cents.

In order to assist in obtaining the balance of the scale, it is designed to provide the heel of the frame-bar of the beam at the end opposite the zero end thereof with a little vertically-movable weight 9 of the minute character working in a bearing or seat 4, from the lower portion of which said weight projects downward over a small supporting-stand 5. When the balance of the scale is approximated and the indicator-stud 6 rests at the bottom of the slot 7 of the limit-standard 8, this weight 9 will come to rest upon stand 5, relieving the scale-beam of that much weight,

whereupon if the balance is nearly obtained the beam will rise again.

By the use of the compound double or telescoping poise it is designed to provide for utilizing one line of price-graduations on the computing-bar for two different prices, thereby eliminating one-half the lines and graduations usually employed on scales of the general character. By reducing the number of lines of graduations it is practicable to use larger figures, thereby simplifying the appearance of the scale and reducing the liability of error in reading.

The capacity of the computing-beam is increased at prices that are most usually required for merchants through the employment of the compound poise, and for such capacity the beam is comparatively short and more sensitive.

Weights can be used having different columns to correspond with the distinguished figures of the two columns of the price-per-pound marks on the poise, and as the price marks and graduations may be permanently stamped on the computing-bar this important part is rendered permanent and substantial.

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

1. In a computing-scale, the combination with the scale-beam, having a line of price-graduations, of a compound poise, having a slidable core-piece engaging the edge of said beam, and provided with a double set of pound-price graduations in horizontal alignment with said line of price-graduations, substantially as specified.

2. In a computing-scale, the combination with the double scale-beam composed of the two parallel plates separated by an interval, and bearing thereon a line of pound-graduations, and vertically aligned with the same on the same side of the beam, lines of price-graduations, of a compound poise bearing two sets of price-per-pound marks in horizontal alignment with said price-graduations, and a slidable core-piece engaging the inner edges of said parallel plates, substantially as specified.

3. In a price-scale, the scale-beam provided with a tare-bar having a line of pound-graduations, and over the same, a line of graduations representing the rates per pound with reference to a fixed total selling price, substantially as specified.

4. In a computing-scale, the combination with the scale-beam, having a seat in the end of the beam opposite the zero end thereof, of a small vertically-movable weight in said seat, and a supporting-stand for said weight and upon which it is adapted to rest when the balance is approximated, substantially as specified.

5. In a computing-scale, the combination

with the revoluble double scale-beam composed of the two parallel plates separated by an interval, and bearing thereon on each side a line of pound-graduations and vertically
5 alined with the same lines of price-graduations, of a compound poise spanning the beam and bearing two sets of price-per-pound marks in horizontal alinement with said price-graduations, said poise having a recess, and

a slidable core-piece adapted to seat in said recess and engaging the inner edges of said parallel plates, substantially as specified.

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

FRANK P. DUNN.

Witnesses:

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JAMES F. BOLEN.