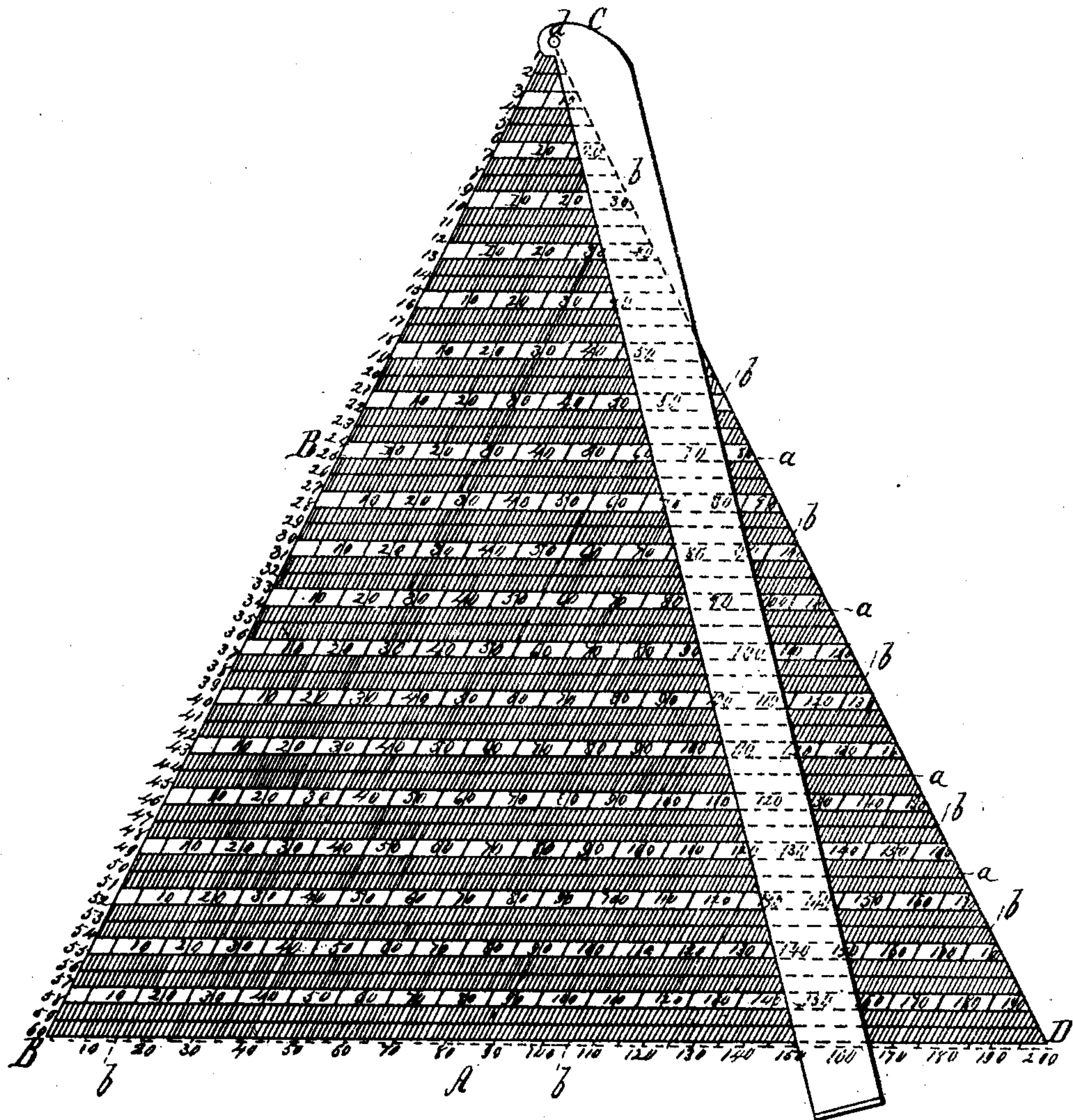


A. BRODIE.

Calculator.

No. 102,216.

Patented April 26, 1870.



Witnesses;
A. B. Munk
Saml. J. Murr

Inventor;
Alex Brodie
by Bunde & Dyer

United States Patent Office.

ALEXANDER BRODIE, OF UNION, MICHIGAN.

Letters Patent No. 102,216, dated April 26, 1870.

IMPROVEMENT IN CALCULATORS

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

To all whom it may concern:

Be it known that I, ALEXANDER BRODIE, of Union, in the county of Isabella and in the State of Michigan, have invented a certain new and useful Improvement in Calculators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which is shown a plan view of my improved device.

My invention has for its object the production of a simple, reliable, and cheap adjustable table for determining the value of the fractions of a bushel of grain or seed at any given price per bushel, and to this end

It consists in an isosceles triangle, the surface of which is divided into a series of equal spaces by means of progressively numbered intersecting lines running parallel with the base and with one of the sides, and having pivoted to its upper vertex one end of a straight bar, so that one of the edges of the same shall be exactly in line with said vertex, as is herein-after fully set forth.

In the annexed drawing is shown an isosceles triangle, divided, vertically, into sixty equal spaces by a series of lines, *a*, running parallel with the base A, and transversely into two hundred equal spaces by means of a series of lines, *b*, placed parallel with the side B.

The horizontal lines *a* are successively numbered from the upper end downward, by means of a numeral placed immediately opposite the left-hand end of each, while the intersecting lines *b* are also numbered from the left to the right, commencing with "1" at B.

For convenience, a series of numbers for said lines *b* extends across the triangle in every third space between the lines *a*, which numbers indicate every tenth line only, although, if desired, a larger proportion of the lines may be numbered.

Pivoted at one end of the upper vertex C of the triangle is a thin bar, D, the inner edge of which is brought exactly in line with said vertex by means of a projecting lug, *d*, through which the pivot passes.

As thus constructed the device is complete, and is operated as follows:

In order to find the cost of the fractional part of a bushel of grain at a given price per bushel, the horizontal line *a*, corresponding in number with the weight

in pounds of said bushel of grain, is found, and the bar adjusted so as to bring its inner edge exactly at the point where the line *b*, corresponding in number with the price in cents of said bushel, intersects the before-mentioned line *a*.

If, now, the horizontal line corresponding in number with the weight in pounds of the fractional part of said bushel be selected and traced across to its intersection with the bar, the line *b* immediately beneath will give the price in cents of such fractional part.

As an instance, the bar is adjusted in the drawing so as to intersect the lower line No. 60 at the point where the one hundred and fiftieth line *b* crosses the same, which would give \$1.50 as the price of a bushel of wheat (having sixty pounds.) By following the edge of the bar upward it will be found that, at the point where it intersects the lines *a* and *b*, the number upon the latter will give the price in cents of the number of pounds represented by the former, as, for instance, forty-eight pounds, \$1.20; forty pounds, \$1.00; thirty pounds seventy-five cents; twenty pounds, fifty cents, &c.

By this device the value of the fractional part of any article represented by a given number of pounds at a given price can be easily and accurately ascertained, whereby the labors of those engaged in receiving and weighing grain are much lessened, and, as it is simple in construction, and can be furnished at a small cost, it is believed that general use would follow its introduction to the public.

Having thus fully set forth the nature and merits of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The isosceles triangle C B D, having one of its sides equally divided and indexed to show the weight in pounds of a bushel of any article, and its base divided and indexed to show prices, in combination with the bar D, pivoted at the vertex of the triangle, all constructed, arranged, and operated as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 3d day of November, 1869.

ALEXANDER BRODIE.

Witnesses:

ALBERT FAX,
J. T. WELPER.