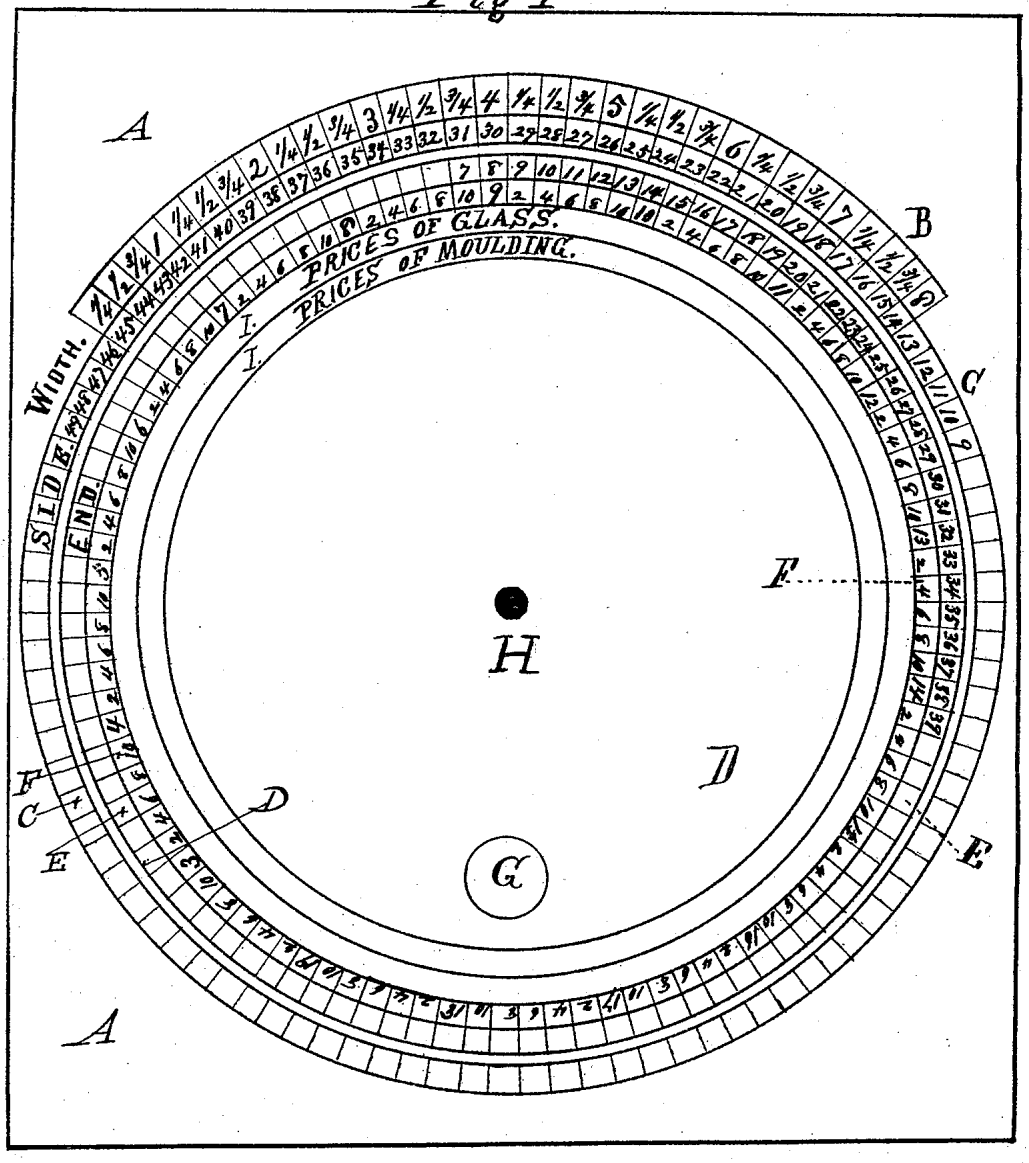
2 Sheets—Sheet 1.

B. KILBOURN.

CALCULATORS FOR MANUFACTURERS OF PICTURE-FRAMES.

No. 172,270. Patented Jan. 18, 1876.

Fig 1



Witness,
Chas. H St. John
D L Read

Beecher Kilbourn
Inventor
per E B Stocking
Atty.

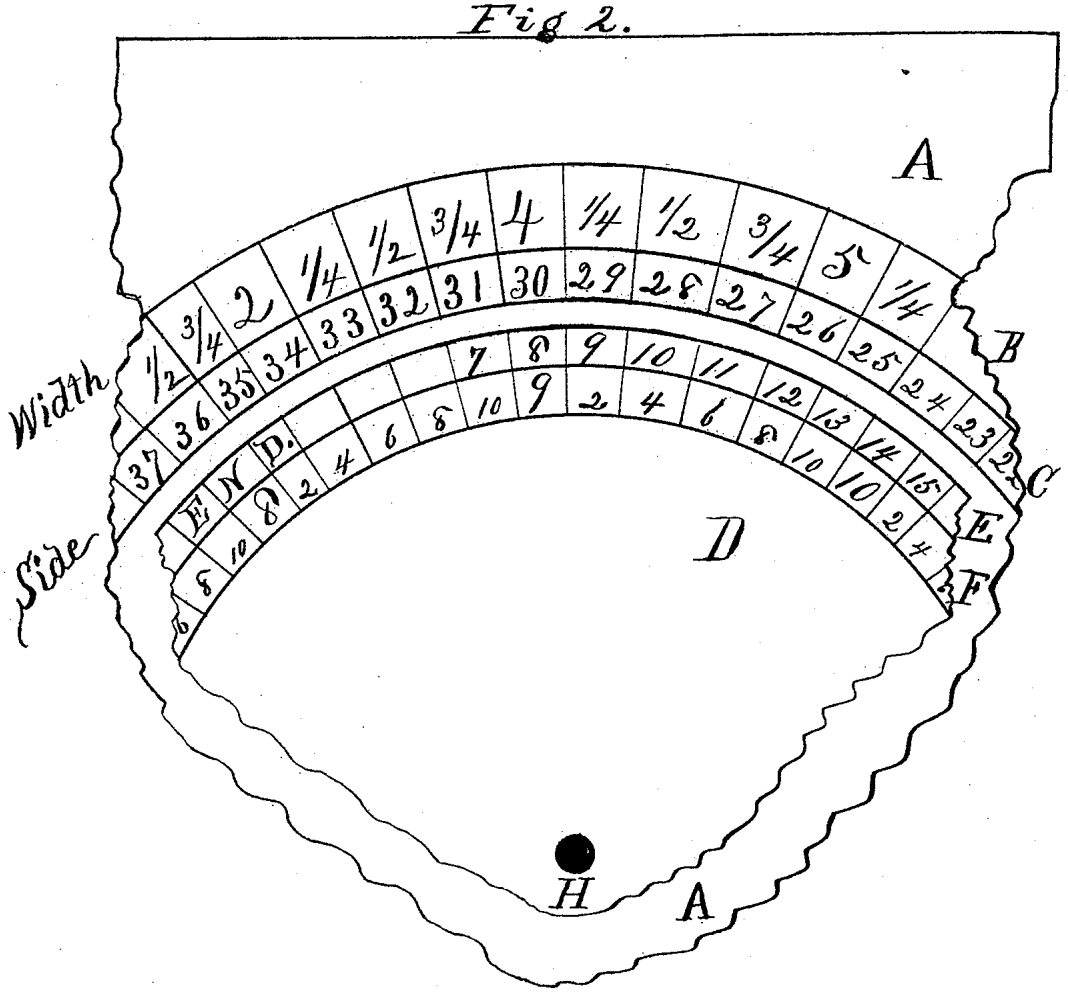
2 Sheets—Sheet 2.

B. KILBOURN.

CALCULATORS FOR MANUFACTURERS OF PICTURE-FRAMES.

No. 172,270. Patented Jan. 18, 1876.

Fig 2.



Witness
Chas. H. St. John
D. L. Read

Becher Kilbourn
Inventor,
per E. B. Stocking
atty.

UNITED STATES PATENT OFFICE.

BEECHER KILBOURN, OF RICHFIELD SPRINGS, NEW YORK.

IMPROVEMENT IN CALCULATORS FOR MANUFACTURERS OF PICTURE-FRAMES.

Specification forming part of Letters Patent No. **172,270**, dated January 18, 1876; application filed August 6, 1875.

To all whom it may concern:

Be it known that I, BEECHER KILBOURN, of the town of Richfield Springs, county of Otsego and State of New York, have invented a scale for the ready and accurate computation of the amount of the linear and board measure feet of molding in picture-frames; and I hereby declare that the following is a true and full description of my invention, reference being had to the accompanying drawing as a part of this specification, in which—

Figure 1 is full, and Fig. 2 a partial, plan view.

I construct my scale in the following manner: Upon a suitable card, A, Fig. 1 of the drawing, I print the scale of inches and parts of inches in the subdivisions of the arc B, which figures indicate the width of molding used in the construction of the frame, the amount of stock or molding in which is to be ascertained upon the same card A, and in a corresponding curve under and adjacent to said arc B I construct and equally subdivide the arc C, in whose subdivisions I place the consecutive numbers, which represent and indicate the dimension of the frame in its length or breadth in inches. Now, upon the movable card D, and at its outer circular edge, I print the consecutive numbers in equal subdivisions, and similar spaces to those above and below mentioned, which arc and numbers E indicate and represent the dimension of the frame in its opposite direction, and adjacent to and beneath or inside of said last-mentioned arc E I print the arc F, with its consecutive numbers in similar subdivisions, indicating (the larger figures) feet and (the smaller figures) inches, and representing the total number of feet in any frame to be constructed. I now attach the card D at its center to the center of the circle of the arc B of the main card A by means of an eyelet or rivet, H, and puncture the hole G as a means of moving the card D around its center H.

The operation of my invention is as follows: I find on the edge of the movable card D, in the arc E, the length of the end of the frame. I place this figure under the figure in the arc C representing the length of the side of the frame. Now, in the arc B I find the width of the molding, and directly under this on the arc F I find the total in inches, and the number of feet to be added is found at the next large figure at the left of the inches. For example, a frame eighteen by twenty inches of three and one-fourth inch molding, wanted the total length of molding in the frame. Placing 18 on the outer edge of card D, under 20 on arc C, I find under $3\frac{1}{4}$ of arc B, 6 in arc F, and to the left of such 6 I find 8—that is, there are necessarily used in constructing such frame, waste at the corners included, a strip of three and one-fourth inch molding eight feet and six inches long. I also construct inside the arc F the blank arcs I I shown in the drawing, for the purpose of inserting a list of prices for the molding, and also for the glass commonly used with pictures, in order that their cost can be computed at the same time as the quantity of molding required.

My invention saves time, and makes an error impossible, if the scale is used according to the directions printed thereon.

I claim—

The combination of a fixed and a movable chart, the one bearing scales of one of the necessary dimensions of a frame, and also the width of the molding, and the other chart bearing a scale of the other dimension of the frame, and one or more series of results, all separated by suitable indexial lines, substantially as and for the purpose set forth.

BEECHER KILBOURN.

Witnesses:

H. C. WATSON,

A. R. ELWOOD.