Dec. 26, 1922. 1,439,938

A. L. BECK.
LUMBER CALCULATOR.
FILED DEC. 16, 1921.

2 SHEETS-SHEET 1

Fig. 1.

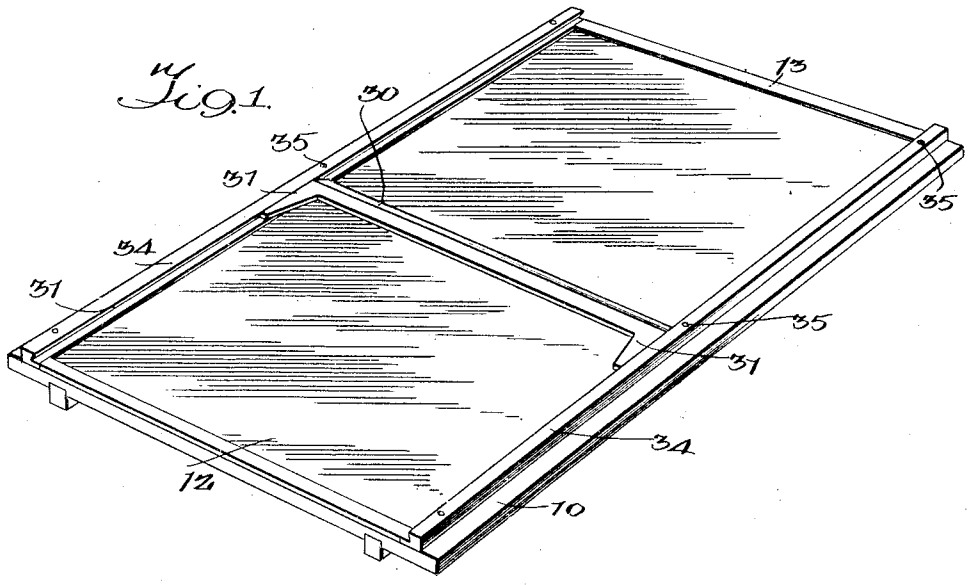


Fig. 4.

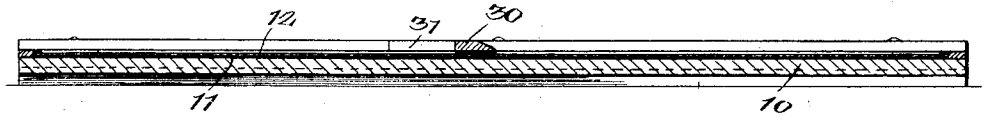


Fig. 5.



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2 SHEETS-SHEET 2

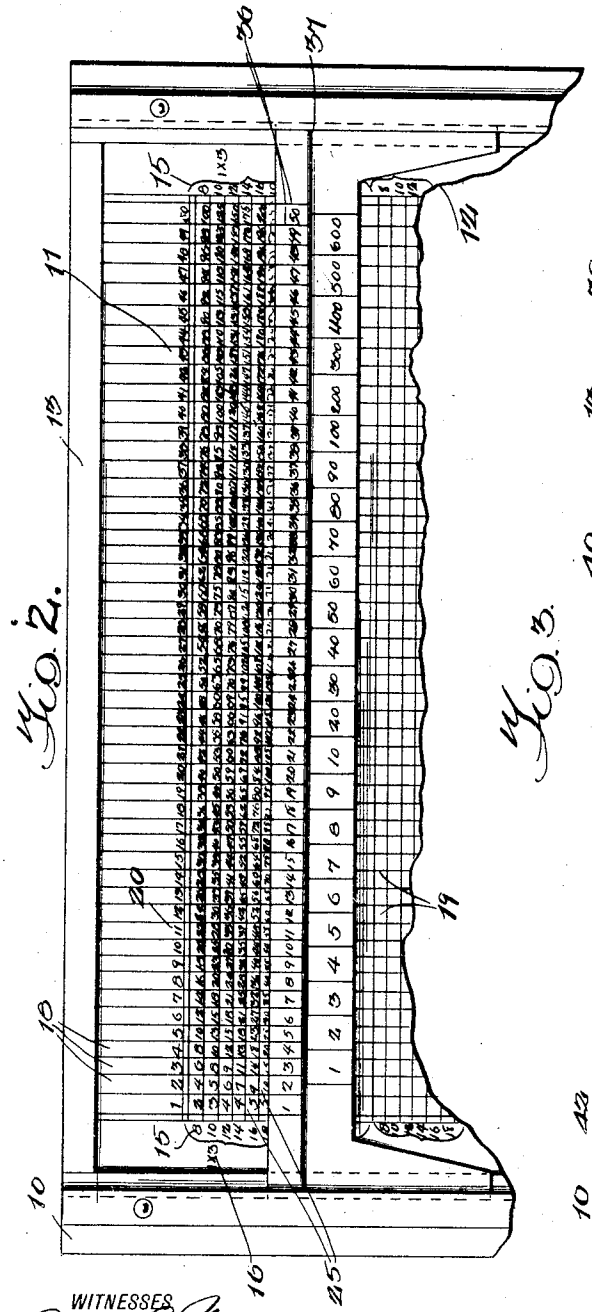


Fig. 2.

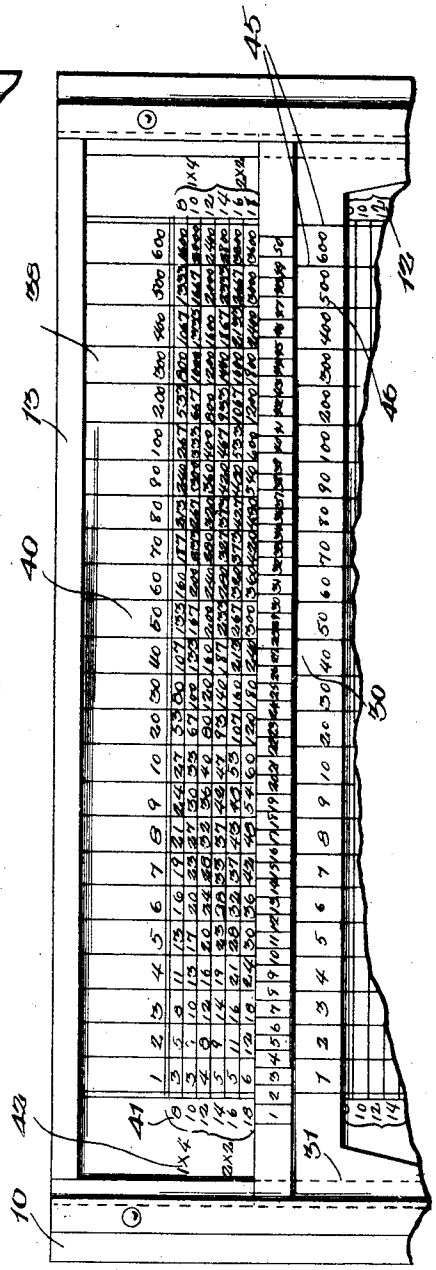


Fig. 3.

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Patented Dec. 26, 1922. 1,439,938

UNITED STATES PATENT OFFICE.

ANDREW LEE BECK, OF ORLANDO, FLORIDA.

LUMBER CALCULATOR.

Application filed December 16, 1921. Serial No. 522,815.

To all whom it may concern:

Be it known that I, ANDREW LEE BECK, a citizen of the United States, and a resident of Orlando, in the county of Orange and State of Florida, have invented certain new and useful Improvements in Lumber Calculators, of which the following is a specification.

This invention relates in general to calculators, and more particularly to a lumber calculator.

The object of the invention is to provide a calculator of this character which enables the user to ascertain the number of board feet contained in any given number of pieces of lumber of any given dimensions without the necessity of carrying any tedious and difficult mathematical calculations or processes involving special knowledge and skill.

Another object is to provide a calculator of this character which is of extremely simple and durable construction, which is adaptable to the needs of various persons dealing in lumber, which may be used with facility and accuracy by a person of ordinary intelligence and which is easy and comparatively inexpensive to manufacture.

Other objects and advantages of the invention reside in certain novel features of construction, combination and arrangement of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming part of this specification, and in which:

Figure 1 is a perspective view of the calculator, the details of the table being omitted;

Figure 2 is an enlarged fragmentary view in plan with some of the numbers applied and illustrating the construction of the table;

Figure 3 is a similar view, illustrating a slightly modified form of table;

Figure 4 is a view in longitudinal section; and

Figure 5 is a view in transverse section.

Referring to the drawings wherein for the sake of illustration is shown the preferred embodiment of the invention, it will be seen that the invention is shown as embodied in a tabular calculator of the sheet type wherein the numeral 10 designates the frame. A table in the form of a rectangular sheet 11 is set in the frame and is covered by a panel of glass 12 which is maintained in position by means of strips 13 and suitable brads or other fastening means (not shown).

The table comprises a plurality of groups of figures arranged in vertical columns and designated at 15, as shown in Figure 2. The figures of the groups correspond to the various lengths in feet in which the lumber of the group comes. Adjacent each group a set of figures or a plurality of sets of figures such as designated at 16 is arranged, and these figures represent in inches the widths and thicknesses in which the lumber of the adjacent group comes. As shown in Figure 2 the columns constituted by the groups 15 and the figures 16 are preferably provided in duplicate on each side of the sheet.

The sheet is provided with a plurality of spaced parallel vertical lines 18 and a plurality of spaced horizontal lines 19, the vertical lines extending from the top to the bottom of the sheet and the horizontal lines extending between the columns constituted by the groups 15. At the top of the sheet a series of numbers or figures 20 is arranged in the spaces between the vertical lines 18 and represent the number of pieces of lumber to be figured.

Below the row 20 a plurality of horizontal rows of computed numbers or figures, designated at 25 is provided. These rows 25 are arranged between the horizontal lines 19 and there is provided one such row 25 for each number of each of the groups 15 and the rows 25 are alined with its number of the groups. The numbers of the horizontal rows 25 are also vertically alined, being arranged in the spaces between the lines 18 as well as in the spaces between the lines 19 so that these numbers are also arranged in vertical columns, there being one such column for each number of the horizontal row 20. Each number of the rows 25 represents the quantity of lumber in board feet which is contained in the number of pieces of lumber indicated by the vertically alined figures of the series 20 and of the dimensions corresponding to the number of the group 15 with which it is horizontally alined.

A movable indicator, designated generally at 30 is provided and preferably comprises a bar having enlarged guides 31 at its ends which slidably fit in undercut guideways 32

provided in fixed guide bars 34 secured by screws 35 or the like to the frame 10. The indicator 30 is provided with spaced parallel lines 36 which are coincident with lines 18 of the table, and in the spaces between the lines 36 the numbers of a row or series 37 are arranged. These numbers progress from 1 to 50 and correspond to the numbers of the row 20, the like rows of numbers representing the number of pieces to be figured.

If for instance it is desired to ascertain the number of board feet contained in twenty-three pieces of one by three lumber, 18 feet long, the indicator 30 is slid up until its edge is alined with the horizontal row 25 opposite to the number 18 of the one by three group. With the indicator in this position the number of board feet contained in thirty-nine pieces can be ascertained by observing the number in the row 25 immediately above the number 23 of the series of numbers 37 of the indicator and will be found to be 115 board feet. This instance has been merely cited for the sake of illustration and all the calculations are made precisely in the same manner that is by adjusting the movable indicator until its edge is alined with the horizontal row 25 of the group 15 corresponding to the length in feet of lumber and of the group corresponding to the desired width and thickness and then running the eye along the movable indicator until the figure corresponding to the number of pieces is located and observing the number of the row 25 which lies immediately above this number of the movable indicator.

The table above described is best suited for use by small lumber dealers but in order to adapt the invention for use by persons where business is carried on on a larger scale it is only necessary to provide a form of table of the nature shown in Figure 3. The invention is in all other respects precisely the same and only the form of the table varies. In this form of table the series of rows of figures which correspond to the number of pieces of lumber do not increase in increments of one as in the foregoing embodiment but increase in increments of one from one to 10 and in increments of 10 from 10 to 100 and in increments of 100 from 100 to 600, etc. This series in this embodiment is indicated at 40. On the sides of the table the groups are provided designated at 41 corresponding to the groups 15 and figures 42 corresponding to the figures 16 are arranged adjacent each group. The body of the table consists of computed figures or numbers arranged in horizontal rows and in vertical alinement as in the previous embodiment of the invention but the computed numbers are of course in accordance with the numbers 40.

When this form of table is used the sheet 11 is removed and the sheet 38 with the table 39 is put in place thereof, and the glass panel is replaced. In order that it may coact with this modified form of table, the movable indicator 30 is provided with a second series of spaced parallel lines and of numbers, designated at 45 and 46 respectively and arranged adjacent or along its lower edge. These numbers 46 correspond to the series of numbers 40 and increase by the same increments as these numbers. The operation with this form of table is precisely the same as that previously described, except that the lower edge of the movable indicator is more conveniently utilized.

I claim:

A chart for use as a lumber calculator having a column of numbers arranged in groups along the side thereof and representing the various lengths in which the lumber comes, figures adjacent each group indicating the widths and thicknesses of the lumber of the adjacent group, a series of numbers at the top of the table indicating the pieces of lumber to be figured, and a plurality of horizontal rows of computed numbers arranged in horizontal alinement with the numbers of the groups at the side of the table, the figures of the horizontal rows being also vertically alined with the numbers of the top series, each computed number of each horizontal row representing the quantity of lumber in board feet contained in the number of pieces of lumber indicated by the vertically alined figure of the top series and of the dimensions corresponding to the numbers of the group with which it is horizontally alined.

ANDREW LEE BECK.