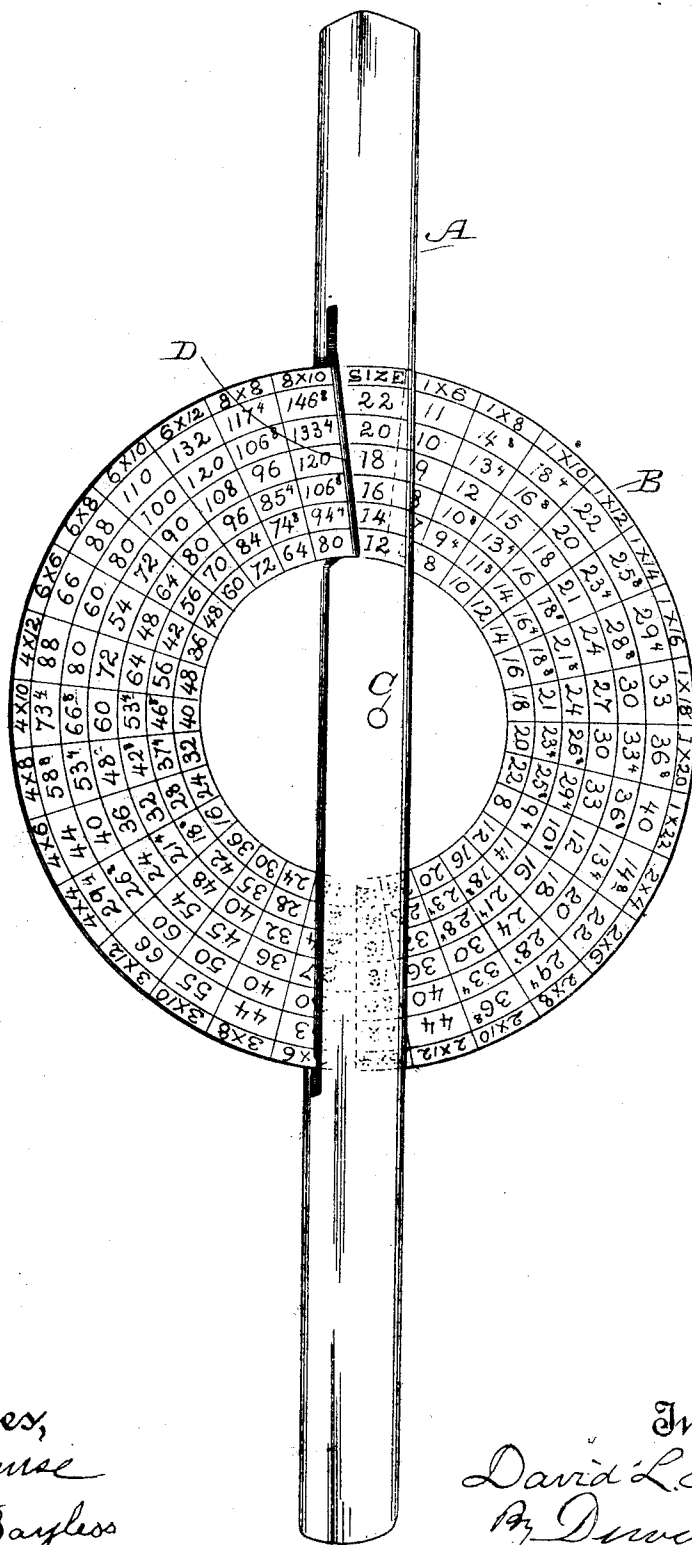


(No Model.)

D. L. ALBERT.
MECHANICAL CALCULATING DEVICE.

No. 502,217.

Patented July 25, 1893.



Witnesses,
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J. A. Bayless

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UNITED STATES PATENT OFFICE.

DAVID L. ALBERT, OF FORT BRAGG, CALIFORNIA.

MECHANICAL CALCULATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 502,217, dated July 25, 1893.

Application filed February 2, 1893. Serial No. 460,772. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. ALBERT, a citizen of the United States, residing at Fort Bragg, county of Mendocino, State of California, have invented an Improvement in Mechanical Calculating Devices; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for mechanically calculating, and it is especially adapted to figuring the contents of lumber, or the wages of men for partial periods where they are paid by the month or other term; and it may also be used for other purposes.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawing, in which the figure is a front view of the device.

A is a bar having a slot made through it adapted to receive the circular card B which is centrally pivoted, as shown at C, so that it may be turned within the slot, the friction being sufficient to retain the card at any point where it is set. Around the periphery of the card, a series of circles are made corresponding with the subdivisions of time or quantity which are to be calculated, and these in turn are divided by radial lines into as many spaces as may be needed for the particular calculation which is to be carried out. In the present case I have shown this device as applied to the ready measurement of lumber. Around the periphery in the outer circle, are marked the principal sizes in transverse section, in which lumber is cut in the particular locality where the apparatus is to be used, running from one by four up to one by twenty-two, then commencing two by four, and running up to the largest size of two inch material, then three inch and so on up to eight, ten, or more, if desired.

Upon the bar, and in line opposite each of the circular divisions, are given the lengths in which the lumber is cut, which in the present case is shown from twelve to twenty-two feet.

In the radial spaces of the card subdivisions, are given the number of feet for the particular size which is to be calculated. As, for instance, if a stick one by ten inches, twenty

feet long, is the subject of calculation, it is only necessary for the inspector to turn the card until this subdivision is at the side of the marked bar, and look at the figures in the radial subdivision under the exterior figures 1 by 10 which shows the width and thickness of the lumber, and in line with the figure upon the handle which shows the length, and the figures on the card opposite the figure indicate that the contents of the stick is sixteen feet eight inches. If the stick to be calculated is eight by ten inches, the card is turned until the figures 8 by 10 are brought by the side of the marked bar, the circular divisions corresponding with the transverse marks upon the handle, and if the stick be eighteen feet long, by looking at the figures on the card in line with the figure 18 on the bar and directly beneath the figures 8 by 10 in the exterior circular division, it will be seen that the area of the stick is one hundred and twenty feet. The handle is of sufficient length to project above and below the card and be conveniently held by the operator.

Upon the side of the bar adjacent to the radial lines of figures which are to be inspected, a section is cut away as shown at D, so as to form a triangular notch of a depth equal to that of the circles upon the cards. This cut away portion is on a line radial to the center about which the card turns, or it may be cut away a little more than that, so that when either of the radial lines upon the card is brought up to the side of the handle it will approximately correspond with this cut away portion, and will thus clearly expose all the figures between the circular lines, and between the two adjacent radial lines which are in proximity with the handle, as it will be seen by looking upon the opposite side of the handle that the figures between the radial lines adjacent to the handle on that side are partially covered by the bar, and that one set cannot be completely exposed without partially exposing the next adjacent ones and causing confusion.

When used for reckoning the time of men who work by the month, the radial divisions of the card correspond with the number of days in the month.

The figures upon the handles correspond with the different rates of wages which are paid per month, as twenty, thirty, forty, fifty, sixty or seventy dollars per month, or other
5 period.

The figures upon the subdivisions of the card interior to the outside circle, represent the wages of a man for any number of days at one of the rates per month which are shown
10 upon the bar. In this manner it is possible to calculate the wages of a large number of men working at different rates, and for different numbers of days with great accuracy.

The device is also especially useful for lumber tallying where the lumber is being loaded
15 into or discharged from a vessel or other means of transportation, and in which various sizes of lumber are being handled, and it insures great accuracy in the tallying.

20 Having thus described my invention, what

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

An improved calculating device consisting of a card having circular and radial subdivisions, with characters therein, a handle extending above and below the card having a slot
25 located inside of its outer ends and adapted to pivotally receive said card, said slot having one of its walls cut away to form a notch whose wall is radial to the center about which
30 the card turns whereby said wall may be aligned with the radial lines of the subdivisions, as herein described.

In witness whereof I have hereunto set my hand.

DAVID L. ALBERT.

Witnesses:

S. H. NOURSE,

GEO. H. STRONG.