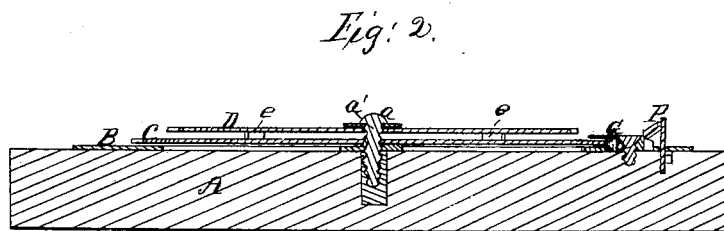
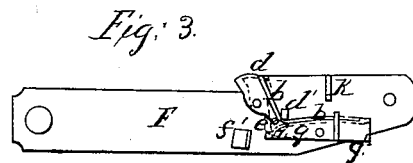
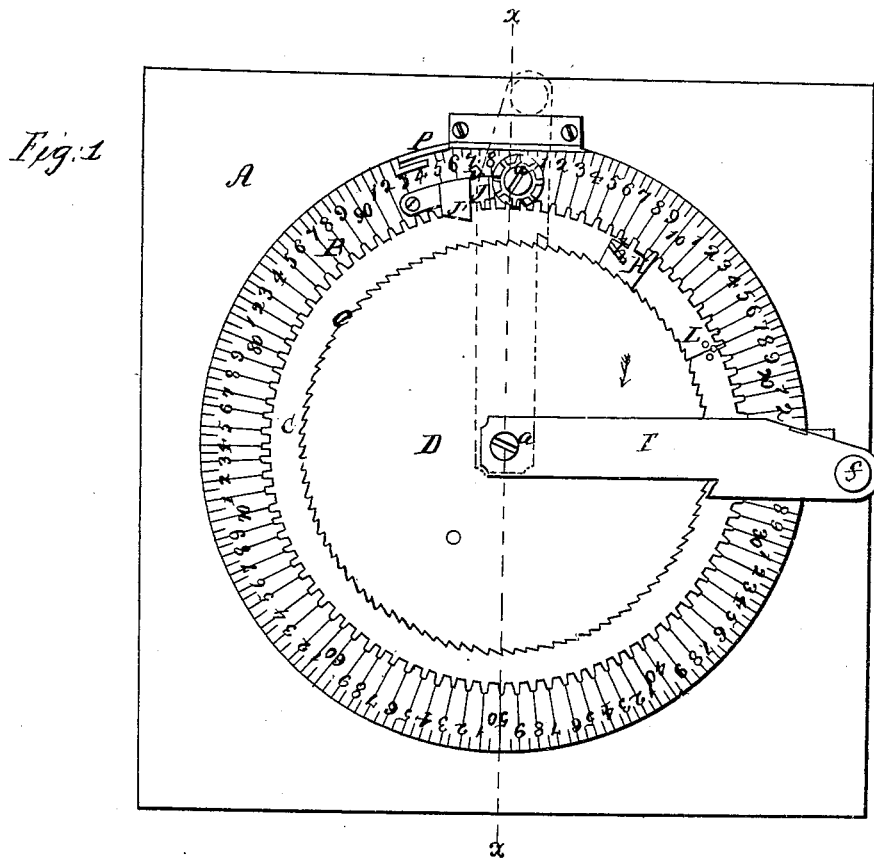


G. R. LEWIS.  
MACHINE FOR TALLYING LUMBER, &c.

No. 48,078.

Patented June 6, 1865.



Witnesses:  
W. H. Sumner  
A. W. McCallum

Inventor:  
G. R. Lewis

# UNITED STATES PATENT OFFICE.

G. R. LEWIS, OF ASHTABULA, OHIO.

## IMPROVEMENT IN MACHINES FOR TALLYING LUMBER, &c.

Specification forming part of Letters Patent No. 48,078, dated June 6, 1865.

*To all whom it may concern:*

Be it known that I, G. R. LEWIS, of Ashtabula, in the county of Ashtabula and State of Ohio, have invented a certain new and Improved Machine for Tallying Lumber, &c.; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the machine. Fig. 2 is a transverse section in the direction of the line *x x* in Fig. 1. Fig. 3 represents a detached section.

Like letters of reference denote like parts in the several views.

My improvement relates to a machine for tallying lumber, weights, measures, &c., described as follows:

A, Figs. 1 and 2, represents a table, on which is arranged and secured a circular index, B, divided off and counting numerically one hundred, with the semi-divisions indicated as represented.

D is a primary and C a secondary disk. The disk C fits down close on the index, and has one hundred teeth around the edge, answering to the divisions on the index. Around the disk D are likewise the same number of teeth.

F is an indicator, and *f* a knob on the outer end of it, by which it is moved round.

The primary and secondary disks, with the indicator, are secured and held in place by a screw, *a*, in the center, that extends down into the table, as shown in Fig. 2, holding them in place in the desired manner. Around the upper part of the screw is a washer, *a'*, which rests on the face of the disk D, and, being thicker than the plate of the indicator that surrounds it, it will project above, and the head of the screw will come down closely on it, pressing the washer on the plate or disk D, thereby holding the disk and allowing the indicator to move round independent of it.

*e* represents studs that project down underneath the disk D and press on the disk C, thereby aiding to hold it in place.

On the under side of the indicator F, as represented in Fig. 3, is an arrangement of devices that consist of a catch, *d*, and arm *g*, pivoted to the plate, forming the indicator, with a spring, *b*, one end of which fits into a notch

near the end of the arm *g*, and extends along one side of the arm round a stud, *d'*, and comes against one side of the catch *d*, by which the catch is operated, or moved in and out of the teeth on the disk D, in the manner described, as follows: When the indicator is in place on the machine, by moving it round against a stop, *p*, (secured in the table at the edge of the index,) the end *g'* of the arm *g* is moved inward and the other end outward, which releases the heel *e* of the catch *d* from the catch *i* of the arm, when the catch *d* will spring into the position shown in Fig. 3, or into the teeth of the disk. The disk can then be carried round by the indicator in the direction of the arrow, and when the indicator is reversed or moved backward the shape of the teeth, with the pressure as the catch *d* slips back, moves the catch so that it springs into the position indicated by the dotted lines in Fig. 3, when the heel *e* catches in the end of the arm *g*, where it is held, being entirely released from the teeth of the disk and prevented from rubbing against them, as it otherwise would. The indicator is kept down in place at the outer end by a hook, *f'*, that fits under the edge of the disk D.

*k* is a cam pendent from the indicator, that moves round on the outer edge of the index and up on the stop *p*, which answers the purpose of a slide to elevate the indicator above the catch J and cam J', so as not to move them in passing round.

J is an adjustable catch, pivoted at one end to the index and table, the catch fitting between the teeth of the disk C, as shown in Fig. 1, which aids in holding this disk firmly in place while the primary disk is being turned round.

*j'* is a curved slot, which allows the catch J to be moved out of the teeth when it is required to turn the disk C.

J' is a cam on the catch. G is a pinion secured to the table, that works in the teeth of the disk C.

H is a pointer secured to the primary wheel D, and moves with it, pointing out on the index the amount or sum added up to one hundred.

*h* is a cam on this pointer, and every time the disk D moves round the cam *h* comes against the cam J' and turns it so as to remove the catch from between the teeth. Just when the gear is thus released from the catch the pointer *h* comes against a tooth of the pinion G and

turns it so as to move the secondary disk around one tooth, when the catch J springs into place between the next two teeth, there being a spring connected with the catch for this purpose. When the secondary disk is moved in this manner, indicating that one hundred has been counted, it is noted on the index by the pointer L on the disk C.

The manner of tallying feet, weights, measures, &c., by this machine is as follows: In beginning to count a series of numbers the pointer H must be placed at number 1 and the indicator F moved back until the arm *g* comes against the catch *p*, which springs the catch *d* into the teeth of the primary disk D. Then, if 10 is the first number, move the indicator which turns the primary disk until it is even with 10. If 13 is the next number, carry back the indicator, the catch *d* being released from the teeth, as before described, to the stop *p*, when the catch will again spring between the teeth of the disk; then move the indicator to number 13, which would be to number 3 on the other side of 10, moving the pointer H the same distance that would note on the index twenty-three feet. If 10 is the next number, move back the indicator, as before, and carry it round again to 10, which would move the pointer H the same distance in advance, counting thirty-three feet, and so

on until a hundred could be counted by a single revolution of the primary disk. The hundreds are noted by the secondary disk C, for every time the disk D moves round once, it turns the disk C, by the means before stated, the distance of one tooth, which is noted on the index by the pointer L. In this manner any amount of numbers up to ten thousand can be readily added; likewise, also, any half-numbers that may occur by the semi-divisions or short lines on the index.

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

1. The disks C and D, in combination with the index B and indicator F, as and for the purpose set forth.
2. The catch *d*, arm *g*, and spring *b*, in combination with the indicator and disk D, as and for the purpose set forth.
3. The cam *J'*, with the catch J and pinion G, in combination with the disk C and cam *h*, as and for the purpose set forth.
4. The slide *p* and cam *k*, in combination with the indicator F and disks, as and for the purpose set forth.

G. R. LEWIS.

Witnesses:

W. H. BURRIDGE,  
A. W. McCLELLANS.