(No Model.)

A. M. BURNHAM.

COUNTING ATTACHMENT FOR MACHINES.

No. 317,438. Patented May 5, 1885.

Fig. 1.

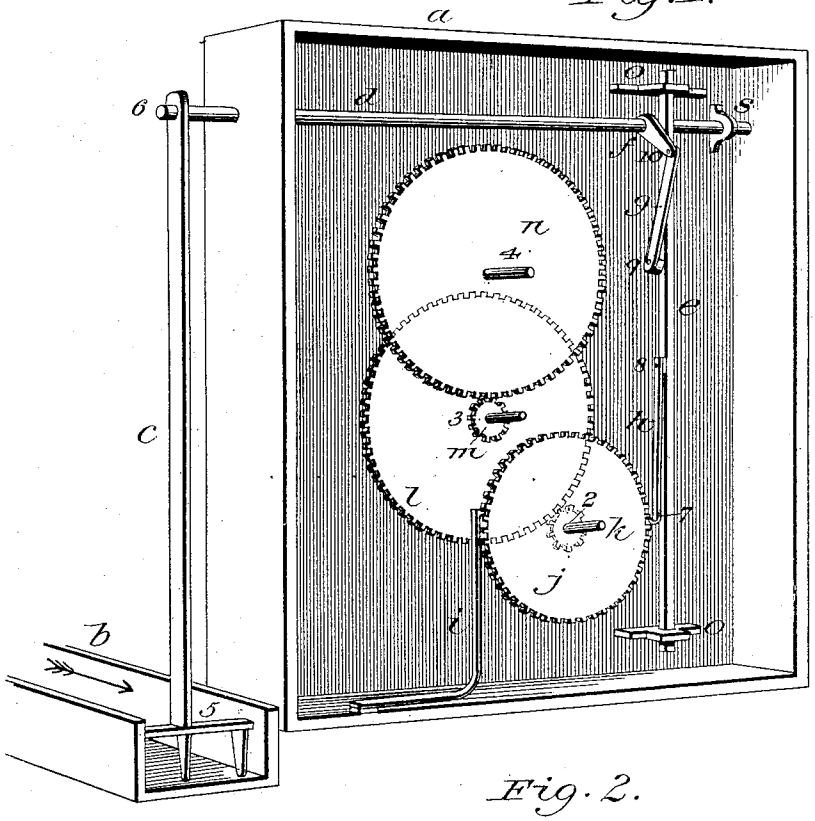
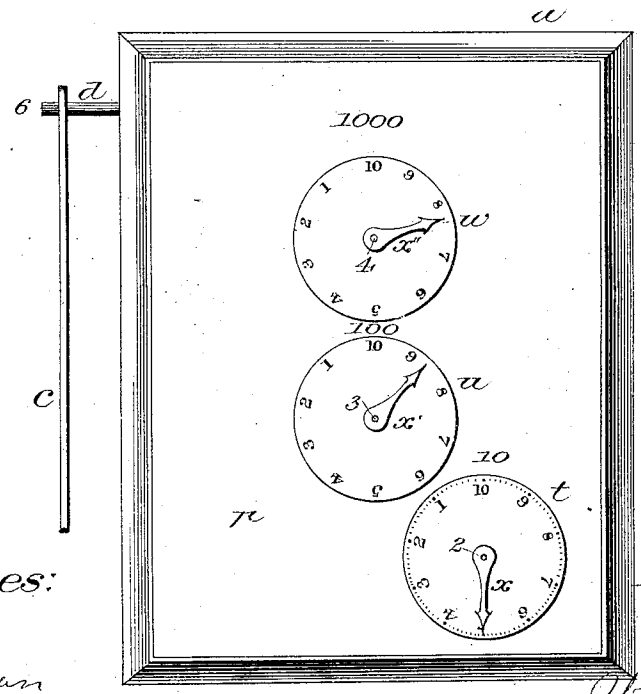


Fig. 2.



Witnesses:
E. S. Fogg
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By his Atty.
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UNITED STATES PATENT OFFICE.

ARTHUR M. BURNHAM, OF GARDINER, ASSIGNOR TO JOSEPH R. BODWELL, OF HALLOWELL, MAINE.

COUNTING ATTACHMENT FOR MACHINES.

SPECIFICATION forming part of Letters Patent No. 317,438, dated May 5, 1885.

Application filed January 14, 1885. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. BURNHAM, of Gardiner, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Counting-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 shows the working-parts of invention, which are inclosed in a box; and Fig. 2 shows the dials and indicators.

Like letters of reference indicate like parts.

The object of my invention is to construct a counting machine which may be readily attached to another machine for the purpose of accurately counting any small articles, as wedges and the like. It is particularly designed to be attached to "machines for making wedges," patented by me April 29, 1884, No. 297,563; but it may be used in connection with other machines to count small articles or to count cakes of ice, &c.

In the drawings, *a* is a box inclosing the working-parts and having the dials and indicators thereon.

b is a trough along which the articles to be counted pass.

c is an arm extending downward into the trough, the lower end 5, coming near the bottom thereof. This arm is secured at 6 to the spindle *d*. These parts are common to both figures.

In Fig. 1 the spindle *d* is shown passing inside the box *a*, and working in the bearings *s s*. Upon this spindle is a short arm, *f*, secured at nearly a right angle with the rod *e*. The rod *e* works loosely in the bearings *o o*, and has upon it the spring *h*, secured thereto at 8. The other end of this spring is a catch, 7.

g is a short link, connecting the arm *f* to the rod *e* at 10 9.

j is a wheel, rigid on the spindle 2, and having teeth cut in the outer edge.

i is a spring-pawl, which engages the teeth on the wheel *j* and holds it steady.

k is a small cog-wheel, also rigid on the spindle 2, and engaging the cog-wheel *l*, which is rigid on the spindle 3. *m* is another small cog-wheel rigid on the spindle 3, and engaging the cog-wheel *n*, which is rigid on the spindle 4. The spindles 2, 3, and 4 project through the face P, and have the indicators *x x' x''* thereon.

The face P has three dials, *t u w*, thereon. The dial *t* is divided into ten (10) spaces, and each of these into ten (10), so that it can be read to units. The indicator *x* is attached to the spindle 2, *x'* to 3, and *x''* to 4. The dials *u* and *w* are each divided into ten (10) spaces.

To exclude the dust, the face P may be covered with a glass.

The whole operates as follows: A wedge from the machine passes down the trough *b* in the direction indicated by the arrow. It strikes the lower end of the arm at 5 and swings it far enough to allow the wedge to pass. This turns the spindle *d* and arm *f*, this arm being connected by the link *g* to the rod *e*, the rod *e* is raised, the catch 7, engaging a tooth on the wheel *j*, carries that wheel around one notch, where it is held by the spring-pawl *i*. As soon as the wedge passes the arm *c*, it swings back into place, the rod *e* drops, and the catch 7 engages the next tooth. The wheel *k* is one-tenth the size of *l*, and *m* one-tenth the size of *n*, so that *x'* indicates hundreds and *x''* thousands.

The rod *e* may be operated in various ways to accomplish the same result, and ordinary dogs worked by springs may be substituted for *h* and *i*.

What I claim as my invention is—

1. In a counting-machine, the arm *c*, and spindle *d*, having the arm *f* thereon, in combination with the rod *e* and wheel *j*, connected and operated by the link *g*, spring *h*, and pawl *i*, as described.

2. In a counting-machine, the arm *c*, spindle *d* with arm *f* thereon, rod *e*, and wheel *j*, all connected and operating as set forth in combination with suitable indicators for the purposes specified.

In testimony whereof I have in the presence of two witnesses subscribed the foregoing specification.

ARTHUR M. BURNHAM.

Witnesses:

WINFIELD S. CHOATE,

CHAS. GIFFORD.