2. Sheets. Sheet 1.

# C. N. Baldwin,

## Boring Wood.

No. 108,552. Patented Oct. 25. 1870.

Fig. 1.

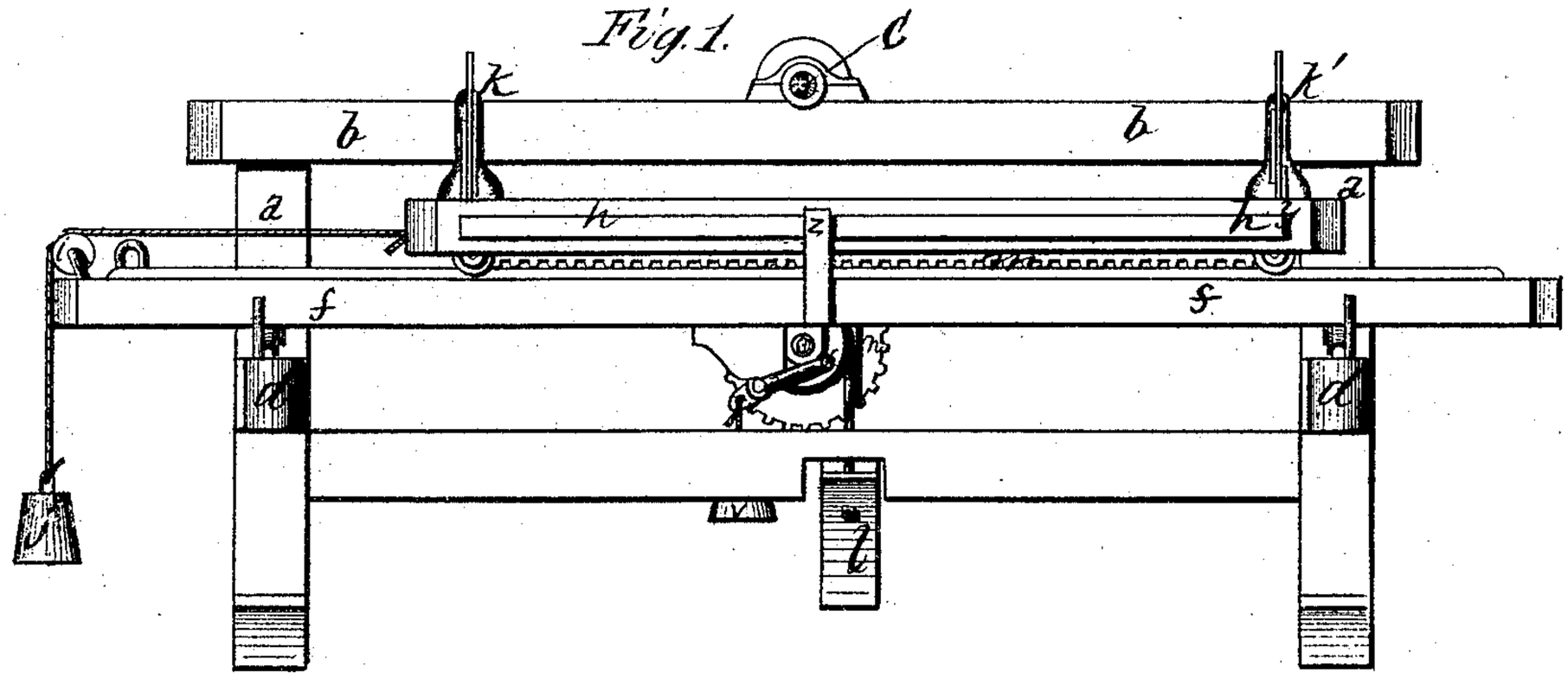
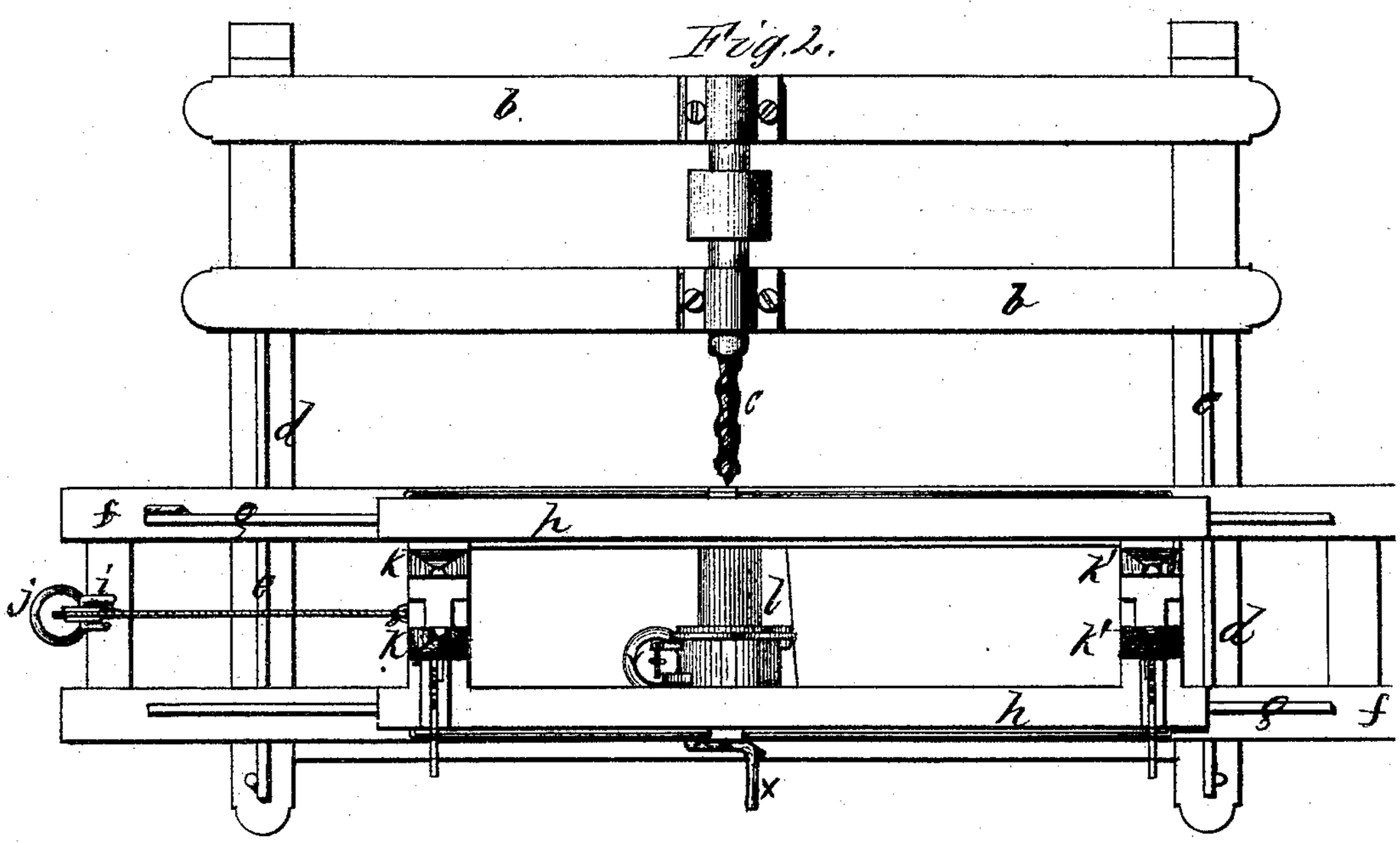



Fig. 2.




Witnesses.

George G. Gill

Edward E. Marvin

Inventor.

C. N. Baldwin,

By Ellis & Gunn

Attys

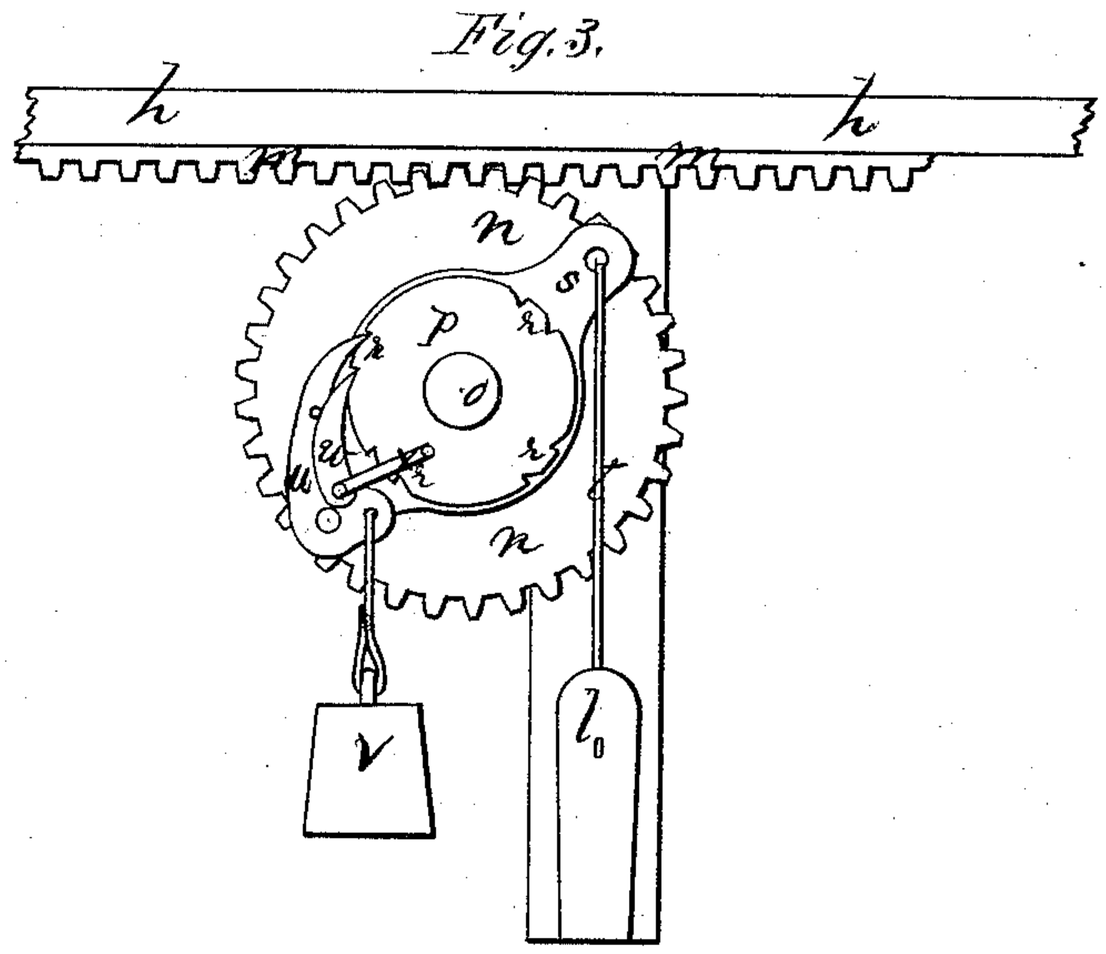
2. Sheets. Sheet 2.

# C. N. Baldwin,

## Boring Wood.

No. 108,552. Patented Oct. 25. 1870.

Fig. 3.




Witnesses.

George G. Sill

Edward Ellaroon

Inventor.

C. N. Baldwin

By Ellis & Emmons

Attys.

# United States Patent Office.

CHARLES N. BALDWIN, OF WILLINGTON, CONNECTICUT.

Letters Patent No. 108,552, dated October 25, 1870.

## IMPROVEMENT IN BORING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES N. BALDWIN, of Willington, in the county of Tolland and State of Connecticut, have invented certain improvements in Machines for Boring Post-holes, of which the following is a specification.

*Nature and Objects of the Invention.*

This invention relates to that class of machines which is designed especially for boring holes in posts for the reception of the ends of the rails, and consists in certain details of construction which will be fully described hereinafter.

*Description of the Accompanying Drawing.*

Figure 1 is a side elevation.

Figure 2 is a plan view.

Figure 3 is a detached view of the pawl-and-ratchet device.

Like letters indicate like parts.

*General Description.*

The letters *d d* designate two of the four wooden uprights which support the top pieces *b b*, upon which is the swiftly-revolving auger *c*.

About half way up the uprights *b b* are the cross-pieces *d d*, upon which are laid the tracks or ways *e e*.

Upon these tracks runs the lower platform *f f*, pulleys in its under side running on the tracks.

On the top of this lower platform are laid the tracks or ways *g g*, upon which runs, by means of pulleys, the upper platform *k*, which tends to run in the direction of the pulley *i*, being drawn by the weight *j*, and the attaching-cord.

To the top of the upper platform is fixed a grasping device, for holding the posts. It consists of two sets of jams *k k*, *k' k'*, operated by a ratchet and lever.

The post to be bored is grasped by these jams, the top of the post just coming through the jams *k'*, and no more.

The movement of this upper platform is regulated by the pawl-and-ratchet device shown in fig. 3. The post being fixed in the jams, as just described, the auger will be ready for the top one of the two auger-holes necessary for each post-hole.

To bore a hole, the lower platform is pushed forward till the auger runs through the post. It is then drawn back, and a step upon the treadle *l* moves the upper platform along just far enough to bore the second auger-hole of the first post-hole. The next step on the treadle carries the post along into position for boring the first auger-hole for the second post-hole, and so on.

Affixed to the bottom of the upper platform is the rack *m*, into which gears the cog-wheel *n*, fixed on the shaft *o*.

On the same shaft is fixed a small solid cylinder, *p*, having ratchet-catches (in this case four sets for four post-holes) upon it at equidistant intervals, two catches upon each interval, $r^1$ $r^2$ $r^3$ $r^4$.

On this same shaft, between the cog-wheel *n* and the solid cylinder *p*, is a loose arm, *s*, one end of which is attached to the treadle by means of the rod *t*.

To the other end of the loose arm is affixed the pawl *u*, kept down upon the cylinder *p* by the weight *v*. As the arm *s* is vibrated by the foot upon the treadle, the pawl moves back and catches into another notch in the cylinder, and moves it around, moving the cog-wheel, and, of course, the upper platform.

The stationary pawl *z* holds the cylinder *p* from turning back again when once turned by the loose pawl.

The intervals between the catches $r^1$, &c., as well as their number, will be regulated by the number of post-holes it is desired to make in a post.

There is an arm, *x*, attached to the stationary pawl *z*, with a hand-crank at the end, by raising which, when the post-holes for a single post have all been bored, both of the pawls will be raised off the cylinder, and the upper platform allowed to run back into position for another post.

The stationary pawl raises the loose pawl, when itself raised, by means of a little pin, projecting from the side of the loose pawl, against which the back of the stationary pawl strikes.

All the parts not specifically claimed herein are old.

*Claims.*

1. The ratchet-and-pawl device described, consisting of the shaft *o*, notched cylinder *p*, loose arm *s*, pawls *u w*, weight *v*, and treadle *l*, when the parts are arranged as described, for the purpose set forth.

2. The combination of the device above claimed, with the gear-wheel *n*, and rack-bar *m*, as described.

CHARLES N. BALDWIN.

Witnesses:

SOLYMAN TAYLOR,

EDWARD F. KENT.