

N.R. Merchant,
Boring Wood,
N^o 32,449, Patented May 28, 1861.

Fig. 1

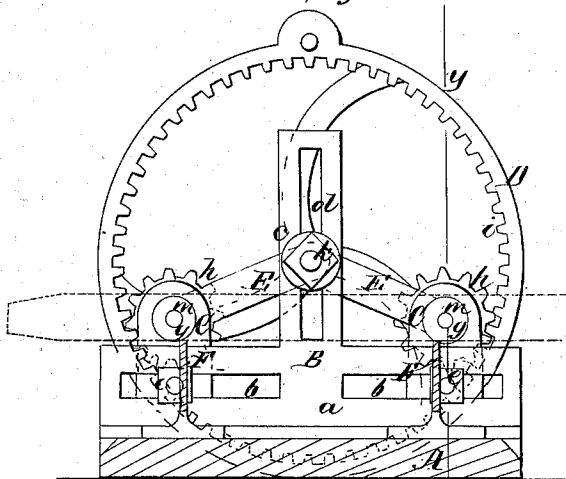
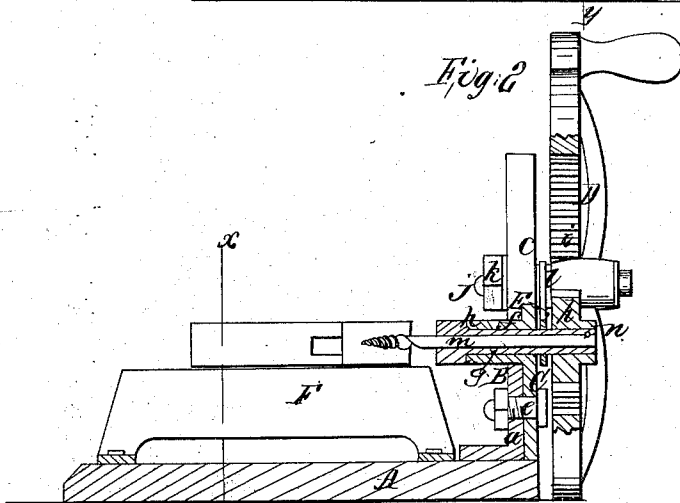


Fig. 2



Witnesses:

*J. W. Coombs,
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UNITED STATES PATENT OFFICE.

N. R. MERCHANT, OF GUILFORD, NEW YORK, ASSIGNOR TO HIMSELF AND A. P. MERCHANT,
OF GUILFORD, NEW YORK.

BORING-MACHINE.

Specification of Letters Patent No. 32,449, dated May 28, 1861.

To all whom it may concern:

Be it known that I, N. R. MERCHANT, of Guilford, in the county of Chenango and State of New York, have invented a new and Improved Machine for Boring Holes for Dowels Designed Chiefly for the Use of Coopers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical section of my invention taken in the line *x, x*, Fig. 2. Fig. 2, a longitudinal vertical section of the same, taken in the line *y, y*, Fig. 1. Fig. 3, a detached transverse section of one of the auger arbors *z, z*, Fig. 2, indicating the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a simple and efficient machine for boring holes for dowels, designed chiefly for the use of coopers for boring the pieces of cask heads which are connected by dowels.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe.

A. represents a bed plate at one end of which a frame B. is permanently secured. This frame may be described as being formed of a horizontal plate *a*, slotted as shown at *b, b*, and having a vertical upright plate *c*, at its center which is also slotted as shown at *d*, see Fig. 1.

C. C. are two plates or stands which are secured to the horizontal plate *a*, of the frame B. by bolts *e, e*, said bolts passing through the slots *b, b*, and admitting of the lateral adjustment of the stands C. on the plate *a*. At the upper part of each stand C. there is a bearing *f*, which is simply a tubular projection cast with the stand. These bearings *f*, each receive a tube *g*, at the front ends of which there is a shoulder *h*, and these shoulders bear against the front ends of the bearings, see Fig. 2. On the back end of each tube *g*, there is secured a

pinion *h*, and these pinions gear into a spur wheel D. which is toothed at the inner side of its periphery as shown at *i*, see more particularly Fig. 1.

The axis *j*, of the wheel D. passes through the slot *d*, of the upright plate *c*, of the frame B., and this axis *j*, may be secured at any desired height in plate *c*, by means of a nut *k*, on its front end, which nut fits on a screw thread on the axis and by turning the nut a shoulder *l*, on the axis is drawn firmly in contact with plate *c*.

In each tube *g*, the auger or bit *m*, is placed. The shanks of these augers extend to the back parts of the tubes *g*, and are secured therein by pins or keys *n*, which pass transversely through the tubes *g*, and fit in notches in the shanks of the augers or bits as shown clearly in Fig. 3.

E. E. are two plates through the outer ends of which the tubes *g, g*, pass. The inner ends of these plates are fitted on the axis *j*, of the spur wheel D.

F. F. are two parallel plates or bars secured to the bed plate A. and serving as a support for the work or stuff to be bored; said plates being of such a height as to insure the work or stuff being properly presented to the augers or bits *m, m*.

From the above description it will be seen that by turning the spur wheel D. from right to left the augers or bits *m, m* will be rotated in a similar direction and the work or stuff on being presented to or shoved toward the augers or bits *m, m*, will be bored, two holes being bored simultaneously; and it will also be seen that the holes may be bored at a greater or less distance apart by simply loosening the bolts *e, e*, and the nut *k*, and raising or lowering the axis *j*, and shoving the stands C. C. nearer to or farther from each other, the plates E. E. forming a connection between the axis *j*, and tubes *g, g*, of the stands C. C.

The device may be constructed at a moderate cost and by its use the dowel holes may be expeditiously and accurately bored.

The manner of securing the augers or bits

m, m, in the tubes *g*, and the fitting of the same in the bearings *f*, insure a correct centering of the augers in the bearings.

Having thus described my invention what
5 I claim as new and desire to secure by Letters Patent is—

The combination of the adjustable spur wheel D. and adjustable stands C. C. with

auger bearings *f, f*, attached, said parts being arranged or applied to a slotted frame 10 B. to operate as and for the purpose set forth.

N. R. MERCHANT.

Witnesses:

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