Mooney & Carter,

Boring Hubs.

No. 14,968. Patented May 27, 1856.

Fig. 1.

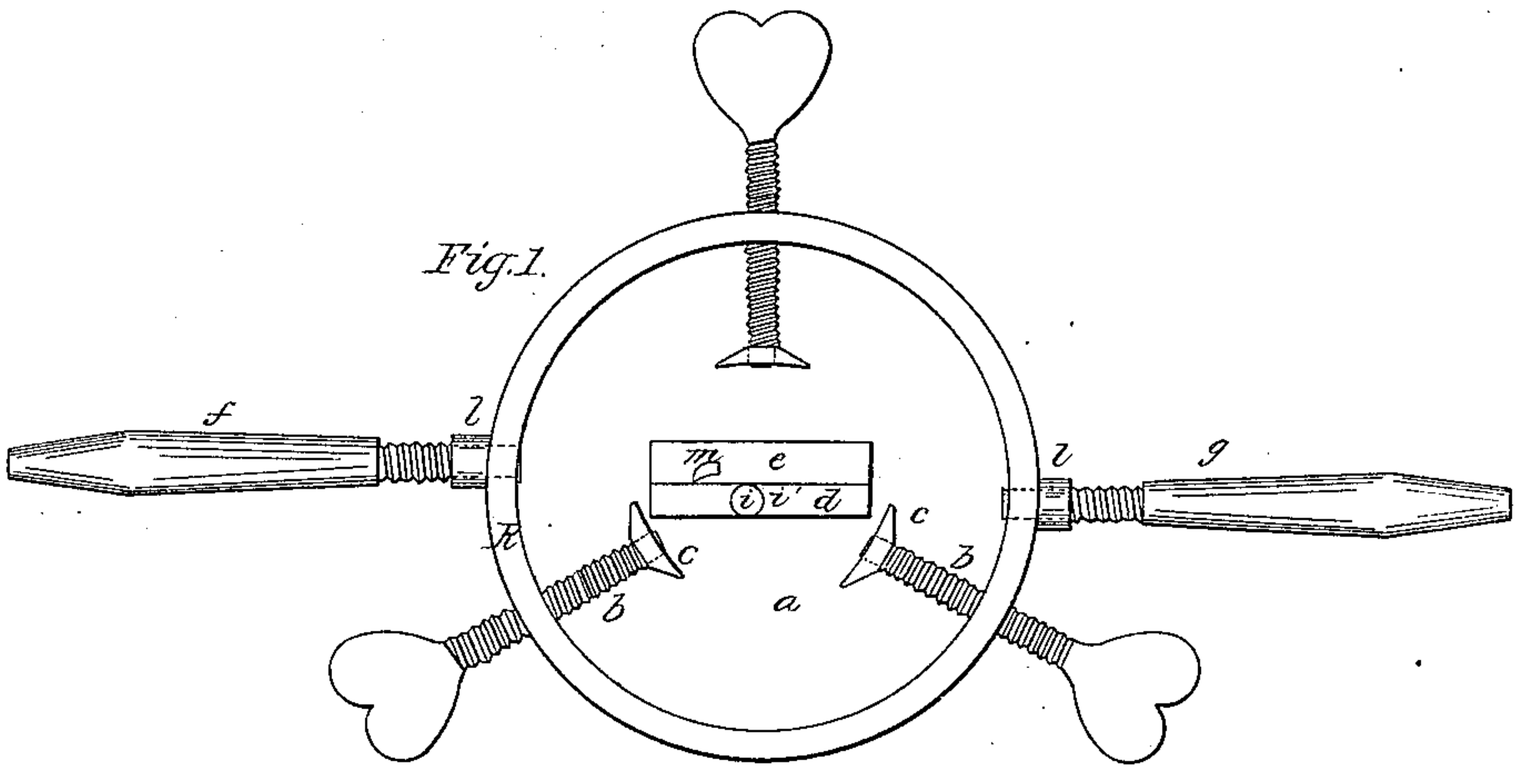


Fig. 2.

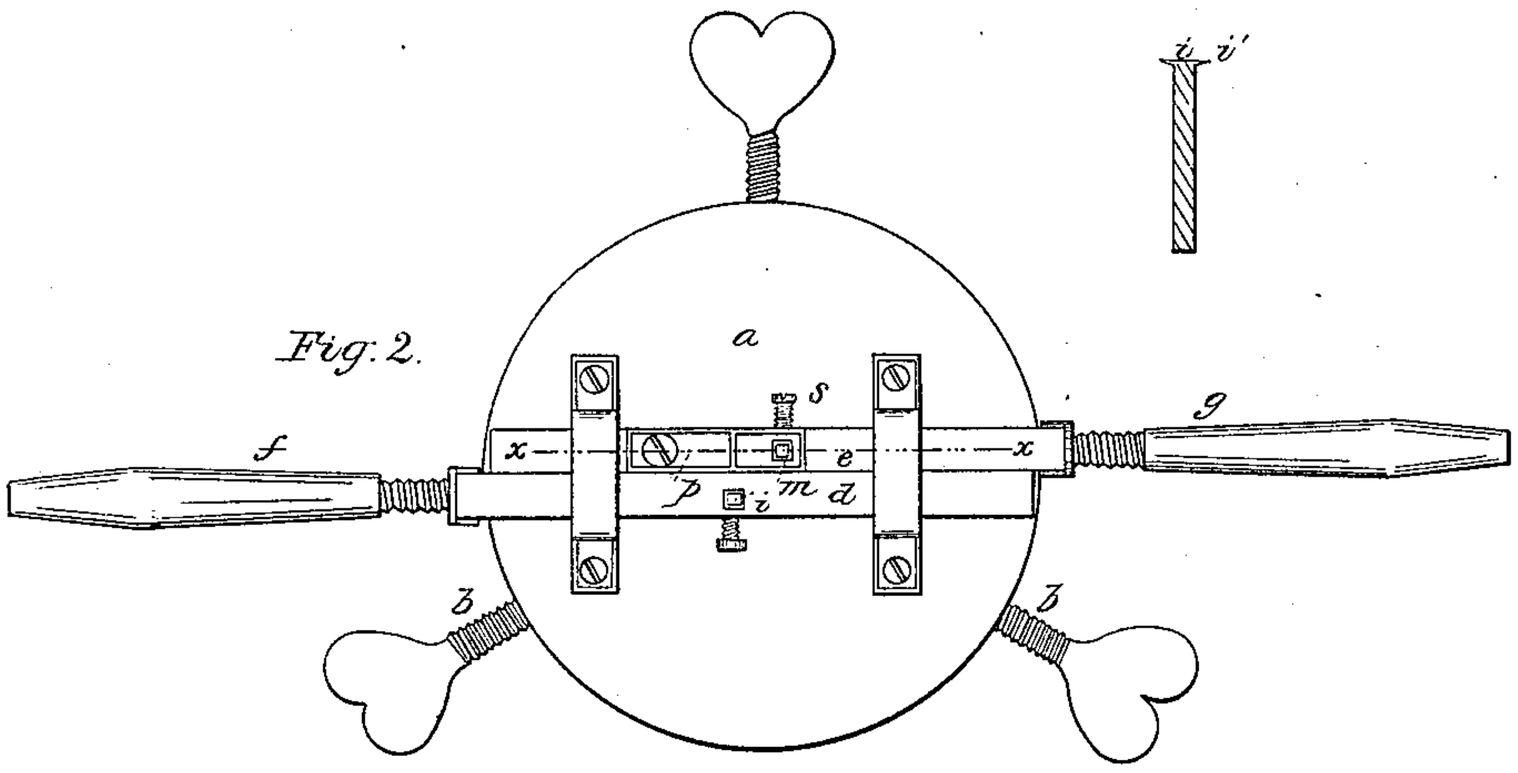
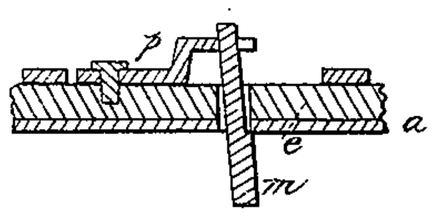


Fig. 3.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

H. L. MOONEY AND W. B. CARTER, OF ASTORIA, ILLINOIS.

TOOL FOR BORING HUBS.

Specification of Letters Patent No. 14,968, dated May 27, 1856.

To all whom it may concern:

Be it known that we, H. L. MOONEY and W. B. CARTER, of Astoria, in the county of Fulton and State of Illinois, have invented a new and useful Improvement in Tools for Cutting Hubs for the Reception of Boxes; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is a plan view showing interior of the tool. Fig. 2 is a top view. Fig. 3 is a section on line *x x* of Fig. 2, taken perpendicular to plate *a*.

Similar characters of reference in the several figures denote the same part.

The object of our invention as an improvement in tools of this character, is to prevent the rising of the side of the tool opposite to the cutter by the action of the cutter on the wood operated upon. A result which invariably obtains in all tools of this kind, by the running of the cutter into the side of the excavation a greater distance than is desired, by which the edge of the cutter is frequently broken, and other disadvantages occasioned.

The invention consists in constructing the tool with an adjustable cutter, and a shouldering instrument on opposite moving slides, governed as will be described, to have a simultaneous outward movement by which the shouldering instrument is made to perform the double function of holding the tool in place and cutting the shoulder.

The details of construction and operation are as follows:

In the drawing R is a rim either left open, or covered by a plate *a*. Through this rim passes the screws *b* of guides *c*, of which any desired number may be used. Upon the top of the tool are two bars *d* and *e*, capable of movement in opposite directions by screw handles *f* and *g*, which turn loosely in rim R and work in threads in lugs *l* of bars *d* and *e*.

In bar *d* is secured the shoulder cutter, consisting of a shank *i* and sharp cutting edge *i′* as shown at *x*. The excavating cutter *m* is secured at any angle by means of screw S and movable plate *p* (Fig. 3), to adapt the tool to the fitting of any box; be it taper or straight. The shouldering instrument *i i′* is so adjusted that its cutting edge *i′* will be slightly lower than the extremity of the cutter *m*.

The operation of this tool is as follows:—The guides *c* are adjusted to embrace the end of the hub loosely, and the cutters brought sufficiently close together to enter the bore of the hub, the cutter *m* having been previously adjusted to the character of excavation to be made. By turning handle *f*, cutting edge *i′* is made to enter the side of the bore, and by turning handle *g*, the edge of cutter *m*, is brought into position for operating. The tool is then turned upon the end of the hub in the usual manner, and at each revolution, the excavating cutter *m* and shouldering instrument *i i′* are moved simultaneously outward by turning handles *f* and *g*. This outward movement of cutter *i i′* causes its cutting edge *i′* to remain constantly engaged with the side of the excavation, and thus prevents the rising of the tool by the action of the edge of cutter *m*. This feature is of considerable importance in the operation of the tool; as this rising, which obtains as the result of other constructions, frequently causes the breaking of the edge of the cutter in forcing the tool down upon the hub. This is particularly the case where knots are encountered by the cutter, as then the cutter is most likely to be drawn into the wood deeper than is desired.

We make no claim to the receding of the cutter from the center of the hub during the progress of the evcavation, as such constitutes no part of our invention. But

We claim as new and of our own invention:—

The construction of the tool with the excavating and shouldering cutters in separate slide bars, capable of a simultaneous outward movement, and relatively so situated that the shouldering cutter is made to perform the double function of cutting the shoulder, and holding the tool firmly upon the hub, as herein set forth.

In testimony whereof, we have hereunto signed our names before two subscribing witnesses.

H. L. MOONEY.
W. B. CARTER.

Witnesses:
GEO. PATTEN,
JOHN S. HOLLINGSHEAD.