P. Baylor,

Boring Wood.

No. 3,645. Patented July 1, 1844.

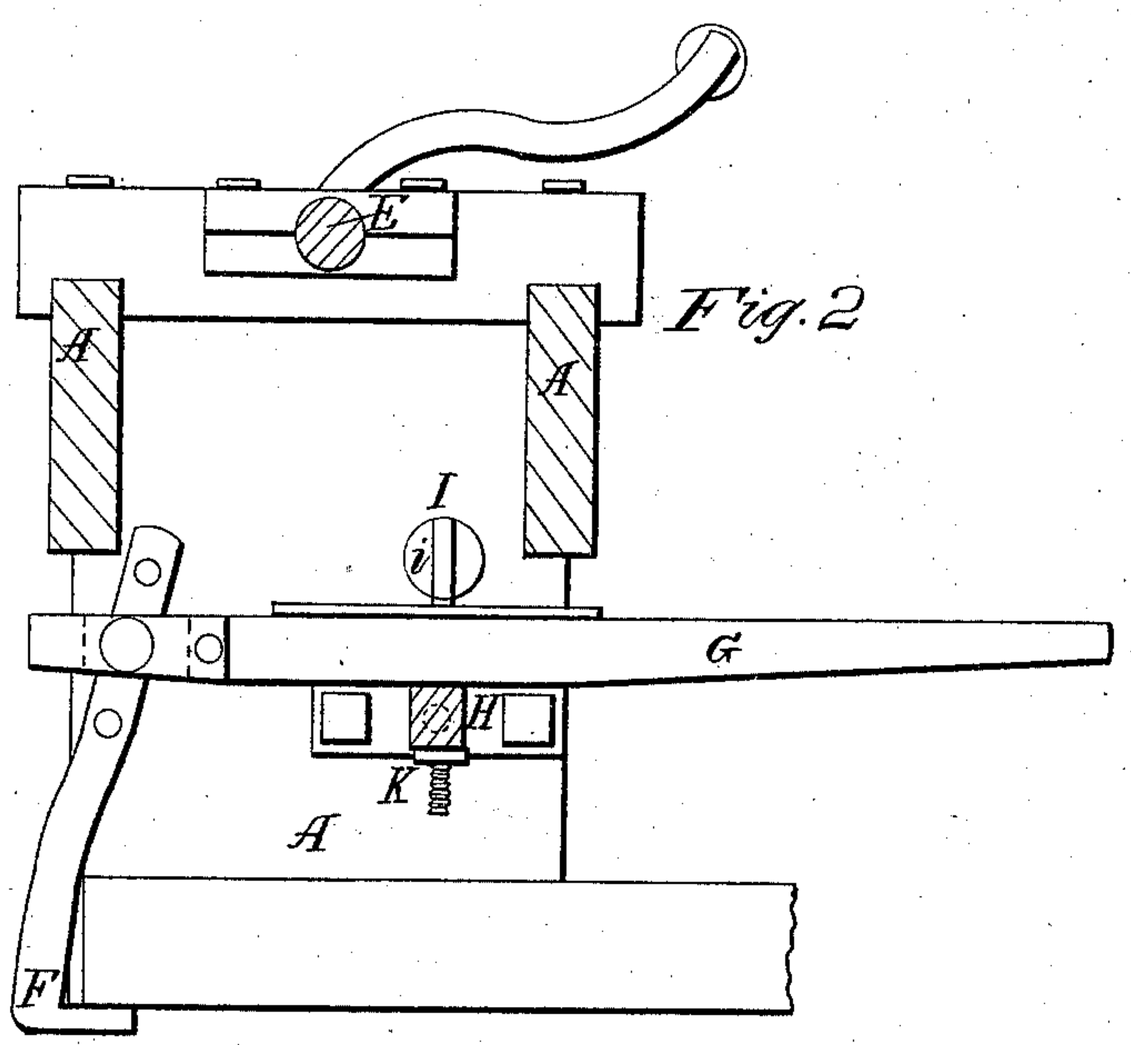
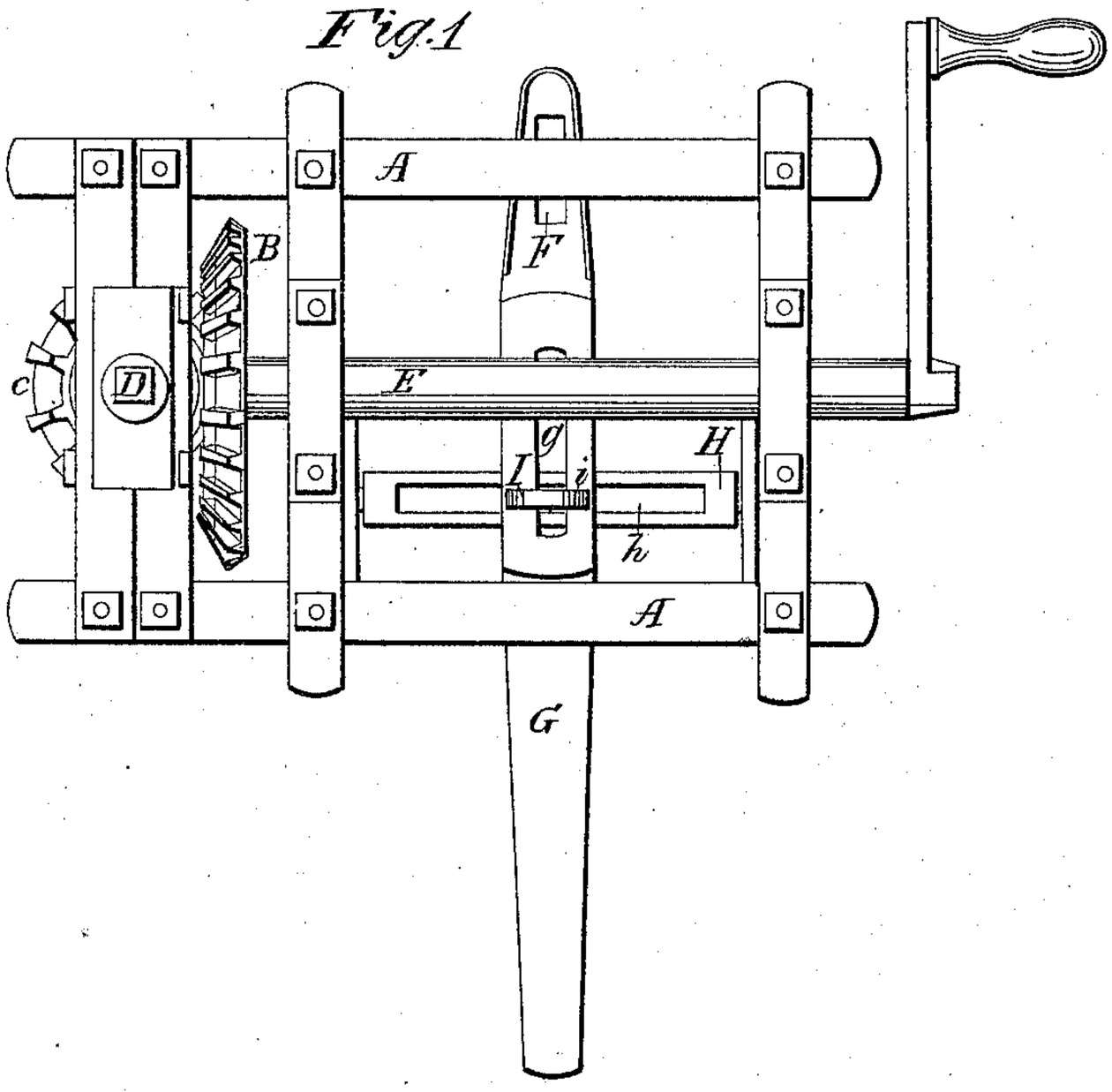


Fig. 2

Fig. 1



UNITED STATES PATENT OFFICE.

PETER BAYLOR, OF NEAR SALEM, OHIO.

METHOD OF SECURING BORING-MACHINES TO THE ARTICLE TO BE BORED.

Specification of Letters Patent No. 3,645, dated July 1, 1844.

To all whom it may concern:

Be it known that I, PETER BAYLOR, of near Salem, Columbiana county, State of Ohio, have invented a new and useful Improvement in Machines for Boring, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a top view of the machine. Fig. 2 is a vertical cross section.

The frame A for containing and supporting the several operative parts of the machine is made of timber of suitable size and requisite strength. In this frame are arranged in a convenient and durable manner the bevel cog wheels B, C meshing or working into each other for turning the boring tool D the shank of which is inserted into a square oblong, or polygonal aperture of corresponding shape made in the center of the vertical shaft of the horizontal bevel wheel, for turning the boring tool which turns with the bevel wheel. The vertical bevel wheel meshing into the horizontal bevel wheel is turned by a horizontal crank shaft E which turns in suitable boxes in the frame.

In boring, the tool descends gradually through the aforesaid aperture in the shaft of the horizontal bevel wheel C and into the article to be bored while the tool turns horizontally by means of the screw on the point of the auger or tool laying hold of the article being bored, or by adding weight to the tool, the aperture in the axle of the bevel wheel in which the shank of the boring tool is placed being made sufficiently large to allow it to play freely therein in a vertical direction while it is prevented from turning horizontally, and this constitutes one of my principal improvements.

The machine is portable and must be brought to the article to be bored, or the article may be brought to it, and to which it is secured by a hook F and lever G in the following manner, see Fig. 2.

In the middle of the frame and below the gearing is arranged a vibrating or turning axle H. Across this axle is placed a lever G, the axle H forming a vibrating fulcrum. To one end of said lever is suspended a swivel hook F for hooking under, into, or against, the article to be bored, or a shield placed against it. The lever G and axle H are both perforated with oblong slots (*g h*) or mortises *g h* through which is inserted a bolt I having a large head that rests upon the top of the lever G and a screw, and nut (K) that is screwed against the under side of the vibrating axle H.

The machine is brought to the article to be bored and made fast to it by bringing the hook F under, or against the said article. The operator then places his foot upon the lever G and throws a portion of his weight upon it which thus clamps the machine firmly to the article to be bored. He then with the hand turns the crank shaft E which turns it and the gearing and the auger which is guided by hand to the place where the hole is to be bored. The tool will enter the wood and be drawn therein by the screw thereon to the depth required. By reversing the motion of the crank shaft the auger will be withdrawn from the wood,

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

The combination of the oblong perforated vibrating axle H, the oblong perforated lever G connected thereto by a screw bolt I, the hook F for grasping or gripping the article to be bored, with the machine for boring, in the manner and for the purpose set forth.

PETER BAYLOR.

Witnesses:
WM. P. ELLIOT,
A. E. JOHNSON.