J. H. Aldrich,

Boring Wood,

No. 6,909, Patented Nov. 27, 1849.

Fig. 3.

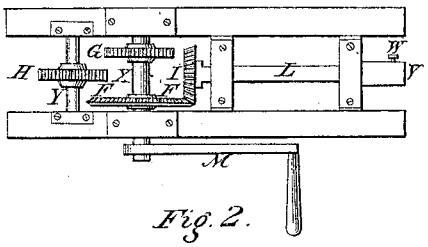


Fig. 2.

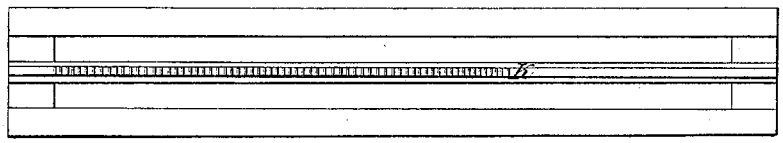
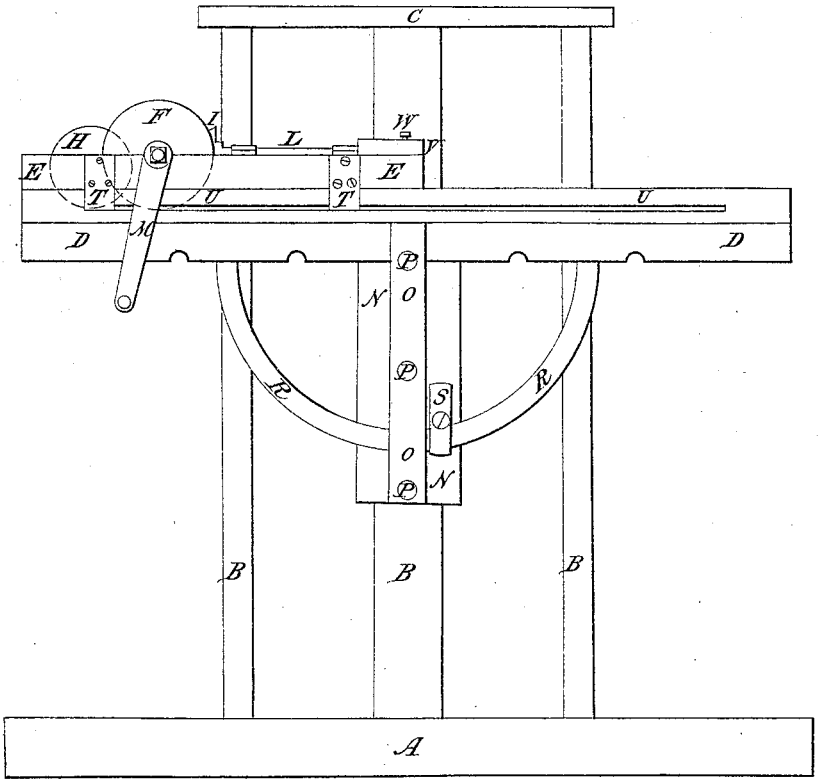


Fig. 1.



UNITED STATES PATENT OFFICE.

JAMES H. ALDRICH, OF PORTSMOUTH, NEW HAMPSHIRE.

IMPROVEMENT IN BORING-MACHINES.

Specification forming part of Letters Patent No. **6,909**, dated November 27, 1849.

To all whom it may concern:

Be it known that I, the undersigned, JAMES H. ALDRICH, of Portsmouth, in the county of Rockingham and State of New Hampshire, have invented a new and useful Machine, called the "Rotary Boring Machine," for Boring Ships and other Purposes, of which the following is intended as a full and clear description.

The machine consists of a base, (marked A, Figure 1, on the plan which accompanies the specification,) which may be made of plank or other suitable material, and will be of convenient size if made three feet long by one foot wide, or wider. Upon this base are erected three uprights (marked B in Fig. 1) about three feet long, the center one to be two inches thick and three inches wide, the outer ones one inch thick by two wide, which are connected at the top by a cap-piece C, one inch by two. The uprights should be placed at suitable distances apart to support the machine. Against these uprights is placed a movable bed piece or frame D D in Fig. 1, six inches wide and three feet long, on which the carriage, Fig. 3, (lettered E E in Fig. 1,) is moved, and is connected with the bed-piece D D by sliding clamps T T, which move in grooves U U, made in said bed-piece, Fig. 1. In this carriage is fixed an arbor L L, in which a bit or auger may be inserted at V and fastened with screw marked W. At the other end of this arbor is fixed a beveled gear-wheel (lettered I) about three inches in diameter, gearing with the beveled driving-wheel F, which is about six inches in diameter and driven by crank M. Near the driving-wheel F is a spur gear-wheel, (marked H,) which revolves on axle Y, Fig. 3, in the carriage E E, and which gears in the rack K K, Fig. 2. Attached horizontally to bed-piece D D, Fig. 1, on the driving-shaft (marked X) is a sliding gear-wheel, (lettered G,) which slides on shaft X, and when in gear with wheel H withdraws the auger by the direct motion of the crank M. The bed-piece D D is connected with the plate of iron N N, which is fastened to the center post by bands which slide on said upright in such a manner as to be easily raised or lowered and fastened by pin, screw, or other suitable fastening. On the outside of bed-piece D D is another plate of iron O O, which is secured to plate N N by horizontal posts P P P in such a manner that the bed-piece D D may revolve freely on the uppermost post P. A half-circle piece, (lettered R R in the plan,) made of metal, can be marked with degrees, and is attached to the bed-piece D D at each extremity, by means of which and button S the bed-piece can be made stationary at any angle. The size and proportions here given are convenient for common use; but any other may be adopted.

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

The combination of three principles—namely, first, the manner in which the bed-piece (to which the carriage is connected) is raised or lowered, as above described; second, the manner in which the bed-piece may revolve to set the auger at any angle or degree; third, the manner in which the auger is withdrawn by the direct motion of the crank.

JAMES H. ALDRICH.

Witnesses:

SAMUEL BAKER,

ALFRED M. HOYT.