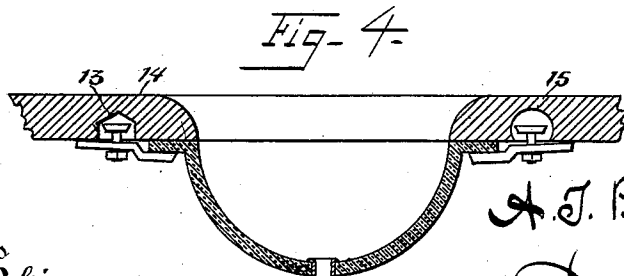
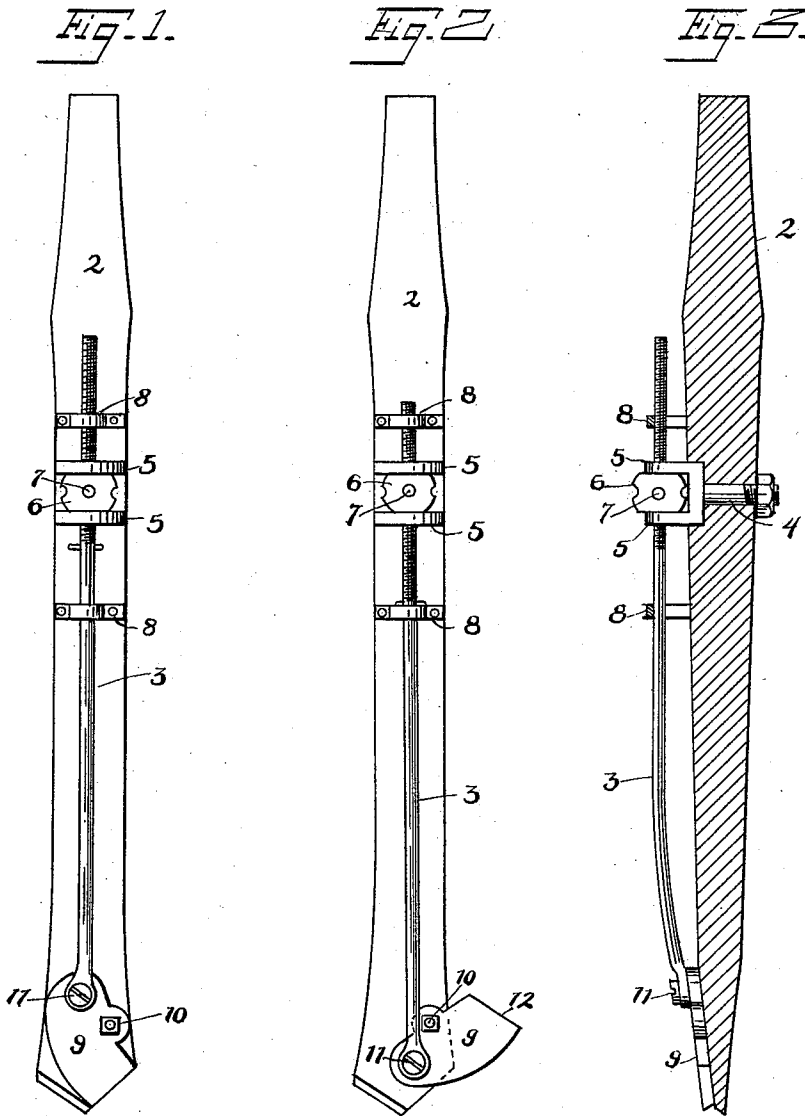


(No Model.)

A. T. PEARSON.
ADJUSTABLE BIT.

No. 541,674.

Patented June 25, 1895.



Witnesses
Harry J. Perkins.
C. Gerst.

By his Attorney

A. T. Pearson
Inventor

J. Edgar Date

UNITED STATES PATENT OFFICE.

AXEL THEODORE PEARSON, OF NEW YORK, N. Y.

ADJUSTABLE BIT.

SPECIFICATION forming part of Letters Patent No. 541,674, dated June 25, 1895.

Application filed April 3, 1895. Serial No. 544,280. (No model.)

To all whom it may concern:

Be it known that I, AXEL THEODORE PEARSON, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Adjustable Bits, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar numerals of reference indicate corresponding parts.

This invention relates to bits for boring holes in marble plates and similar articles, designed to be used in connection with a brace or stock in the usual manner, and the object thereof is to provide a bit provided with means for reaming out or forming chambers in marble plates or similar material for the purpose of attaching wash basins or various other articles thereto and for similar purposes.

The invention is fully described in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 represents a plan view of my improved bit with the reaming device connected therewith; Fig. 2, a similar view with the reamer in position for operation; Fig. 3, a longitudinal sectional view of the bit, showing a side view of the reaming device; and Fig. 4 a section of a marble plate for a stationary washbasin, which shows the operation of my improved reaming device.

In the practice of my invention I connect with an ordinary bit 2 a reaming device consisting of a rod 3 having a reamer secured thereto at the end of the bit, and said rod being connected with the bit by means of a bolt 4 which passes therethrough and is provided on one side with jaws or clamps 5 through which the rod 3 passes and on which is mounted between said jaws a nut 6 having radial perforations 7 formed therein, as clearly shown in the drawings, said nut and rod being provided with screw-threads to permit of the adjustment of the rod, and said rod also being passed through guides 8 secured to the bit on each side of said support.

The reamer 9 is pivotally connected with the bit at 10 near the cutting end thereof and also pivotally connected at one end thereof with the rod 3 at 11, as clearly shown in Figs. 1 and 2, the cutting edge 12 of the reamer be-

ing opposite its connection with the rod and the pivotal connections thereof being so adjusted that when the rod 3 is drawn back by means of the adjusting nut 6 the edge of the reamer will occupy the position shown in Fig. 1, and when it is desired to ream out the cavity formed by the bit and form a chamber in the material being operated upon the rod 3 is gradually worked forward by the adjusting nut 6 until the reamer will assume the position shown in Fig. 2. It will be observed that the outer edge of the reamer is cut away or grooved as shown in Figs. 1 and 2, and that the cutting edge thereof is so arranged as to correspond with the inclination of the cutting edge of the bit when the reamer is not in operation.

The operation is as follows: The reaming device being in the position shown in Fig. 1, the bit is attached to the brace or stock and a cavity similar to that shown at 13 in the plate 14, having straight side walls, is formed. The said rod is then gradually forced forward by means of the adjusting nut 6 and the reamer gradually worked around to the position shown in Fig. 2, during which time the chamber or cavity 13 is reamed out into the form shown at 15, in said Fig. 4, as will be readily understood, and the side walls thereof will be inwardly and outwardly directed in the required form, and when both of the cavities 13 and 14 in Fig. 4 have been thus formed the wash basin 16 may be secured thereto in the usual manner.

It will of course be understood that my improved reamer may be used on any variety of hard material, such as marble, onyx, granite or similar substances used for forming plates for stationary wash basins or similar purposes, and I do not limit myself to any use or application thereof. Neither do I limit myself to the exact form of construction shown and described, as it is evident that changes therein and modifications thereof may be made without departing from the scope of my invention, but,

Having fully described said invention, its construction and operation, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a bit adapted to be connected with a brace or stock, of a reaming device consisting of a rod and a reamer

or cutter, said rod being connected with said bit by means of a bolt extending therethrough and provided with clamps or jaws through which the rod passes, said rod being also screw-threaded and having mounted thereon between said jaws a screw-threaded nut, and said rod being also passed through guides or supports connected with the bit at each side of said clamps or jaws, and a reamer or cutter pivotally connected with the bit near the cutting end thereof and also pivotally connected with said rod, the construction and arrangement being such that the rod may be drawn back and allow the bit to work independently of the reamer or forced forward and the reamer be operated, substantially as shown and described.

2. The combination, with a bit, of a support provided with clamps or jaws connected therewith, a screw-threaded rod passing through said clamps or jaws and having mounted thereon an adjusting nut, guides or supports at each side of said jaws connected with said bit through which the rod is also passed, a reaming device pivotally connected with the bit near the cutting end thereof and being pivotally connected at one end with said rod and having a cutting edge at the outer end

and being curved on its outer edge or side, the construction and arrangement being such that the reamer may be drawn back by the rod and allow the bit to work independently thereof, or gradually forced forward and operated, substantially as shown and described.

3. The combination with a bit, of a reamer pivotally secured on the lower end thereof and opposite the cutting edge of the bit, the guides on one side of said bit, the clamps located on the same side of the bit and between said guides, a threaded rod operating through said guides and clamps and pivotally connected to the reamers at one side thereof and an adjusting nut arranged on the rod between the clamps by means of which the rod is adjusted on the bit and the reamer brought into or out of operative position, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of March, 1895.

AXEL THEODORE PEARSON.

Witnesses:

PERCY T. GRIFFITH,
A. M. CUSACK.