(No Model.)

W. T. BROWNE.

ROTARY HAMMER.

No. 265,655. Patented Oct. 10, 1882.

Fig. 1

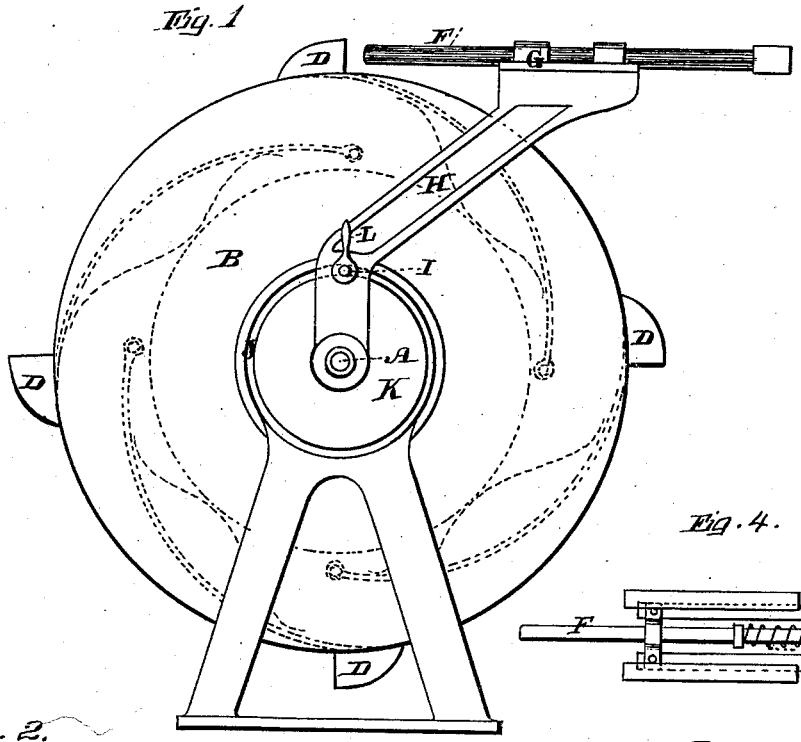


Fig. 4.

Fig. 2.

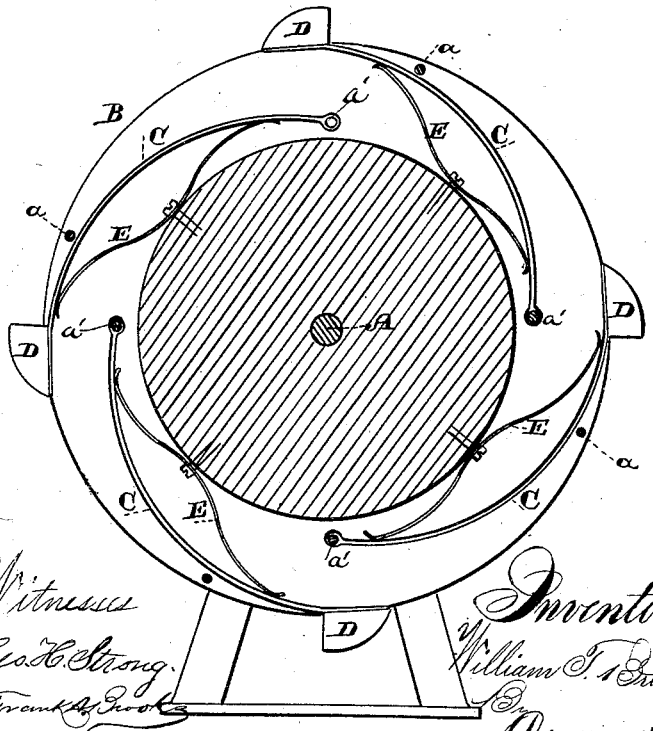
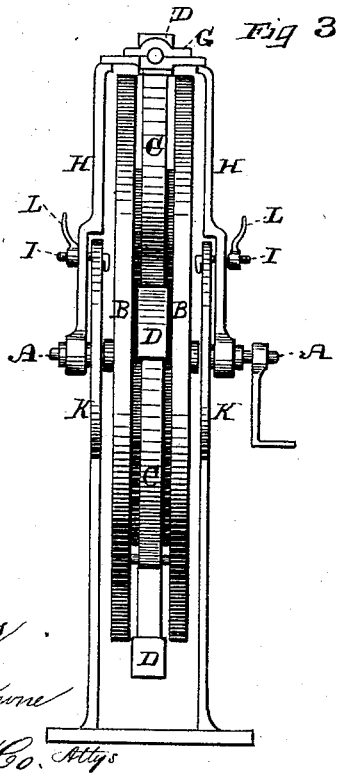


Fig 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM T. BROWNE, OF STOCKTON, CALIFORNIA.

ROTARY HAMMER.

SPECIFICATION forming part of Letters Patent No. 265,655, dated October 10, 1882.

Application filed January 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BROWNE, of Stockton, county of San Joaquin, State of California, have invented an Improved Rotary Hammer; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an apparatus for striking repeated and rapid blows, which I call a "rotary hammer;" and it consists of a series of arms carrying hammers at one end, while the opposite ends are hinged or pivoted to a revolving disk, by the rotation of which the hammers are carried around in a circle. These hammers strike successively upon the head of an adjustable arm or bar, through which the force of their blows is transmitted to the desired point.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side view. Fig. 2 is a vertical section. Fig. 3 is an edge view. Fig. 4 is a detail.

A is a rotating shaft, carrying the disk or disks B, curved arms C, having one end pivoted to the disks. The opposite ends of the arms have hammers D secured to them, so as to be carried around with the disks as they rotate, and the arms are kept out to their position by springs E. The hammers are caused to fall upon the end or head of a bar or shaft, F, which moves in a guide, G, the supporting-arms H of which extend outward from the center or shaft of the wheel, as shown. A bolt, I, passes through a circular slot, J, in the standard K, and a nut, L, upon the outer end, may be turned until it fixes the arm H at any desired point, and this fixes the position of the guide G and the direction in which the bar F delivers its blow. A spring, *d*, serves either to retract the bar after each stroke or to hold it down upon the work, as may be desired. The receiving end of the bar stands in such a position that each hammer as it is rotated falls upon it and is immediately drawn off to the inside, so as to pass the bar and continue its rotation. This result is effected by the compression of the springs E, and more especially by the peculiar application of the arms C, each of which extends around one-quarter the circumference of the circle from the hammer to the pivotal point. When more than four arms are used they will overlap each other in order to have the proper length between the hammer and the pivotal point. A pin, *a*, prevents the hammer from flying off by centrifugal force. By this it will be seen that when the hammer strikes its blow the fixed end of its arm C will be one-fourth of the circle in advance of it, and consequently a continuation of its movement will be at right angles with the direction in which the blow was struck. The effect of this will be to draw the hammer off the bar inwardly, and thus allow it to continue its rotation. The arms are made rigid enough not to spring by the movements of the hammers or the action of the springs E.

As the arms H, by which the guide G is supported, are adapted to revolve about the central shaft and be fixed in any desired position, it will be manifest that the angle at which the bar F stands may be changed and the bar fixed so that the hammer will deliver its blow in any direction around the circle.

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

1. In a rotary hammer adapted to strike blows tangent to the circle of rotation, the revolving disk B, in combination with a series of hammers, D, provided with handles C, extending through one-quarter of the circumference of the disk and pivoted at *a'*, and supporting springs E E, all constructed, arranged, and operated as set forth.

2. In a rotary hammer, the revolving disk B, carrying a series of pivoted hammers, D, in combination with a tangential plunger, F, for the purpose specified.

3. The revolving disk-carrying hammers D, in combination with the tangential plunger F and the radially-adjustable arm H for supporting said plunger, substantially as described.

In witness whereof I have hereunto set my hand.

WM. TRAVIS BROWNE.

Witnesses:
T. R. MOSELEY,
A. G. LAWRENCE.