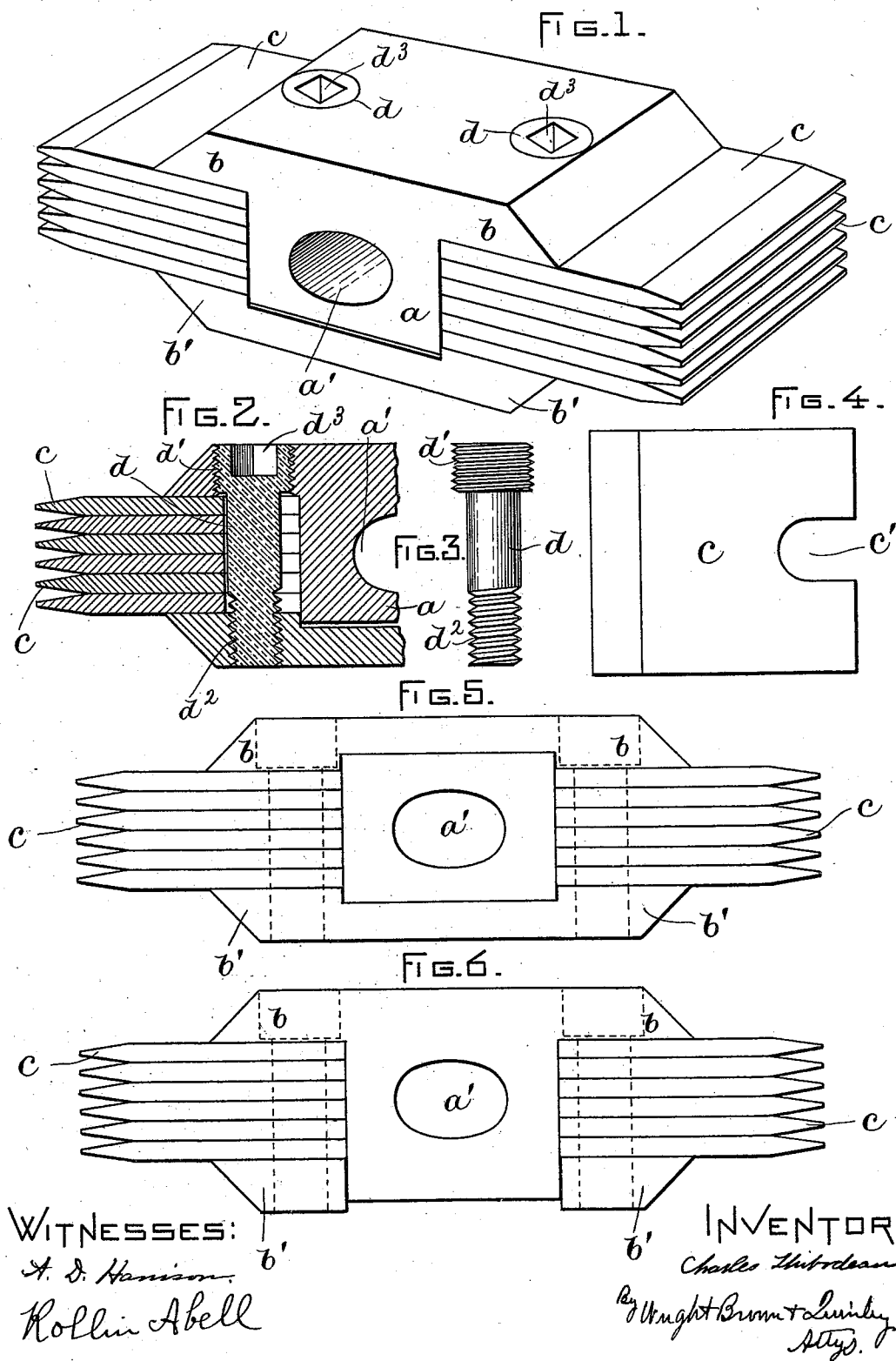


(No Model.)

C. THIBODEAU.
BUSH HAMMER.

No. 555,714.

Patented Mar. 3, 1896.



UNITED STATES PATENT OFFICE.

CHARLES THIBODEAU, OF SOMERVILLE, MASSACHUSETTS.

BUSH-HAMMER.

SPECIFICATION forming part of Letters Patent No. 555,714, dated March 3, 1896.

Application filed May 6, 1895. Serial No. 548,829. (No model.)

To all whom it may concern:

Be it known that I, CHARLES THIBODEAU, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bush-Hammers, of which the following is a specification.

This invention relates to hammers for dressing stone, and has for its object to provide a hammer of compact form, free from projecting bolt-heads and nuts and adapted to withstand the rough usage to which such hammers are ordinarily subjected without loosening the cutting bits or knives.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of a bush-hammer provided with my improvements. Fig. 2 represents a longitudinal section of a portion of the same. Fig. 3 represents a side view of one of the jaw-operating bolts. Fig. 4 represents a side view of one of the bits or knives. Figs. 5 and 6 represent side views showing modifications.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a block having an eye *a'* to receive the hammer-handle. *b b* represent jaws projecting from the ends of the eye-block *a* and preferably formed integral therewith, as shown in Figs. 1, 2, and 6.

b' b' represent jaws which are movable independently of the jaws *b b* and are arranged at the opposite side of the space which receives the bits or knives *c*. I prefer to form the jaws *b' b'* in one piece or plate, as shown in Figs. 1, 2, and 5, said plate being preferably recessed upon its inner side to form shoulders bearing against the ends of the eye-block *a*.

d d represent bolts which pass through the jaws *b* and *b'* and through the spaces between the same. Each bolt is provided with two screw-threads *d'* and *d''*. Said threads are of different pitch, the thread *d'* being finer than the thread *d''*. The jaws *b* and *b'* are provided with sockets formed to engage said screw-threads, the jaw *b* having a socket formed to engage the thread *d'*, while the jaw *b'* has a socket formed to engage the thread *d''*.

The bits or knives *c* are provided at their

inner ends with open slots or recesses *c'*, Fig. 4, formed to receive the bolts *d*, the form of said slots being such that the bits or knives can be withdrawn endwise from the space between the jaws without requiring the removal of the bolt *d*.

When the bolts *d* are turned to enter their threads into the corresponding sockets, the coarser thread *d''* draws the jaw *b'* inwardly, the finer thread *d'* at the same time supporting the jaw *b* against the movement of the jaw *b'*, so that the interposed knives or bits are firmly clamped between the two jaws without the employment of external heads or nuts upon the operating-bolts *d*.

I find that the jaw-operating bolts formed, as described, with screw-threads of different pitch enable the knives to be securely clamped between the jaws without liability of becoming accidentally loosened, even under hard or long-continued usage. The absence of external bolt-heads and nuts, besides making the hammer compact, decreases the liability of loosening the bits or knives, there being no exposed parts to be accidentally turned by contact with external objects.

I prefer to provide the bolts *d* with sockets *d''* to receive a square-ended screw-driver or tool, by which the bolts may be rotated.

In Fig. 5 I show a modification in which the eye-block is made in a separate piece from the jaws, the jaws *b b* being formed in one piece, like the jaws *b' b'*.

In Fig. 6 I show another modification, in which the jaws *b' b'* are formed independently of each other, instead of being connected in one piece.

I claim—

1. A bush-hammer comprising the clamping-jaws, having screw-threaded sockets of uniform diameter from end to end, the thread of one socket being of different pitch from the thread of the other socket, the eye-block, the bits or knives and the jaw-connecting bolts each having two threads of different pitch, engaged with said sockets, said bolts being of a length not exceeding the thickness of the jaws and the bits or knives.

2. A bush-hammer comprising the eye-block, the jaws formed on the ends of said block, the jaws formed independently of the block, said jaws having screw-threaded sock-

ets of uniform diameter from end to end, the
thread of one socket being of different pitch
from the thread of the other socket, the bits
or knives and the jaw-connecting bolts each
5 having two threads of different pitch, en-
gaged with said sockets, said bolts being of
a length not exceeding the thickness of the
jaws and the bits or knives.

In testimony whereof I have signed my
name to this specification, in the presence of 10
two subscribing witnesses, this 1st day of May,
A. D. 1895.

CHARLES THIBODEAU.

Witnesses:

A. D. HARRISON,
ROLLIN ABELL.