W. D. GREANELLE.

Molds for Forming Articles of Rubber and other Materials.

No. 149,470. Patented April 7, 1874.

Fig. 1.

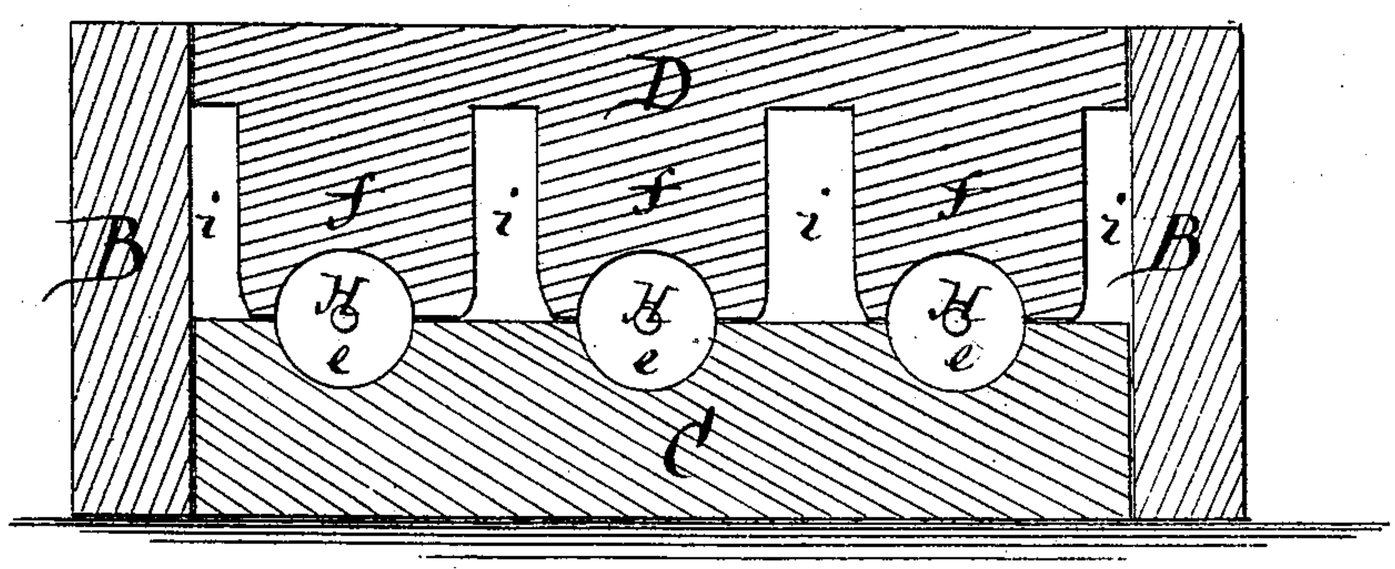


Fig. 2.

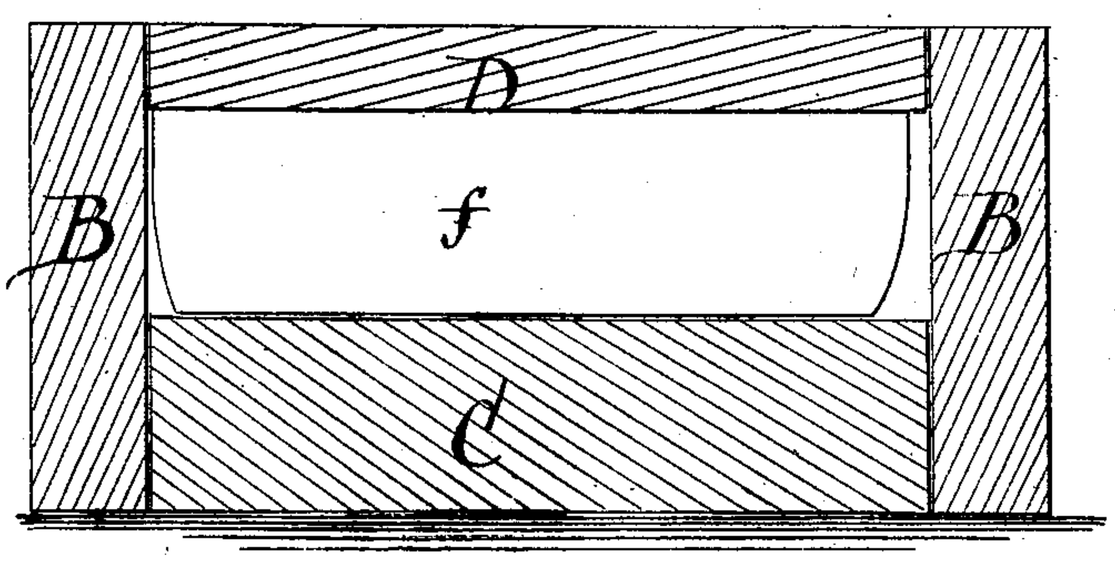
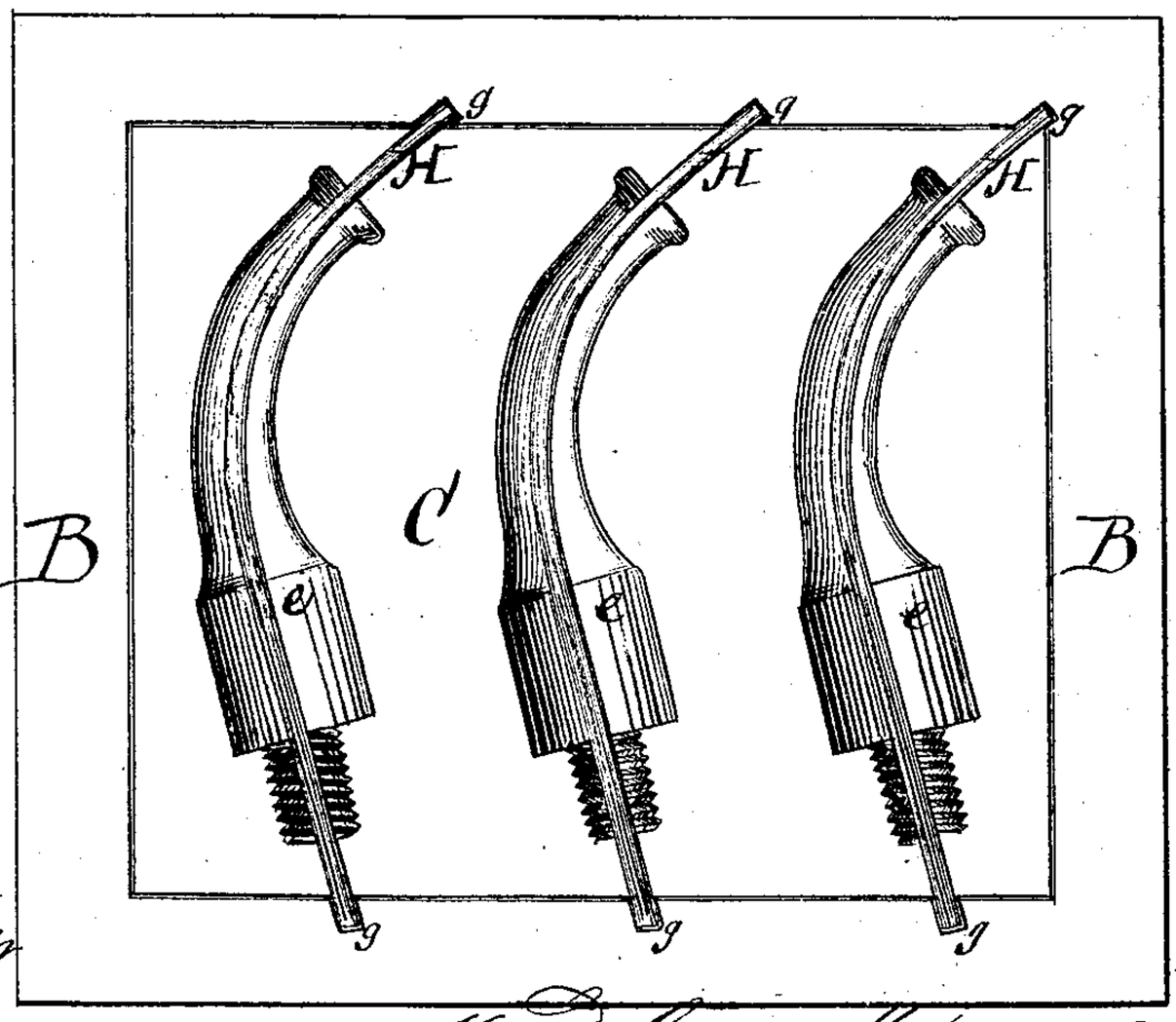


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

WALLING D. GREANELLE, OF NEW YORK, N. Y.

IMPROVEMENT IN MOLDS FOR FORMING ARTICLES OF RUBBER AND OTHER MATERIALS.

Specification forming part of Letters Patent No. **149,470**, dated April 7, 1874; application filed March 10, 1874.

To all whom it may concern:

Be it known that I, WALLING D. GREANELLE, of New York, in the county and State of New York, have invented an Improved Mold for Pipe-Bits and similar bent tubular articles of composition, of which the following is a specification:

My invention consists in the combination of a box or band, a die, and a follower with a bent rod or wire, serving as a core for the articles to be molded from hard rubber or other composition.

In the accompanying drawing, Figure 1 is a transverse vertical section. Fig. 2 is a longitudinal vertical section. Fig. 3 is a top view.

The box or band B is made of any suitable form, preferably square or rectangular. The die C and follower D are made to fit snugly in the band. The lower die C is formed with any desired number of depressions *e*, corresponding in form with one half of a pipe-bit. The follower D is formed with top dies *f* on its under side, corresponding in number and position with the depressions *e*, and having in their faces depressions corresponding with the other half of a pipe-bit. On two opposite sides of the band B, at points opposite the termini of the depressions in the dies, are grooves *g*, for the reception of the ends of bent rods or wires H, curved in a direction parallel with the outlines of the depressions in the dies, which rods H form the cores for the articles to be molded. The bed or bottom die C is laid in a horizontal position, and the band B arranged so as to surround it. The composition is placed in the depressions *e* in about half the quantity necessary to form the pipe-bit. The wires H are then placed in position, with their ends in the grooves *g*, and a further supply of the composition is placed over them, in sufficient quantity to complete the formation of the pipe-bit. The follower D is then placed in the box and pressed down until the edges of the top dies *f* are in contact with the face of the bed-die C. Any surplus composition which may be contained in the depressions is forced out, and enters the spaces *i* on each side of and between the top dies *f*. When the composition has become sufficiently dry and hard, the band B is removed, the follower D is lifted off, the wires H withdrawn, and the pipe-bit relieved of any burr which may exist thereon, after which it is ready for use.

It will readily be seen that this apparatus need not be confined to the manufacture of pipe-bits, but may be applied to the molding of any description of bent tubular articles of composition, whether in plastic, powder, or fluid state.

I do not claim the formation or manufacture of articles from rubber or other compounds by molding, for such is well known and not my invention, which, as heretofore stated, consists solely in a peculiar construction and arrangement of parts to form a mold.

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

In combination with the die C and follower D, having the depressions *e* and spaces *i*, the recesses *g g*, formed on the band B, for receiving and supporting the opposite ends of the rods H, said rods forming the cores of the articles to be molded, substantially as described.

W. D. GREANELLE.

Witnesses:

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