

(No Model.)

D. N. CODDING.

MOLDING PULLEYS.

No. 249,224.

Patented Nov. 8, 1881.

Fig. 1.

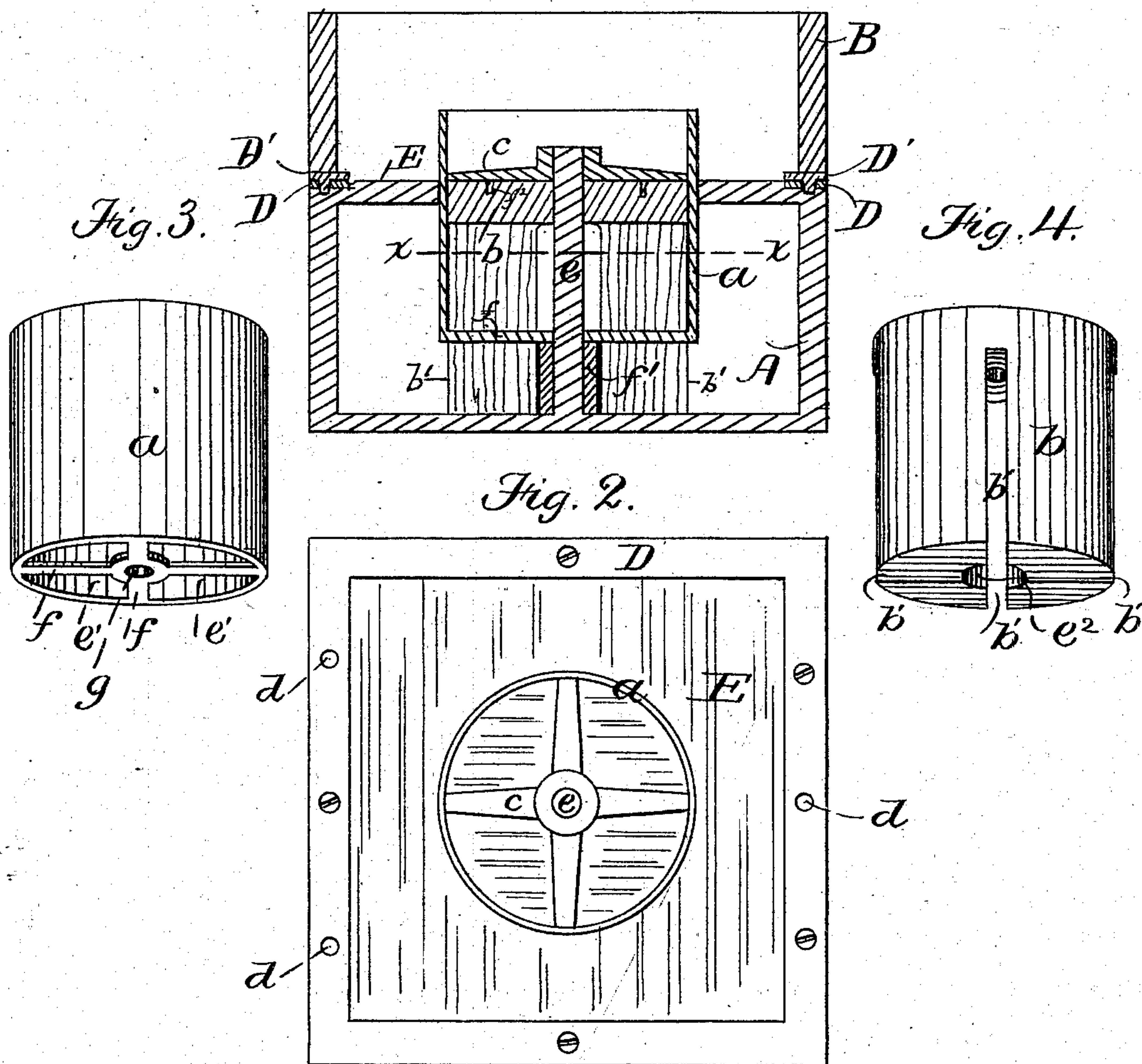


Fig. 5.

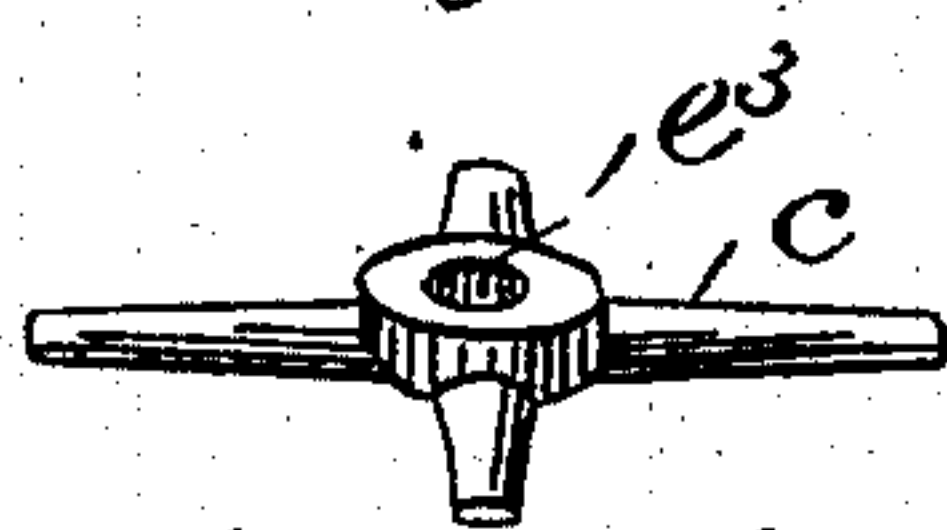
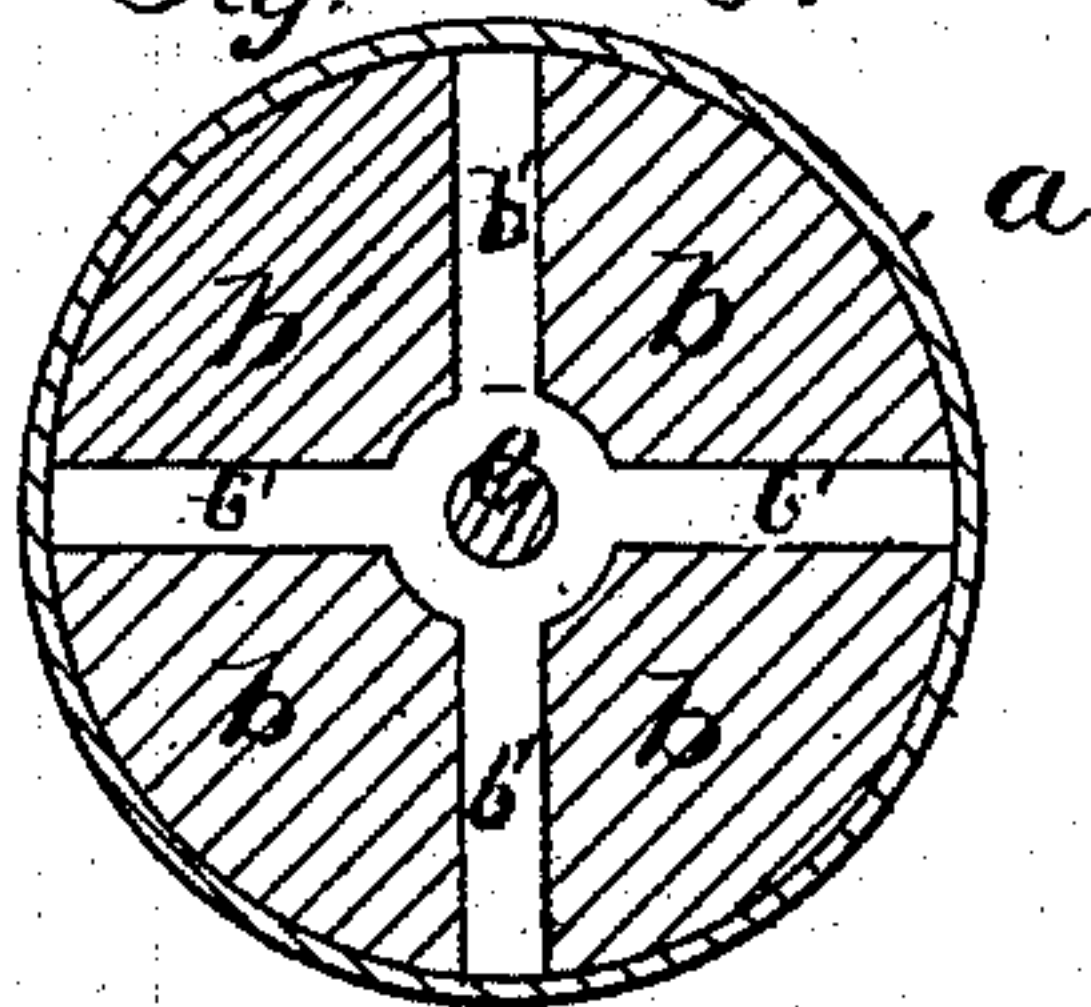


Fig. 6.



Witnesses.

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MOLDING PULLEYS.

SPECIFICATION forming part of Letters Patent No. 249,224, dated November 8, 1881.

Application filed May 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, DAVID N. CODDING, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful
5 Improvement in Molding Pulleys, of which the following is a specification.

My invention relates to a means of molding metal pulleys whereby, with one pattern and one set of arms, I am enabled to mold pulleys
10 of any desirable width of face, different diameters only requiring different patterns and sets of arms.

Referring to the drawings, Figure 1 is a vertical section of a device embodying my invention. Fig. 2 is a plan or top view of the same.
15 Fig. 3 represents the pulley-pattern. Fig. 4 is the center piece of the match. Fig. 5 is the arm-pattern. Fig. 6 is a section on the line x of Fig. 1.

20 A is the match, of which E is the upper part or floor. Around the edge of the upper part of the match is a metal frame, D, made even with the surface E, as shown in Fig. 1. The frame D is provided with three holes, $d d d$ —
25 one on one side and two on the other—as seen in Fig. 2, and a similar metal plate, D', is attached to the upper side of the nowel B, and provided with pins to fit in the holes $d d d$, for
30 the purpose of holding the match and nowel steadily in position. The cope is also to be provided with a similar metal plate on its upper side to fit the nowel and the match. More than three holes, with corresponding pins, may be used, if necessary.

35 b is the center part of the match, resting upon the bottom of the match. The upper surface of the center part, b , is flush with the surface E of the match, and the lower portion is divided into four sections, as shown in section
40 in Fig. 6, having the passages $b' b'$ between each. These passages extend to near the top of the center piece, b , as seen in Fig. 4. At the center of the top is a hole, through which
45 passes the top of a metal post or standard, e , secured to the base of the match, as seen in Fig. 1.

50 a is the pulley-pattern, consisting of a metal cylinder open at the top, and having on the bottom four arms, $f f$, connecting with a central hub, in which is a hole, through which

passes the post e , while the arms $f f$ pass through the passages $b' b'$ of the center piece, b .

On the top of the center piece, b , is placed the arm-pattern c , having a hub and a hole, e^3 , in its center. The arm-pattern is held in position on the top of b by means of pins f^2 on
55 its under side fitting in holes in the center piece.

The pulley-pattern a rests upon a spool or block, f' , fitting over the post e at the bottom
60 of the match. The block f' may be readily removed and replaced by one of greater or less height, as required. Instead of the block f , the pulley-pattern may be supported upon bars, or in any other way which will admit of its being
65 adjusted to different heights. The pulley-pattern a extends above the surface E of the match A and the top of center piece, b , to a height equal to one-half the width of the face of the pulley to be cast, so that by adjusting
70 the height of the support f' , or its equivalent, the pattern a will project to any required height above the surface E, thus enabling me with one pulley-pattern to mold a pulley with
75 any desired width of face, different patterns being only required in molding pulleys of different diameters.

In operation, when the pulley-pattern is properly adjusted and the arm-pattern put in place, the nowel is fixed upon the match and
80 then filled with sand and properly rammed. The whole is then turned upside down and the match taken off, leaving one-half of the pulley-mold, the patterns being drawn out. The match with the patterns being then reset, the cope is
85 put on and filled with sand and rammed as before. The whole is then turned down and the patterns again drawn out. The two parts are then put together, thus completing the whole mold, all ready to receive the metal for casting.
90

The arms of pattern c , instead of being straight, as shown, may be curved.

The center b of the match, instead of being slotted or recessed, as shown in Fig. 4, may be made solid, and the pulley-pattern a may be a
95 plain cylinder without the arms f and central hub, e' , and in this case the central post, e , is dispensed with, the pulley-pattern a being held in proper position by means of metal guides on the inside of the opening in the
100

match, so as to maintain a perfectly fixed position while molding. The pulley-pattern is then supported upon strips of wood or other material extending across the bottom of the
5 match to adjust the pattern to the required height above the floor E of the match.

What I claim as my invention is—

The combination of the match A, provided with the floor E, and metal frame D, the re-
10 movable center piece, *b*, means for centering the center piece, pulley-pattern *a*, arm-pattern

c, and adjustable block *f'*, or its equivalent, all arranged and constructed substantially as and for the purpose set forth.

In testimony whereof I have signed my name 15
to this specification in the presence of two subscribing witnesses.

DAVID N. CODDING.

Witnesses: .

JOS. H. ADAMS,
B. O'HARA.