

(No Model.)

T. J. BRAY.

DIE FOR FORGING PIPE COUPLING BLANKS.

No. 442,605.

Patented Dec. 16, 1890.

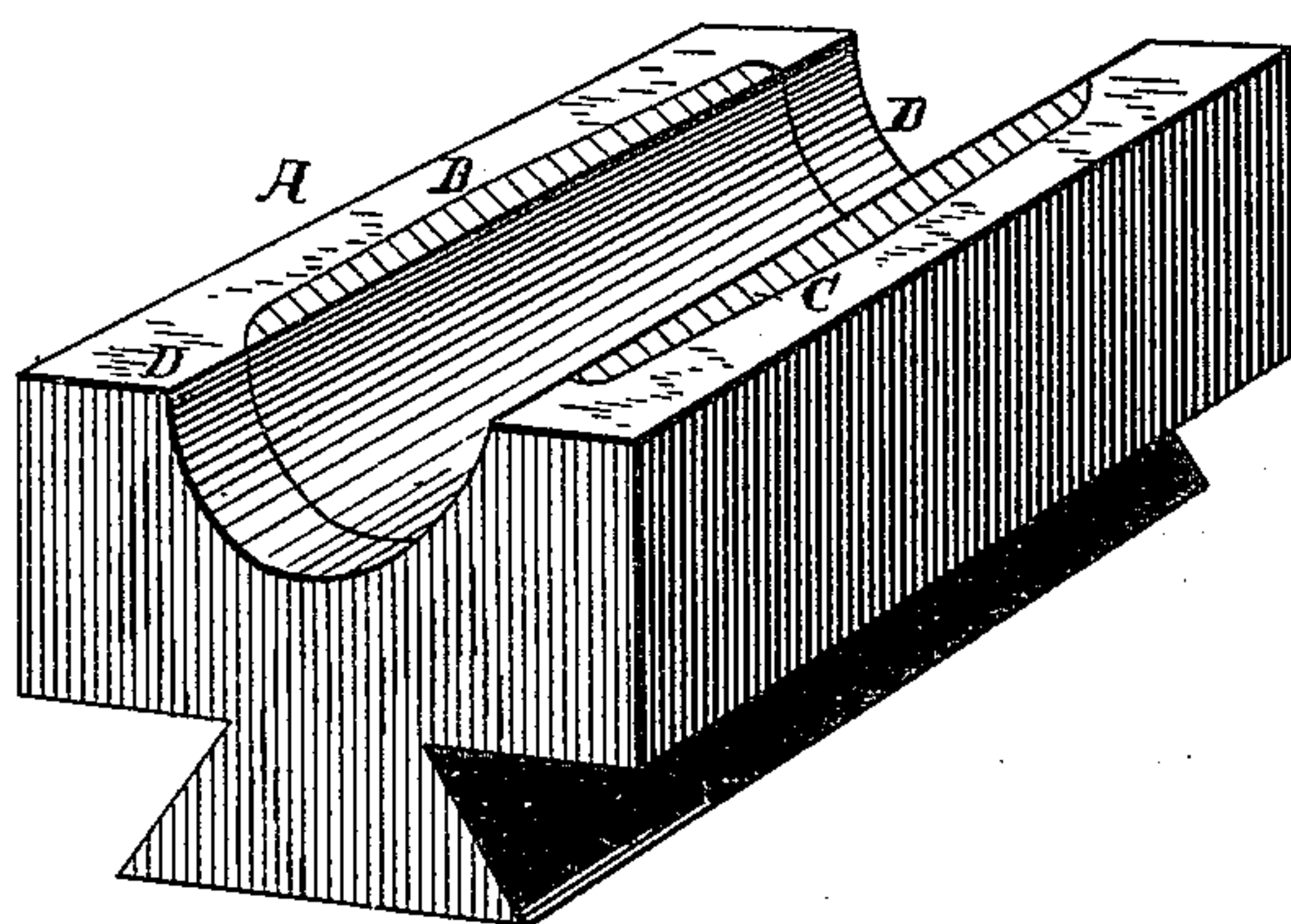


Fig. 1.

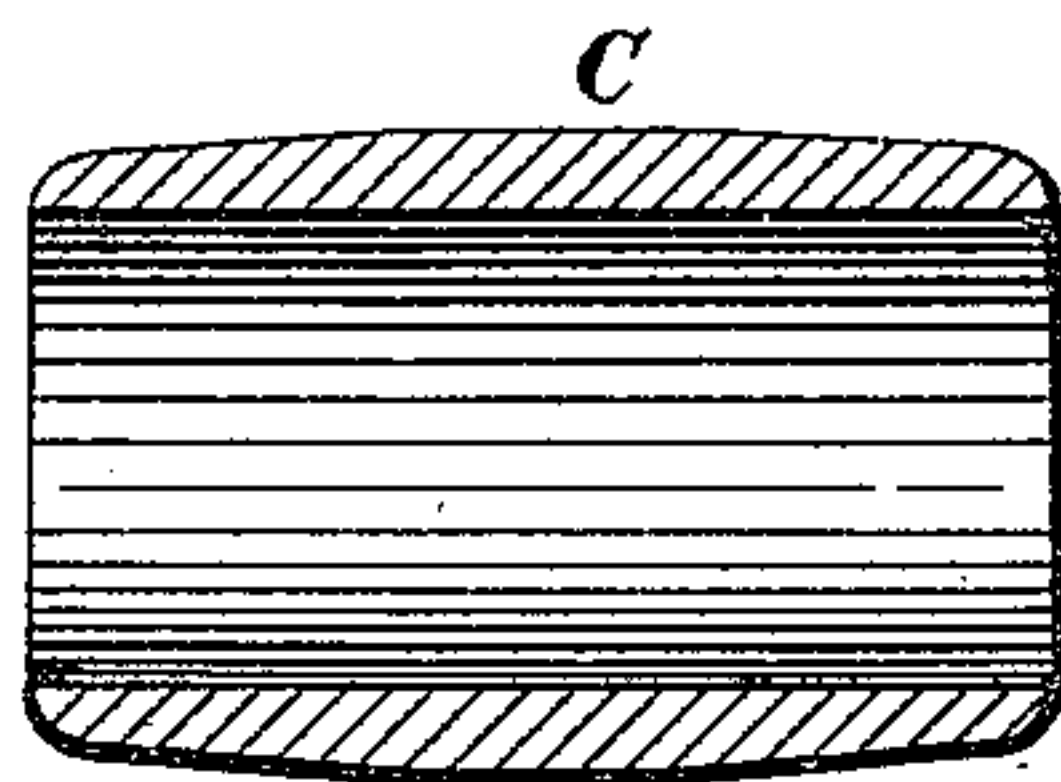


Fig. 2.

Witnesses,

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# UNITED STATES PATENT OFFICE.

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## DIE FOR FORGING PIPE-COUPLING BLANKS.

SPECIFICATION forming part of Letters Patent No. 442,605, dated December 16, 1890.

Application filed September 26, 1890. Serial No. 366,220. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS J. BRAY, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented a certain new and useful Improvement in Dies for Forging Pipe-Coupling Blanks, of which the following is a specification.

My invention has relation to improved devices for producing blanks for pipe-couplings having a true interior of even diameter and an exterior largest at the center and tapering toward each end. These have heretofore been forged on a mandrel by hand, which process is slow and expensive and the blanks are not accurate in all cases.

The object of my invention is to overcome these objections and to rapidly and perfectly form such blanks of uniform shape.

To this end my invention consists in providing dies of peculiar internal configuration for forming the blanks, adapted to be used with a drop, tilt, or steam hammer.

My invention is illustrated in the accompanying drawings, which form a part of this specification, in which similar letters of reference indicate like parts, and in which—

Figure 1 is a perspective view of one of the dies with a section of coupling-blank lying therein, and Fig. 2 an internal view of a central longitudinal section of a completed blank.

The die-blocks A, one only of which is shown, are similar in construction and are arranged to be attached to the hammer and anvil in the usual manner. Each block has

an internal semicircular recess B, of such configuration as to form the blank C of the form shown—that is, deepest in the center and thence tapering toward each end, where the corners are preferably slightly rounded. At each end of this recess and in axial alignment with it are semicircular grooves D D of the same internal diameter as the blank C.

In operation, the dies being placed in the hammer and arranged to register accurately, the couplings of flat bar-iron or specially-prepared bars are turned, brought to a welding heat, and placed on a mandrel that forms the bore of the blank. The mandrel bearing the heated ring is then placed in the grooves D D of the lower die, with the heated ring in the recess B, and the upper die being put in operation welds, swages, and shapes the ring to the desired blank.

I claim as my invention—

Dies for forging pipe-coupling blanks, each having a semicircular internal recess adapted to shape the exterior of the blank, deepest at center and tapering toward and rounded at the ends, with semicircular grooves in axial alignment with the recess to receive the mandrel on which the blank is forged, substantially as shown and described.

In testimony that I claim the above I hereunto set my hand.

THOMAS J. BRAY.

In presence of—

H. R. GILBERT,  
E. B. MCCRUM, Jr.