

W.D. ALFORD.

Pipe Coupling Core Box.

No. 121,266.

Patented Nov. 28, 1871.

Fig. 1.

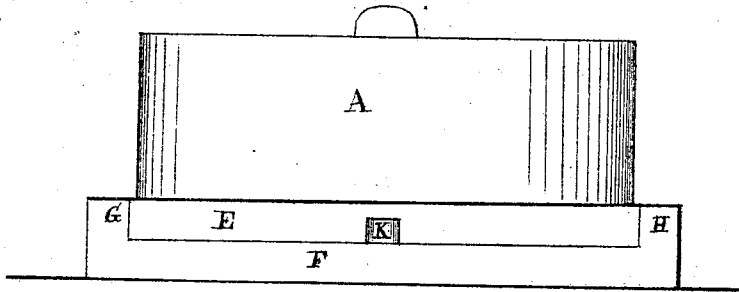


Fig. 2.

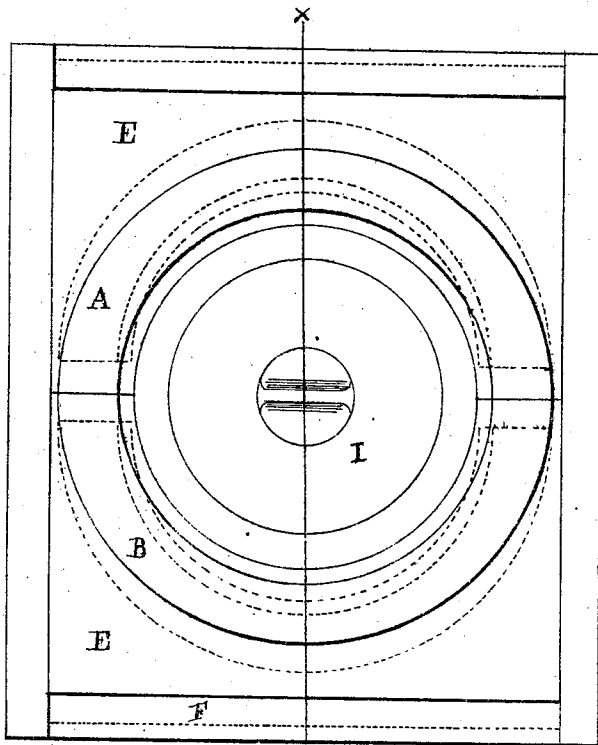
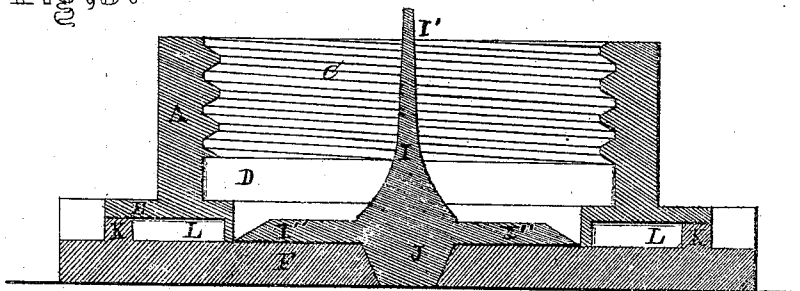


Fig. 3.



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WILLIAM D. ALFORD, OF CUYAHOGA FALLS, OHIO.

IMPROVEMENT IN CASTING FEMALE SCREWS.

Specification forming part of Letters Patent No. 121,266, dated November 28, 1871.

To all whom it may concern:

Be it known that I, WILLIAM D. ALFORD, of Cuyahoga Falls, in the county of Summit and State of Ohio, have invented a certain new and Improved Pipe-Coupling Core-Box; of which the following is a description, reference being had to the accompanying drawing making part of this specification.

Figure 1 is a side view of the core-box. Fig. 2 is a plan view. Fig. 3 is a transverse vertical section in direction of the line *x x*.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a core-box for casting nuts for pipe-couplings, and the object of which is to so form the core for the nut that the thread thereof shall be so true and perfect that it shall require no fitting in order that it may run freely upon the male thread.

The construction and operation of the box is as follows: This core is constructed in two sections, A B, Figs. 1 and 3, each section being one half of the box, vertically divided, as shown in Fig. 3. C is the thread therein, and which, as will be observed, does not extend to the entire depth of the box, but down to a recess or chamber, D, near the bottom E of the box. Said bottom is attached permanently to the sides of the box, and upon which it stands on the plate or bed F. Each side of said plate is provided with a flange, G H, Fig. 1, between which the bottom of the core-box is closely fitted, but not so close as to prevent the core-box from sliding therein. The sides or flanges serve as guides for the movement of the sections of the core-box, and whereby they are caused to move toward or away from each other in a true and exact line, and that without any lateral movement. I, Fig. 3, is the core-lifter, consisting of the stem I', the lower end of which is provided with a conical point, J, fitted in a corresponding hole in the bottom of the plate F. Between I and J is a flange or circular plate, I'', and whereby said lifter is retained in its central relation to the core-box. As above said, this box is for making the cores for coupling nuts used for connecting sections of pipe together. In molding these nuts it is essentially necessary that the thread of the nut shall be as perfectly made as

it can be, so that it will run on the male thread without first being finished up for that purpose. Hence, to accomplish this fact the core-box must be made to open and close in the most perfect manner in order to produce the threads for the nuts true, smooth, and free of fins. To produce a nut thus perfect in the casting is the purpose of having the sections of the core-box A B accurately fitted to each other, so that the threads of each section shall exactly conform when the two sections are together. This I accomplish by fitting the bottom of the core-box to a smooth level plate or bed, F, provided with the flanges or sides G H, between which the bottom of the core-box is closely-fitted; hence, on drawing the sections of the box back, away from the core formed therein, they will move back in a right line without in the least disturbing the perfection of the threads on the core by any lateral movement. By this construction and arrangement of the box the two sections A B thereof cannot overlap each other and thereby produce an irregularity in the thread on the core, and as a consequence make an imperfect thread in the nut; nor can the thread on the core be injured by withdrawing the sections back therefrom, as they move back in a direct line and therefore leave the core smooth and unbroken. K, Fig. 1, is a dowel, projecting upward from the bed-plate F into corresponding grooves L, Fig. 3, cut in the under side of the bottom of the sections of the core-box. Said dowel, pins, and slots can be used instead of the flanges G H for guiding the movement of the sections of the core-box, or jointly therewith, as may be desired.

I am aware that core-boxes are made in two sections; therefore I do not claim, broadly, a two part core-box.

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

The core I, having a central point or stem J, and provided with the plate or flange I'', as arranged, and in combination with the sections of the core-box A B and plate E, as and for the purpose substantially set forth.

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Witnesses:

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