

(No Model.)

T. F. HARRIS.
DEVICE FOR FORMING BEADS IN MOLDS.

No. 508,385.

Patented Nov. 7, 1893.

FIG. 1.

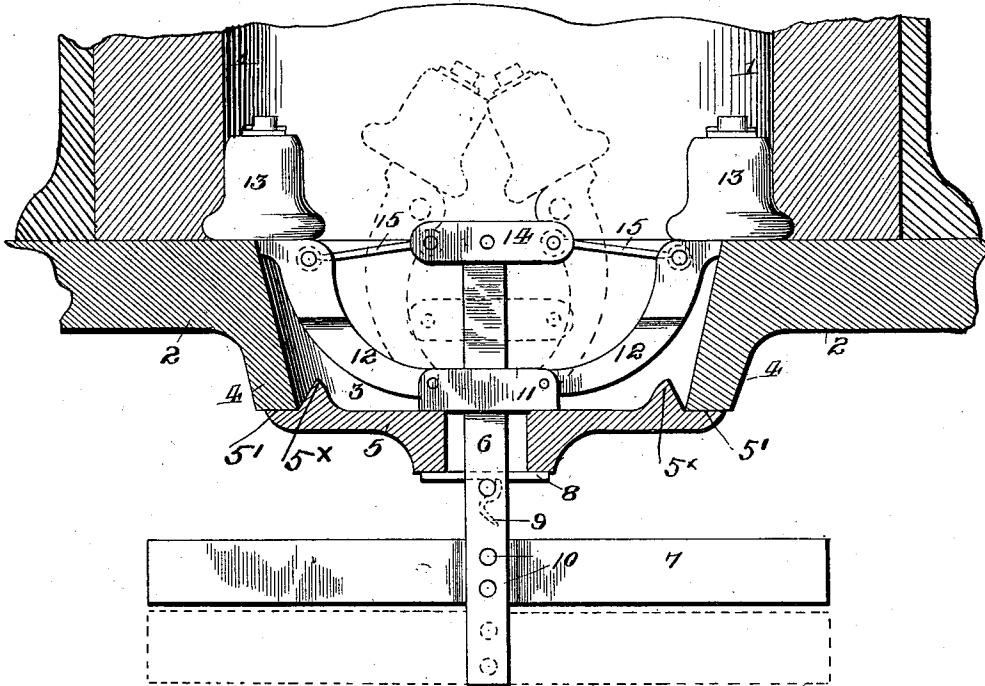
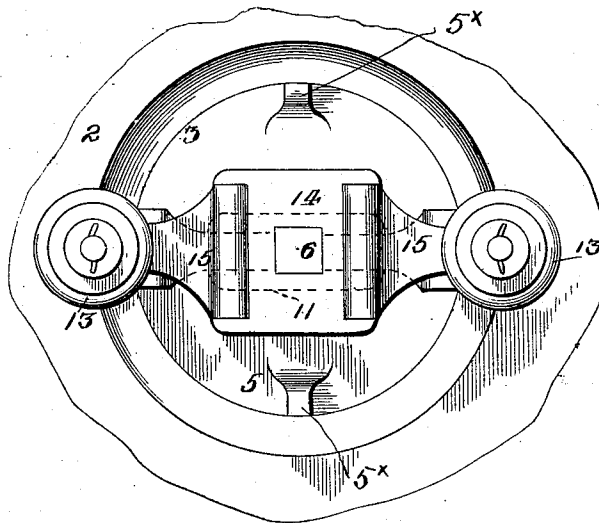


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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DEVICE FOR FORMING BEADS IN MOLDS.

SPECIFICATION forming part of Letters Patent No. 508,385, dated November 7, 1893.

Application filed July 12, 1893. Serial No. 480,261. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. HARRIS, a citizen of the United States, and a resident of Anniston, in the county of Calhoun and State of Alabama, have invented certain new and useful Improvements in Devices for Forming Beads in Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for forming beads in the mold when making cast-iron water or gas-pipes, and has for its object to provide simple and convenient means for forming said beads by inserting the device through the bottom of the mold, and pushing the same upwardly until it opens as far as is necessary, the parts being simple and effective in their construction and operation, and strong and durable.

With these ends in view, the invention consists of the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a sectional elevation of the improved device, shown in operative position. Fig. 2 is a top plan view of the device.

Similar numerals of reference are employed to indicate corresponding parts in both figures of the drawings.

Referring to the drawings, the numeral 1 designates the side walls of a sand mold, arranged for molding cast-iron water or gas pipes, and having a bottom support 2, with an opening 3 therethrough. The said bottom support 2 is supplied with a flange 4, and against the edge of the said flange is rested a collar 5 having a series of shoulders 5', diametrically opposed to each other, with a continuous flange 5' to thereby form an engaging seat, and to which is adjustably attached a centrally located stem 6, having an operating bar or handle 7. Across the central portion of the collar 5, on the handle of the same, is a strip or brace 8, to which is secured a spring-catch 9, and on the stem 6 are a series of studs, or pins 10, which are adapted to be engaged by the said catch 9, to hold the said stem in its adjusted position. The said stem is perfectly square or angular in cross section, and there-

on is loosely mounted a sleeve 11, having a small angular opening therein, and to the opposite sides of the said sleeve 11 are pivotally mounted the lower ends of a pair of arms 12, on whose upper ends are revolvably mounted suitably formed beading heads 13. The sleeve 11 normally rests on the upper side of the collar 5, and the stem 6 is adapted to be moved therethrough. The lower parts of the beading-heads 13 are adapted to rest upon the upper, inner exposed portion of the support 2, and impress their contour in the sand of the mold to form the desired bead.

Of course it will be understood that the stem 6 is freely movable through the collar 11, and to the upper end of the said stem is secured a cross-head 14, having the inner ends of links 15 pivotally connected to the opposite sides thereof. The outer edges of the links are movably attached to the arms 12 at points adjacent to the beading heads 13, and when the stem 6 is drawn downwardly, it forces the said beading heads inward toward each other, as shown in Fig. 1, and thereby contracts the lateral extent of the arms 12, and the beading heads to permit the same to be readily withdrawn or inserted through the opening 3 of the support 2.

The sleeve 11 is perfectly fixed to the collar 5, and the shoulders of the latter are so arranged that when placed against the flange 4 the device will be concentric with the mold. After the beading heads have been suitably adjusted in the mold, they are revolved by turning the stem 6, and the bead impressed equally throughout the entire lower portion of the said mold.

It will be seen that the construction of the device in general is exceptionally simple, and can be readily inserted from the bottom of a mold after the latter is formed and ready to receive the molten metal. It will also be understood that the contour of the beading heads 13 may be changed at will, to adapt the same for the formation of various shaped beads.

Having thus described the invention, what is claimed as new is—

1. In a beading device, the combination of a support, a collar supporting a sleeve with an angular opening therethrough, a stem vertically adjustable through the said sleeve, and

having a cross head at the upper end thereof, a pair of arms, pivotally connected to the opposite sides of said sleeve, and carrying revoluble beading heads at the upper ends thereof, and links pivotally attached to the said arms and to the cross-heads, whereby the adjustment of the said stem will control the position of the beading heads, substantially as described.

10 2. In a beading device adapted to be inserted in the bottom of a mold, the combination of a vertically adjustable stem, a sleeve through which the said stem passes, the said

stem being angular in contour, arms pivotally connected to said sleeve and having beading heads revolubly mounted on the upper ends thereof, and connections between the upper part of the said arms and the said stem, substantially as described. 15

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 20

THOMAS F. HARRIS.

Witnesses:

J. F. HENDERSON,
J. F. DOHERTY.