No. 736,344. PATENTED AUG. 18, 1903.

W. ALLDERDICE.

FAGOT FOR TUBE MAKING.

APPLICATION FILED SEPT. 23, 1902.

NO MODEL.

Fig. 1.

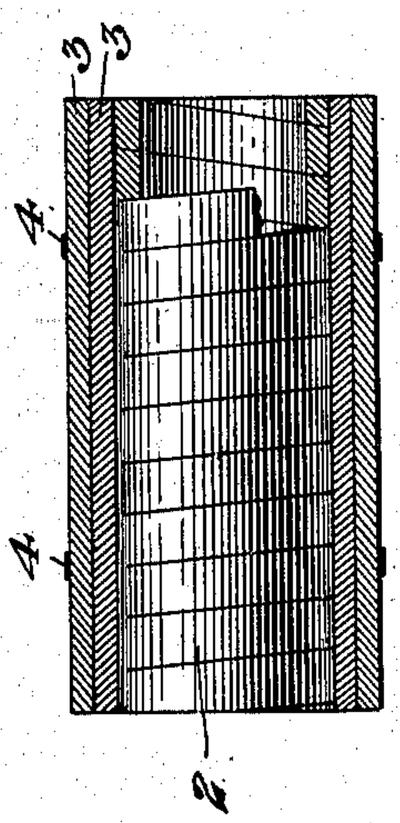


Fig. 2.

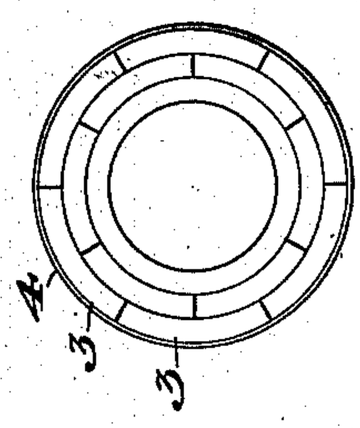


Fig. 3.

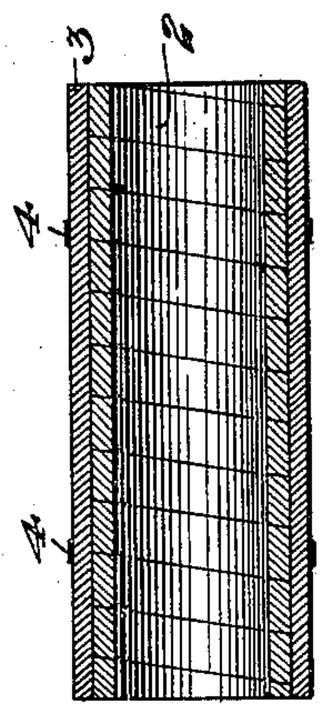


Fig. 4.

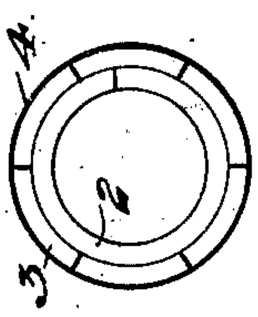


Fig. 5.

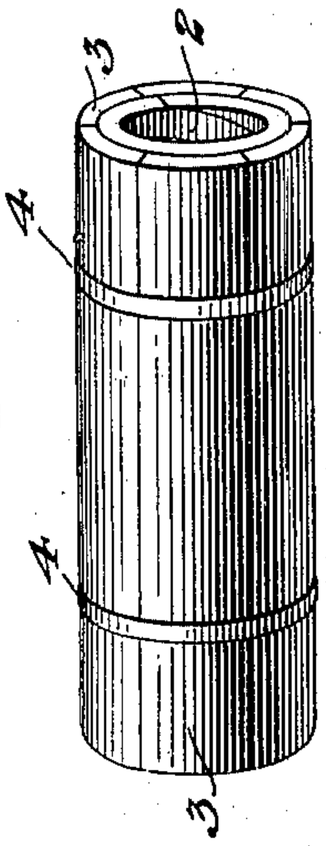
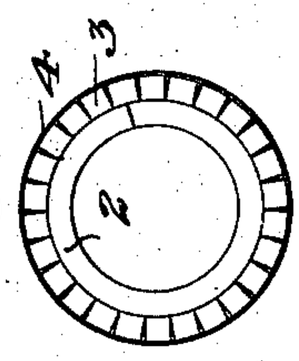


Fig. 6.



WITNESSES

L. A. Connett
W. M. Corwin

INVENTOR

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by Baldwin & Bynes
his attys

No. 736,344. Patented August 18, 1903.

UNITED STATES PATENT OFFICE.

WINSLOW ALLDERDICE, OF WARREN, OHIO.

FAGOT FOR TUBE-MAKING.

SPECIFICATION forming part of Letters Patent No. 736,344, dated August 18, 1903.

Application filed September 23, 1902. Serial No. 124,554. (No model.)

To all whom it may concern:

Be it known that I, WINSLOW ALLDERDICE, of Warren, Trumbull county, Ohio, have invented a new and useful Fagot for Tube-Making, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional side elevation of a fagot built up in accordance with my invention. Fig. 2 is an end view of the same. Fig. 3 is a longitudinal central section showing another form of the fagot. Fig. 4 is an end view of the form of Fig. 3. Fig. 5 is a perspective view of the pile of Fig. 3, and Fig. 6 is an end elevation showing another form.

My invention relates to the making of tubes by welding a fagot or pile, which is then rolled or drawn out to form the tube, and more especially to the making of boiler-tubes or wrought iron or steel pipe, though it may be used for making any tubing or hollow cylindrical articles.

The invention consists in forming a fagot by winding a bar of quadrilateral cross-section, preferably in the form of a trapezoid approximating a rectangle, and in combining with this coiled portion a surrounding casing, preferably consisting of one or more external layers of longitudinal staves, which are bound or otherwise held in position around the coil.

It further consists in the construction and arrangement of the fagot, as hereinafter more fully described, and set forth in the claims.

In the drawings, referring to the forms of Figs. 1 and 2, 2 represents a coiled bar, which bar in cross-section is that of a trapezoid approximating a rectangle, the ends of the rectangle being at slight angles in order to allow the face of one coil to fit more closely against that of the next when the coil is formed. In this coil the edges of the successive coils fit closely together, and the iron or steel bar is preferably coiled while hot. After the coil is formed it is covered with a casing. I have shown this as consisting of longitudinal staves 3, two layers being shown in this form, and these layers are preferably held in place by outer bands 4, of binder-iron or other suitable material. The staves are here shown as formed so that their meeting edges lie approximately in radial planes passing through the center of the cylindrical fagot, so that these edges fit neatly together to make a compact pile or fagot.

In the form of Figs. 3, 4, and 5 I show a form similar to that of Figs. 1 and 2, except that a single layer of the staves 3 is employed around the coil 2. This is my preferred form of the fagot, though I do not intend to limit myself to any particular number of layers, as any desirable number may be used, depending upon the thickness and size of the tube desired.

In Fig. 6 I show a form similar to that of Fig. 3, except that the longitudinal bars are square or rectangular in cross-section, the edges, therefore, not being radial. In the heating and rolling the spaces between these bars are closed up.

After the pile or fagot has thus been formed it is placed in a heating-furnace and brought up to a welding heat, after which it is passed through a number of roll passes, preferably three in number, to set the weld between the parts of the pile. These passes are preferably plain welding-passes without any balls or mandrels, though a mandrel may be used in one or more of them, if desired. The welded pile thus formed is preferably taken to the apparatus described and claimed in my copending application, Serial No. 124,553, filed September 23, 1902, though it may be treated in any suitable apparatus used for rolling hollow piles into tubes or pipes.

The advantages of my invention result from the cheapness and ease of forming the fagot, which is easily assembled and bound in position and, further, from the strength of the resulting tube or pipe. On account of the trapezoidal form of the coiled bar and the surrounding layer of staves the joints become firmly and securely welded together, while the rolls do not tend to separate the coils. The fagot when formed and bound together holds itself firmly in position, so that it can be readily handled without danger of separating.

Many changes may be made in the cross-section of the coiled bar and the staves, as well as in the number and size of the staves, the number of layers, &c., without departing from my invention.

I claim—

1. A fagot for tubes comprising a coiled bar

of quadrilateral cross-section, and a surrounding casing for the same; substantially as described.

2. A fagot for tubes comprising a coiled bar of quadrilateral cross-section, and longitudinal staves bound around the coil; substantially as described.

3. A fagot for tubes comprising a coiled bar of trapezoidal cross-section with the edges of the successive coils fitting neatly together, and longitudinal staves bound around the outside of the coil; substantially as described.

4. In a fagot for tube-making, a hollow coil and longitudinal staves bound around the coil, said staves having substantially radial edges fitting neatly together; substantially as described.

In testimony whereof I have hereunto set my hand.

WINSLOW ALLDERDICE.

Witnesses:
L. M. REDMAN,
H. M. CORWIN.