G. L. WAITT.

CHAPLET FOR MOLDING.

APPLICATION FILED SEPT. 30, 1910.

1,010,542.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.

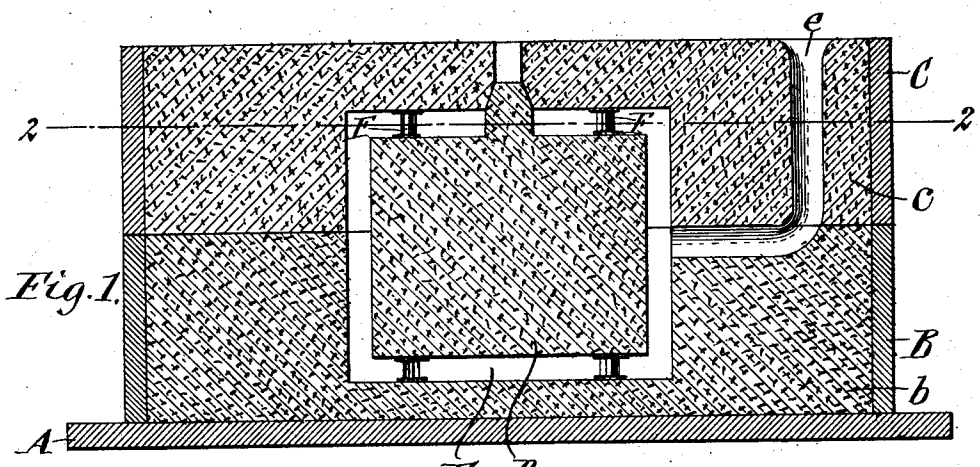


Fig. 1.

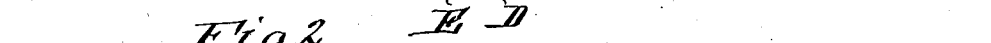
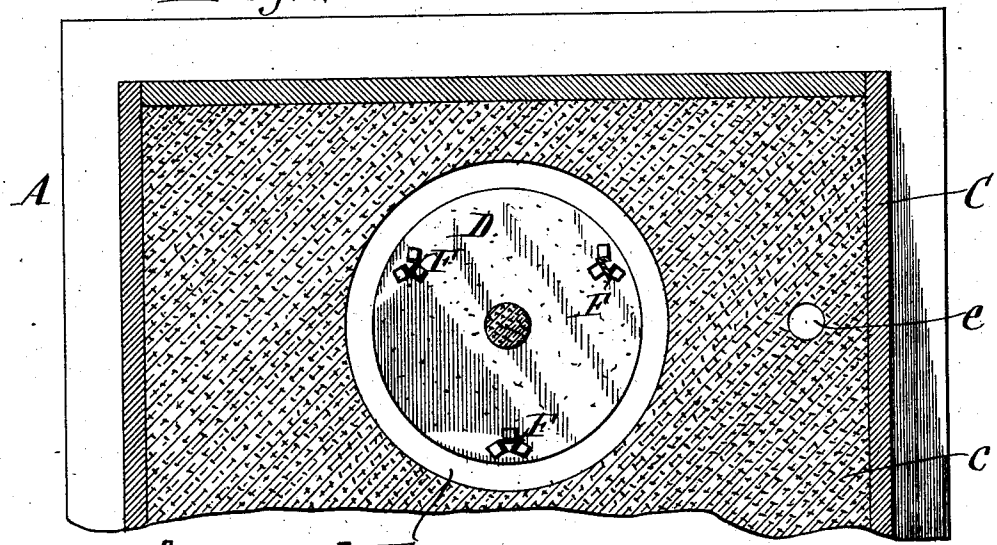


Fig. 2.



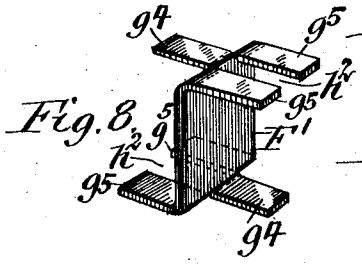


Fig. 8.

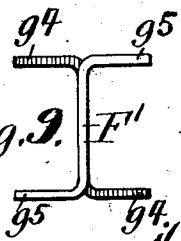


Fig. 9.

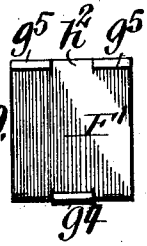


Fig. 10.

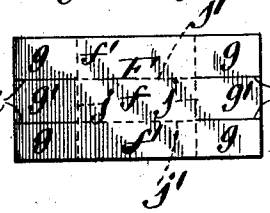


Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

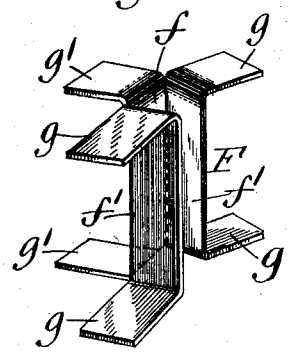


Fig. 6.

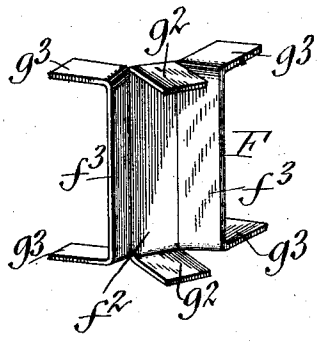


Fig. 5.

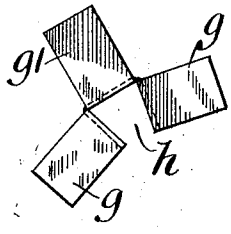
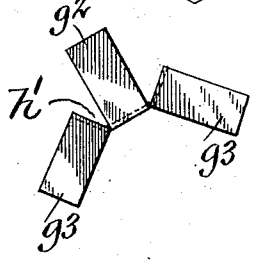


Fig. 7.



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UNITED STATES PATENT OFFICE.

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CHAPLET FOR MOLDING.

1,010,542. Specification of Letters Patent. Patented Dec. 5, 1911.

Application filed September 30, 1910. Serial No. 584,703.

To all whom it may concern:

Be it known that I, GEORGE L. WAITT, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Chaplets for Molding, of which the following is a specification.

This invention relates to a chaplet for holding the core of a mold in place and preventing displacement thereof, particularly while pouring the metal into the cavity of the mold.

The purpose of this invention is the production of a chaplet of this character which can be produced at comparatively low cost and which will hold the parts of the mold reliably in place relatively to each other.

In the accompanying drawings: Figure 1 is a vertical section of a molding flask equipped with my improved chaplet. Fig. 2 is a horizontal section in line 2—2, Fig. 1. Fig. 3 is a plan view of a sheet metal blank from which my improved chaplet is constructed. Fig. 4 is a perspective view of one form of my improved chaplet. Fig. 5 is a top plan view thereof. Fig. 6 is a perspective view of another form of my improved chaplet. Fig. 7 is a top plan view thereof. Fig. 8 is a perspective view of still another form of chaplet embodying my invention. Figs. 9 and 10 are edge and side views, respectively, of the last-mentioned construction.

Similar letters of reference indicate corresponding parts throughout the several views.

The parts of the mold shown in the drawings for illustrating the use of my improved chaplet comprises a bottom board A, a nowel or drag B resting on the bottom board and containing the lower part *b* of the molding sand, C the cope containing the upper part *c* of the sand, and D the core arranged between the nowel and cope and forming therewith the mold cavity E of the casting which is to be produced. The metal is poured into the mold cavity through a sprue *e*.

For the purpose of supporting the core properly between the sand of the cope and nowel, one or more chaplets are interposed between the core and outer walls of the mold cavity, the number of chaplets and the disposition of the same depending on the character and shape of the mold. As shown in the drawings, the mold is designed to produce a hollow cylindrical casting and three chaplets are interposed between the upper side of the core and the sand of the nowel and a like number is interposed between the underside of the core and the sand of the nowel.

The form of chaplet embodying my invention which is shown in Figs. 1–5 is constructed as follows: F represents an upright standard which is composed of a central upright web f and two side flanges f^1, f^1 which are arranged at opposite edges of the web f and at such an angle thereto that the side flanges converge from the web. At each end of the standard the same is provided with a set of three bearing lugs g, g, g^1, of which the two g, g are at the side of the standard and constitute a pair and project laterally and at an angle relatively to each other from one end of the side flanges while the single central bearing lug g^1 projects laterally from the respective end of the central web in a direction opposite to the outwardly narrowing space h between the side lugs and at an angle to both of the side lugs. Three bearing points are thus provided at each end of the chaplet which points are arranged substantially equidistant in an annular row, thereby distributing the bearing surface of the chaplet uniformly, whereby the chaplet is prevented from tipping and caused to reliably hold the core in place.

If desired, the side flanges f^3, f^3 of the standard may be arranged so that they diverge relatively to the central web f^2, as shown in Figs. 6 and 7, in which case the single central bearing lug g^2 of each set projects into the outwardly enlarging space h^1 between the side flanges and is arranged at an angle to the companion side lugs g^3, g^3 which project in the opposite direction and at an angle to each other from the side flanges.

Instead of constructing the standard of a central web and two side flanges, this standard may be made flat as shown at F^1, Figs. 8, 9 and 10, and the two sets g^4, g^5 of bearing lugs at opposite ends thereof so arranged that the outer two lugs g^5 of each set forming a pair project in one direction while the central single lug g^4 of the respective set projects in a direction opposite the parallel sided space h^2 between the lugs g^5.

The chaplet shown in Figs. 4–7 is preferably constructed from a rectangular blank of sheet metal which is slitted and bent into

the desired shape. As shown in Fig. 3, the blank is first provided at each of its ends with two longitudinal parallel slits i forming set of three lugs g, g, g^1 at each end of the blank. The bearing lugs are then bent on the transverse line j at right angles to the central part of the blank constituting the standard, after which the two side flanges are bent on the longitudinal lines j^1, j^1, so that these flanges are arranged at an angle to the central web. In the production of the chaplet shown in Figs. 8, 9 and 10, the standard is not bent on the lines j^1 j^1 thereby leaving the same flat.

A chaplet of this character constructed of a given weight of metal is much stronger and cheaper than other chaplets heretofore in use of the same amount of metal, the same can be produced quickly by inexpensive tools, and no waste occurs in their manufacture, thereby materially reducing the cost of manufacture and still producing a chaplet of maximum efficiency.

I claim as my invention:

1. A chaplet constructed from a rectangular sheet of metal by producing a pair of parallel longitudinal slits at each end of said blank leaving a flat unslitted central part which forms the standard of the chaplet, each slitted end of said blank forming a set of three lugs those two thereof which are arranged at opposite longitudinal edges of the blank being bent laterally in one direction while the third one intermediate of the other two is bent laterally in the opposite direction.

2. A chaplet comprising a standard having an upright central web and two upright side flanges arranged at opposite vertical edges of the central web and at an angle relatively thereto, and two sets of bearing lugs each set comprising two side lugs arranged at an angle relatively to each other and projecting laterally from the respective ends of the side flanges, and a central lug arranged between the companion side lugs and projecting laterally from the respective end of the web in a direction opposite to the companion side lugs and at an angle to the latter.

3. A chaplet comprising a standard having an upright central web and two upright side flanges arranged at opposite vertical edges of the central web and at an angle relatively thereto, and bearing lugs arranged at opposite ends of the web and flanges and projecting laterally therefrom.

Witness my hand this 21st day of September, 1910.

GEORGE L. WAITT.

Witnesses:

THEO. L. POPP,

ANNA HEIGIS.