No. 636,438. Patented Nov. 7, 1899.

F. C. LOVEJOY.

MOLDER'S CHAPLET.

(Application filed Feb. 8, 1899.)

(No Model.)

Fig. 1.

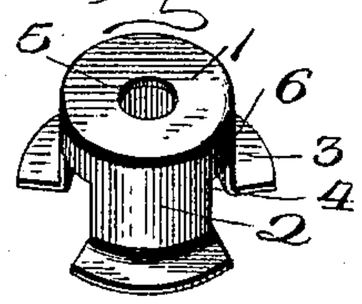


Fig. 2.

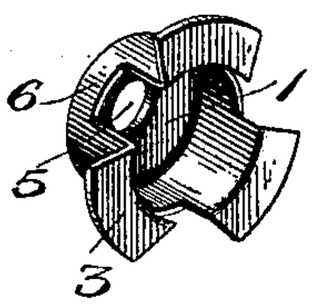
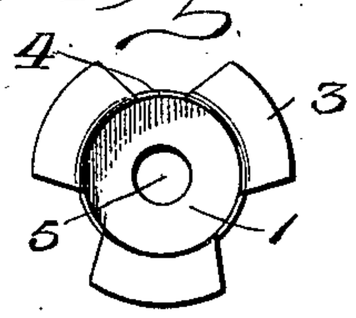


Fig. 3.



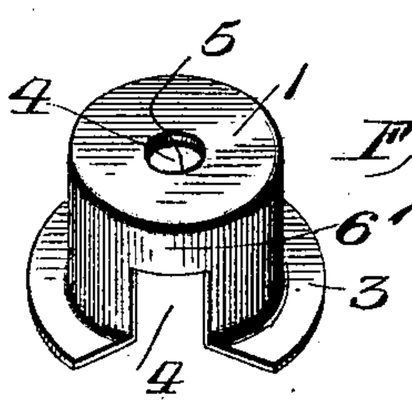


Fig. 4.

Fig. 5.

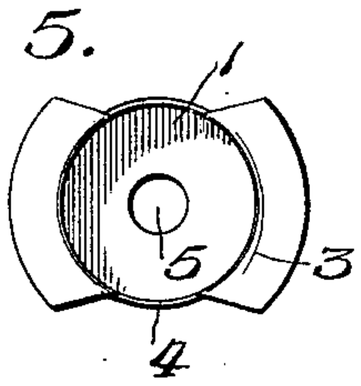


Fig. 7.

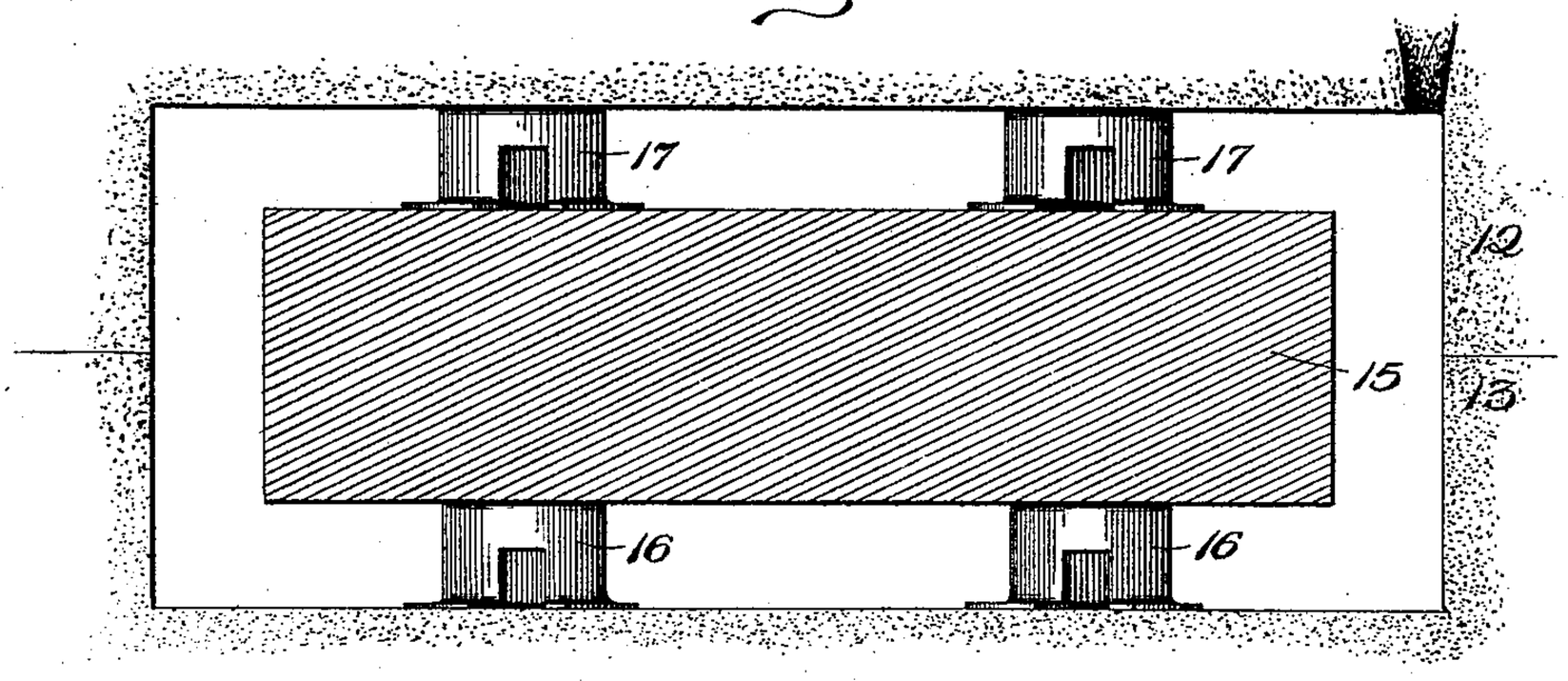
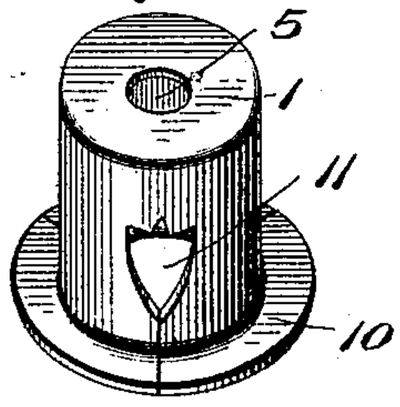


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

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MOLDER'S CHAPLET.

SPECIFICATION forming part of Letters Patent No. 636,438, dated November 7, 1899.

Application filed February 8, 1899. Serial No. 704,921. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK C. LOVEJOY, of Shushan, in the county of Washington and State of New York, have invented certain new and useful Improvements in Molders' Chaplets; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates particularly to that class of devices known as "founders' chaplets," which are adapted to be used for supporting the cores in molds for producing metallic or other castings, and has for its object to provide a chaplet that shall be cheap, simple, light, and capable of sustaining a reasonably heavy core without being flattened or depressed into the sand.

To these ends my improvement consists in the hereinafter-described chaplet, the novel features of which will be pointed out in the claims at the end of this specification.

In the drawings, Figures 1 and 2 are respectively top and bottom perspective views; Fig. 3, a bottom plan view of the perferred form of chaplet; Figs. 4 and 5, respectively, perspective and bottom plan views of a modification; Fig. 6, a view of a modification adapted particularly for supporting cores of unusual size and weight; Fig. 7, a sectional view through a mold, showing the application of my device to support a core.

Similar reference-numerals in the different figures indicate similar parts.

In the manufacture of hollow castings employing cores of considerable length or those supported only from one end or upon core prints of insufficient diameter to sustain the weight of the body one of the difficulties experienced has been to employ a means for holding the unsupported end of the core, preventing the latter from being broken by its own weight or by the force of the molten metal, and still be embedded in the iron without weakening the casting or requiring any portion of the support to be removed therefrom. In the present embodiment of my invention I employ a circular cap adapted to be stamped from blanks of thin sheet metal, such as tin, having the flat top 1 and the outwardly-extending feet or flanges 3. A space forming the slots or apertures 4 is provided between each of the legs 2 to allow the molten metal to flow freely between and to surround and embed the latter, and an aperture 5 in the top of the cap permits the escape of any gas that may be formed and the even flow of the metal.

In forming the chaplet and adapting the same for sustaining a heavy core and to prevent it from springing or flattening out when pressure is applied I provide a stiffening-rim 6, integral with the upper part of the legs and extending across the top of the apertures or slots 4.

In Figs. 4 and 5 I have shown a modification differing slightly from the form already described in that there are but two supporting-legs, a form easily manufactured and convenient to use in chaplets of greater diameter, and in Fig. 6 is shown another modification, a form adapted particularly for chaplets of considerable height, embodying the same principles of construction as the smaller sizes, but having the flanges or feet 10 abutting at their proximate edges beneath the apertures 11, affording an increased area of bearing-surface and adapted to support larger and heavier cores without being depressed in the sand.

The use of the chaplets will be easily understood by reference to Fig. 7, in which the upper and lower sections of the mold are indicated by 12 and 13, respectively, containing a rectangular core 15, supported upon the bottom by chaplet 16 placed upon the lower surface of the mold and held from vertical or lateral movement occasioned by the inflowing metal by those indicated by 17, which are arranged between the upper surface of the mold and top of the core. When the metal is poured into and fills the mold, the core is surrounded and the chaplets embedded in the walls of the casting.

The chaplets may be made cheaply in various sizes of lengths and diameters, and by constructing the devices of tin-plate the tin coating is melted by contact with the molten metal and serves to solder the parts, and the chaplets being embedded entirely in the metal

and having no projection to be removed are adapted particularly to be used in all cases where a smooth finish and nicety of workmanship are desired.

I claim as my invention—

1. As an article of manufacture, a founder's chaplet composed of a single piece of cup-shaped sheet material and embodying a substantially flat top with the laterally-projecting feet or flanges at the lower end.

2. As an article of manufacture, a founder's chaplet constructed from a single piece of cup-shaped sheet metal and having the laterally-extending flanges at the lower end and openings at the top and sides to permit the ready flow of metal around and through it.

3. As an article of manufacture, a shell formed with a flat top having an aperture therein, legs extending from the top with flanges upon their extremities extending in a plane parallel to the plane of the top, and apertures or slots between the legs.

4. As an article of manufacture, a cap or thimble having a flat top, an aperture therein, and apertures formed in the side of the cap, and a flange extending around the base thereof.

5. As an article of manufacture, a founder's chaplet formed from a sheet-metal blank, having the top and apertures therein, and a depending flange formed upon the periphery thereof, having slots or apertures therein, forming legs, the lower ends of the latter having flanges or feet.

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Witnesses:
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