No. 863,816. PATENTED AUG. 20, 1907.

F. VOLLMER.

CHAPLET.

APPLICATION FILED FEB. 21, 1907.

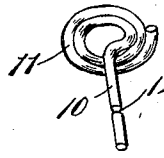


Fig. 1

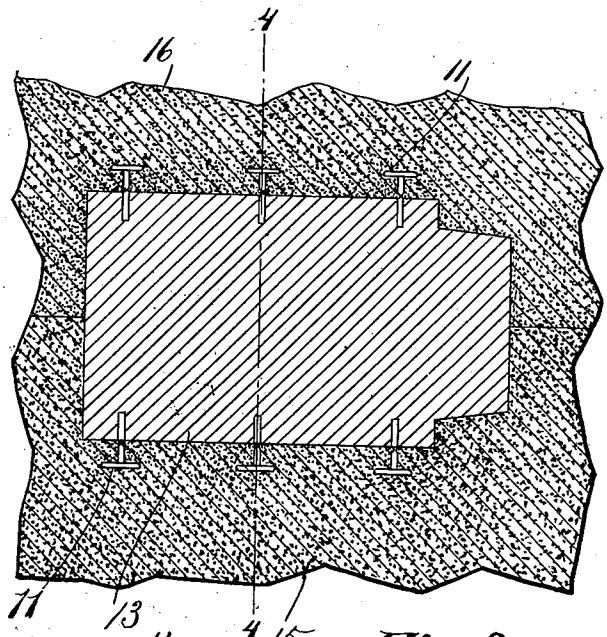


Fig. 2.

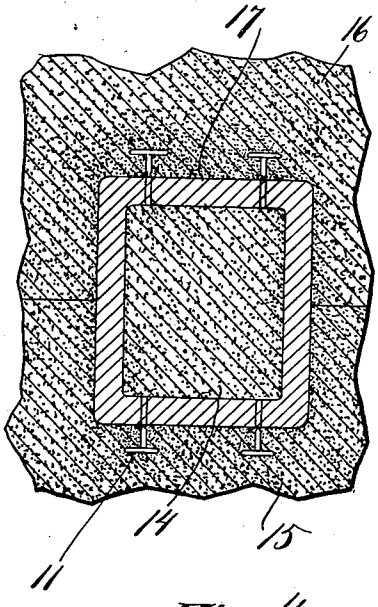


Fig. 4

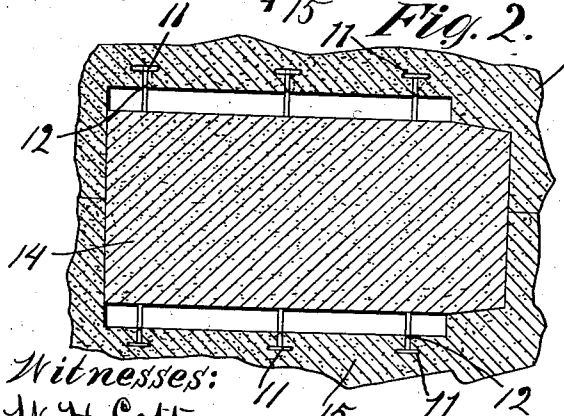


Fig. 3.

Witnesses:
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Louis K. Gillson Atty.

UNITED STATES PATENT OFFICE.

FREDERICK VOLLMER, OF BUFFALO, NEW YORK, ASSIGNOR TO AMERICA RADIATOR COMPANY, A CORPORATION OF NEW JERSEY.

CHAPLET.

No. 863,816. Specification of Letters Patent. Patented Aug. 20, 1907.

Application filed February 21, 1907. Serial No. 358,597.

To all whom it may concern:

Be it known that I, FREDERICK VOLLMER, a citizen of the United States, and a resident of Buffalo, county of Erie, and State of New York, have invented certain new and useful Improvements in Chaplets, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to chaplets used in the molder's art for the purpose of sustaining a core within the mold; and it consists of a metal rod adapted to be implanted within the sand and project into the chamber of the mold a sufficient distance to support a core in the proper position, and being frangible at a point which will be at the surface of the casting formed within the mold.

The object of the invention is to provide means for the easy removal of the chaplet from the casting.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a perspective of the chaplet; Fig. 2 is a detail sectional view of the mold with the pattern and chaplets within the sand; Fig. 3 is a similar view, the pattern being removed and the core being in place; and Fig. 4 is a transverse section on the line 4—4 of Fig. 2, the metal having been poured.

The chaplet is preferably made of wire and has a straight shaft 10 and a head 11 formed by coiling the wire spirally in a plane perpendicular to the shaft.

The shaft 10 of the chaplet is rendered frangible at a point removed from its end a distance equal to the thickness of the casting to be formed, as shown this frangibility is secured by means of an annular channel 12 encircling the chaplet shaft.

In use the chaplets are inserted in suitable apertures formed in the pattern 13, the depth of these apertures corresponding with the thickness of the metal desired. The pattern, with the chaplets, being placed within the sand and the latter rammed, the pattern may be lifted out, leaving the chaplets in position to support the core 14. The drag 15 and the cope 16 having been thus formed, the core 14 is placed within one member of the mold resting upon the chaplets, and the other member of the mold being closed down upon it the chaplets therein will rest upon it and prevent it from floating when the metal is poured.

When the metal 17 is introduced, it is chilled upon the chaplets so that when the casting is removed from the sand they must be removed by cutting or breaking. The frangible portion 12 of the chaplet is necessarily at the surface of the casting, and is easily broken in the operation of brushing off the sand, if necessary the operator striking the chaplet a blow with the back of his brush. In practice many of the chaplets will be broken off as the casting is dumped from the mold, and such as remain are removed without materially increasing the labor of the cleaner.

For the purpose of illustration, a conventional form of casting is shown. While the channel 12 affords an exceedingly simple means of increasing the frangibility of the chaplet at the desired point, any method whereby the chaplet is rendered frangible at a point which will be at the surface of the casting comes within the scope of the invention.

I claim as my invention—

1. A chaplet having its point of greatest frangibility at the surface line of the casting to be formed.

2. A chaplet of greater frangibility at a point corresponding with the surface line of the casting to be formed than out side of such line.

3. A chaplet comprising a shaft having an annular channel located at a distance from its end corresponding with the thickness of the casting to be formed.

4. A chaplet comprising a shaft having a notch located at a distance from its end corresponding with the thickness of the casting to be formed.

5. A chaplet made of a rod and having a shaft portion and a head formed by coiling the rod spirally in a plane transverse to the shaft, the shaft being notched at a distance from its end corresponding with the thickness of the casting to be formed.

FREDERICK VOLLMER.

Witnesses:
J. P. MULLANEY,
J. W. CHEETHAM.

It is hereby certified that the name of the assignee in Letters Patent No. 863,816, granted August 20, 1907, upon the application of Frederick Vollmer, of Buffalo, New York, for an improvement in "Chaplets," was erroneously written and printed "America Radiator Company," whereas said name should have been written and printed *American Radiator Company;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 17th day of September, A. D., 1907.

[SEAL.]

E. B. MOORE,

Commissioner of Patents.