D. C. MULVIHILL.

CHAPLET.

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1,325,749.

Patented Dec. 23, 1919.

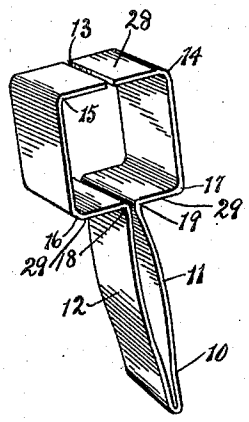


Fig. 1.

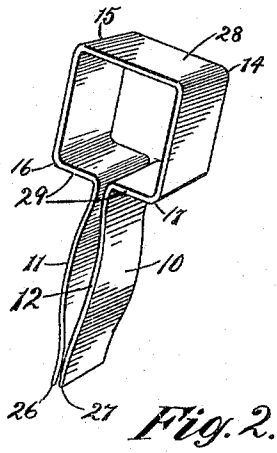


Fig. 2.

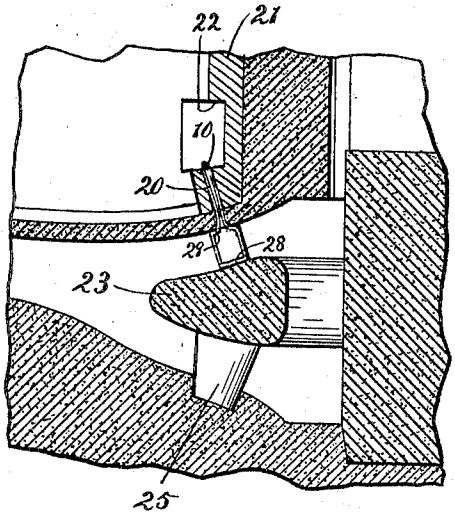


Fig. 3.

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CHAPLET.

1,325,749. Specification of Letters Patent. **Patented Dec. 23, 1919.**

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To all whom it may concern:

Be it known that I, DANIEL C. MULVIHILL, a citizen of the United States of America, and resident of Hannibal, county of Marion, and State of Missouri, 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 object of the invention is the provision of a chaplet which may be inserted in suitable openings in a flask part, usually the cope, and which will remain in any adjusted position; which will coact with openings differing slightly in size and which is so formed as to act as its own gage for its projection from the face of the mold.

In the accompanying drawings;

Figures 1 and 2 are perspective views of different embodiments of the invention, and

Fig. 3 is a detail section of a mold showing the chaplet in place and resting against a core.

A difficulty which has been found with chaplets heretofore used has been that the molten metal will either fuse the chaplet, allowing the core to float in the mold and thereby cause the mold to blow up, or will be burned off to produce a like result. Moreover, since the form of cope which is ordinarily used in the formation of car wheels has been made of cast iron the openings for the chaplets vary in size to such an extent that a cast chaplet would not fit all the different holes encountered. Therefore it has been the practice, while using cast chaplets, to wrap a piece of paper about the shaft of the chaplet to cause the same to fit in the hole. In addition to this inconvenience it has been necessary to use a gage to determine the projection of the chaplet when placing the same in position. The above inconveniences are obviated by the use of the present invention. The chaplet disclosed is preferably made of strap metal and a form of soft steel is used which has the proper carbon content to be not affected deleteriously by the pouring of metal.

The chaplet comprises a shank 10, formed of two parts, as 11 and 12, resulting from bending the strap upon itself. In the form shown in Fig. 1, the ends of the strap of which the chaplet is formed occur at 13, the metal of which the strap is formed being bent at right angles at 14 and 15, again at 16, 17, and at 18, 19. The parts 11 and 12 of the shank are given an outward bow in order, by their resilience, to press against the side of the opening 20 provided in the cope 21 for their reception. To permit the formation of this opening the cope 21 is formed with a slight thickening of its walls, as at 22. 23 represents the core which it is desired to hold in place by the chaplet, and 25, the legs of the core coöperating with the core print in the mold to locate the core. The article, the molding of which is illustrated in Fig. 3, is a car wheel.

In the form of the invention shown in Fig. 2 the two ends of the strip of which the chaplet is formed occur at 26 and 27. The portions 11 and 12 are bowed, as in the former case, but the member 28 of this modification is continuous from end to end.

In use the chaplet is inserted in the opening in the cope and driven until the portions 29 come into contact with the sand of the mold. The vertical extent of the chaplet from 28 to 29 being constructed to equal the thickness of one of the plates of the car wheel, no measurement is necessary to determine the distance to drive. The portions 29 will, by pressing against the sand, assist the friction of the portions 11 and 12 against the opening in preventing the chaplet from being pressed upwardly by the tendency of the core to float.

In the course of considerable experience with the chaplet herein described there has yet to occur the first instance of a mold blowing up because of the failure of the chaplet.

I claim as my invention:

1. A chaplet having a resilient shank so shaped as to be laterally compressible whereby it is adapted to resiliently engage an opening in a flask part.

2. A chaplet formed of a single strap of spring steel bent to form a box-shaped head, and a compressible shank, adapted to resiliently engage the walls of an opening in a flask part.

3. As an article of manufacture, a chaplet comprising a head and a shank adapted to resiliently engage an opening in a flask part.

4. As an article of manufacture, a chaplet composed of soft steel having a head and

a shank, said shank comprising two outwardly bowed members adapted to frictionally engage the walls of an opening.

5. As an article of manufacture, a chaplet comprising a head and a shank, said head having a flattened end portion for contact with the core, a shoulder separated from said head a distance equal to the distance of the projection of the chaplet from the mold, and a shank adapted to resiliently engage the walls of an opening.

6. A chaplet comprising a strip of metal bent to form a head, portions of said strip bent at an angle from one side of said head substantially parallel with each other to form a shank adapted to be inserted in an opening in a flask part.

7. A chaplet comprising a strip of resilient metal bent to form a head, portions of said strip projecting from one side of the head in substantial parallelism to form a shank, said portions being spaced apart in a portion of the shank and adapted to be pressed toward each other against the spring of the metal.

8. A chaplet comprising a strip of resilient metal bent to form a quadrangular head, portions of said strip projecting intermediately of one side of the head to form a shank said portions being spaced apart in a portion of said shank, their extremities approaching each other at an acute angle.

DANIEL C. MULVIHILL.