F. D. ZINNO.

STIRRER FOR MOLTEN BRASS MIXTURES.

APPLICATION FILED MAY 6, 1918.

1,270,583. Patented June 25, 1918.

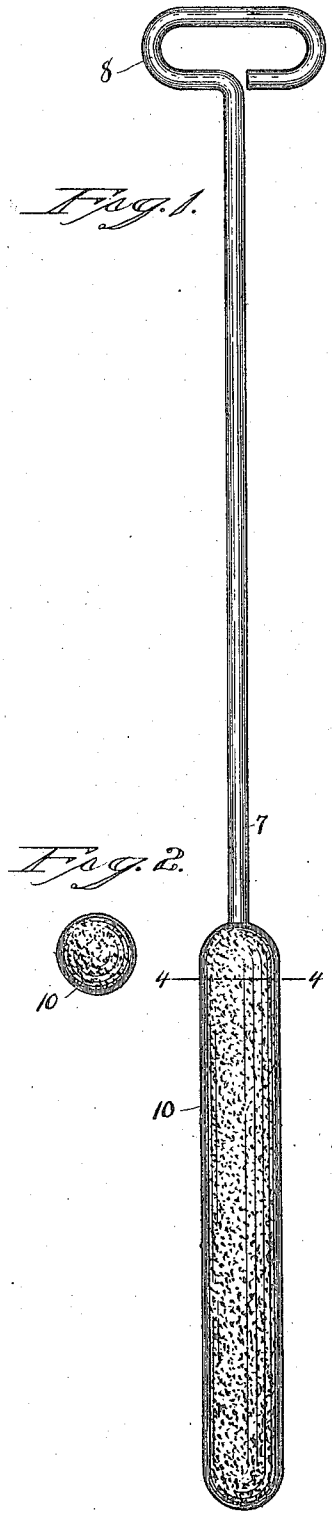


Fig. 1.

Fig. 2.

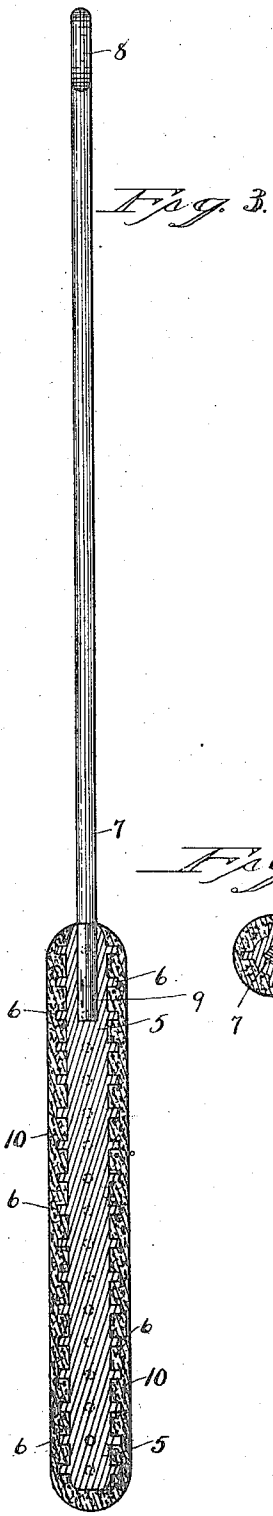


Fig. 3.

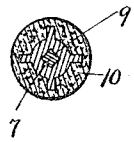


Fig. 4.

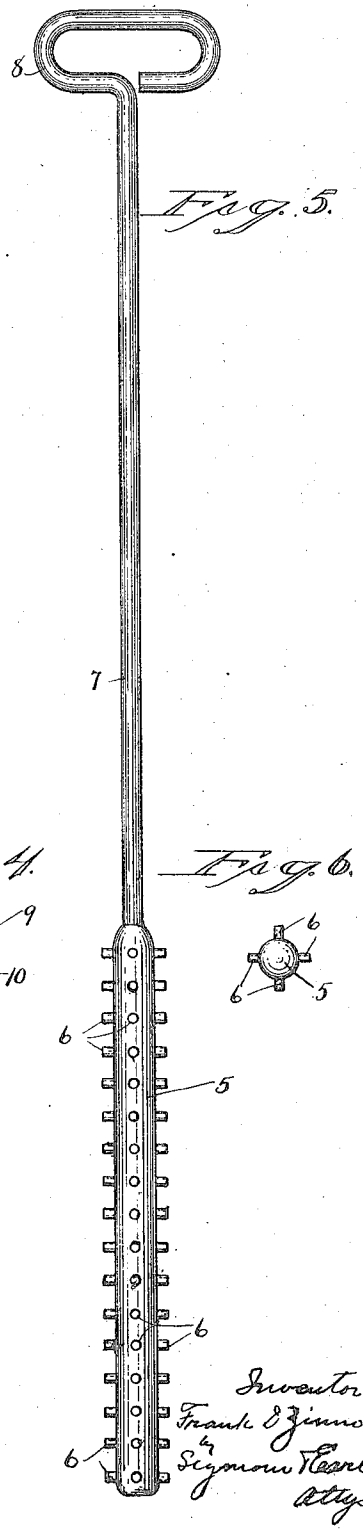


Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

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STIRRER FOR MOLTEN-BRASS MIXTURES.

1,270,583. Specification of Letters Patent. Patented June 25, 1918.

Application filed May 6, 1918. Serial No. 232,719.

To all whom it may concern:

Be it known that I, FRANK D. ZINNO, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Stirrers for Molten-Brass Mixtures; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a view in elevation of my improved stirrer.

Fig. 2 an end view of the lower end thereof.

Fig. 3 a view thereof in longitudinal central section of the stirrer with the handle thereof in elevation.

Fig. 4 a view thereof in transverse section on the line 4—4 of Fig. 1.

Fig. 5 a view thereof in elevation preparatory to the application of the refractory envelop.

Fig. 6 an end view of the lower end of the brass core of the device.

Heretofore molten brass mixtures have generally been stirred by iron or steel stirrers. This practice has always been open to the objection that the surfaces of the stirrers become oxidized and scale off into the brass, whereby the same is injured since it is well known that the presence of the smallest amounts of iron in brass is capable of detection and is objectionable and renders it unfit for many uses.

The object of my invention is to avoid this objection by keeping the brass free from contamination by the stirrers employed in the casting process.

With these ends in view, my invention consists in a stirrer for molten brass or other mixtures, having certain details of construction as will be hereinafter described and pointed out in the claims.

In carrying out my invention as herein shown, I cast or otherwise apply a long cylindrical brass core 5 having a plurality of regularly spaced radial retaining-points 6, upon the lower end of a rigid handle 7 of iron or steel having a loop 8 at its upper end. As shown, the lower end of the handle is squared as at 9 at the point where it enters the core, whereby the handle is prevented from turning therein. The entire core is inclosed in an envolp 10 of highly refractory material such as asbestos, fire clay, or porcelain. The stirrer as thus constructed is used in the same manner as an ordinary iron or steel stirrer is used, only its protected core being introduced into the molten brass mixture. Now in case the refractory envelop cracks or portions of it chip off, the molten mixture may gain access to the brass core and melt a portion thereof, but no harm will then be done, since the result will merely be that a small quantity of brass will be added to the mixture which will be practically unaffected by the addition. Ordinarily, of course, the refractory envelop will be sufficient to protect the brass core, but in case of accident no harm will result to the mixture, as already explained.

I claim:—

1. A stirrer for molten brass mixtures, comprising a handle, a brass core mounted upon the lower end thereof, and an envelop of refractory material applied over the brass core.

2. A stirrer for molten brass mixtures, comprising a handle, a brass core mounted upon the lower end thereof and formed with a plurality of retaining-points, and an envelop of refractory material applied over the core and retained thereon by the said points.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRANK D. ZINNO.

Witnesses:
J. S. NEAGLE,
K. M. BROWN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."