

T. ARAMAKI.
ZINC MELTING APPARATUS.
APPLICATION FILED NOV. 17, 1915.

1,275,196.

Patented Aug. 13, 1918.
2 SHEETS—SHEET 1.

Fig. 1.

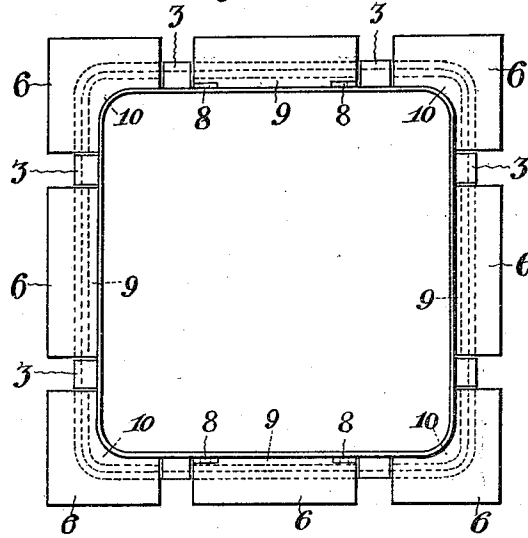
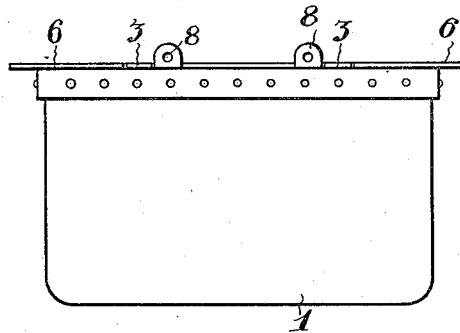


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

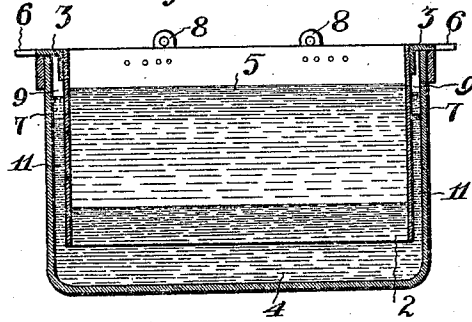
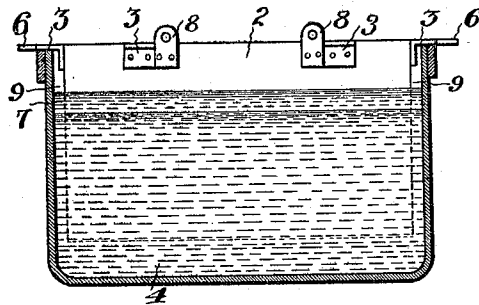


Fig. 4.



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UNITED STATES PATENT OFFICE.

TAKEKICHI ARAMAKI, OF KIKU-GUN, FUKUOKA-KEN, JAPAN.

ZINC-MELTING APPARATUS.

1,275,196.

Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed November 17, 1915. Serial No. 61,952.

To all whom it may concern:

Be it known that I, TAKEKICHI ARAMAKI, engineer, a subject of the Emperor of Japan, residing a No. 6 Itabitsu-Mura, Kiku-Gun, Fukuoka-Ken, Empire of Japan, have invented certain new and useful Improvements in Zinc-Melting Apparatus, of which the following is a specification.

This invention relates to an apparatus for melting zinc, particularly to such apparatus in which into a main tank a bottomless internal jacket is suspended leaving a space between tank and jacket.

It is the object of the present invention to provide an apparatus adapted for continuous operation allowing an exchange of the inner jacket without disturbance of the operation.

Another object of the invention is to be seen in the arrangement of show holes through which the operation may be observed at all times.

In the accompanying drawing:

Figure 1 is a plan view of an apparatus constructed in accordance with the present invention.

Fig. 2 is a side view of the same.

Fig. 3 is a vertical section, and

Fig. 4 is a side view in section after removal of the inner jacket.

In the outer tank 1 an inner, bottomless jacket 2 is suspended by resting with its flanges 3 upon the upper edge of said tank. Between both, the outer tank and the inner jacket, a free space 11 is left, the lower part 4 of which is filled with lead upon which the zinc to be melted is deposited within the limits of the jacket 2. It will be clear that the lighter zinc will float upon the heavier lead and will be molten by the heat of said lead without commingling with the same. The outer vessel is closed by a cover 6 fitting also over the space 9 formed between both vessels near the top of the same.

At its corners the tank is somewhat widened as indicated at 10 so as to provide show openings allowing the observation of the proper operation of the apparatus in

order to discover for instance a break in the jacket necessitating an exchange of the same or other irregularities.

In order to prevent the air from acting directly upon the molten lead, a hard melting substance which has a higher melting point than the zinc, as for instance ordinary lime 7 may be employed and placed over the surface of the molten lead which occupies the space surrounding the sides of the jacket 2. 8 are manipulating handles on the jacket adapted to facilitate the working of the same and its removal.

What I claim is:

1. In zinc melting apparatus, an outer tank formed with comparatively acute corners, an inner jacket provided with flange members adapted to be positioned within said tank and to be supported thereby by means of said flange members engaging the upper edges of said tank, said jacket being constructed shorter, smaller, and with more rounded corners than the tank whereby a space is provided between the bottom and sides of the tank and jacket, the differences in their corners resulting in a widened space at these points.

2. In zinc melting apparatus, an outer tank formed with comparatively acute corners, an inner jacket provided with flange members adapted to be positioned within said tank and to be supported thereby by means of said flange members engaging the upper edges of said tank, said jacket being constructed shorter, smaller, and with more rounded corners than the tank whereby a space is provided between the bottom and sides of the tank and jacket, the difference in their corners resulting in a widened space at these points, and covers adapted to close intervening spaces between the tank and jacket between the flange members.

In testimony whereof I affix my signature in presence of two witnesses.

TAKEKICHI ARAMAKI.

Witnesses:

GENJI KURIBARA,
HARUTADA YARUMARA.