April 19, 1932. E. G. SAINT-AUBIN 1,855,031

APPARATUS FOR CASTING CURVED STEREOTYPE PLATES

Filed Nov. 13, 1931

Fig. 1.

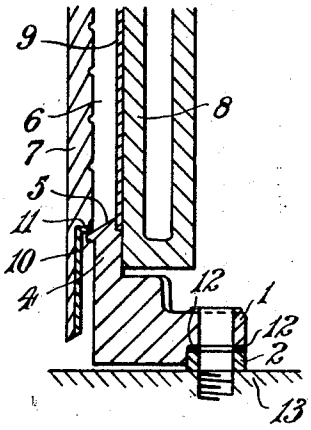
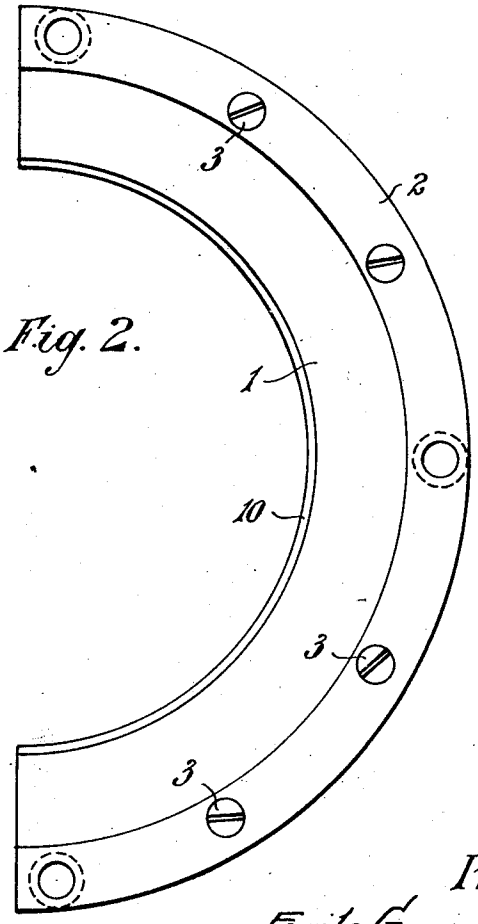


Fig. 2.



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UNITED STATES PATENT OFFICE

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APPARATUS FOR CASTING CURVED STEREOTYPE PLATES

Application filed November 13, 1931, Serial No. 574,701, and in Great Britain November 12, 1930.

This invention relates to stereotype plate casting machines in which curved or semi-cylindrical plates are cast in a mould formed by a cylindrical core rotatable about a vertical axis, and a semi-cylindrical back which is moved towards and away from the core to close and open the mould.

As is well known, in machines of this kind, the matrix for the stereotype plate is carried by the back, and when the mould is closed, this matrix is held at its lower end against the outer edge of a flange extending upwardly from a so-called ring, which is of approximately semi-circular form, secured to the base of the machine, which flange serves to close the bottom of the mould and to form the bevel on the lower edge of the stereotype plate. This flange is also provided with an inwardly extending rib which engages with the underside of a shoulder on the core and must necessarily form a metal-tight joint therewith, for which purpose it sometimes becomes necessary to adjust the height of the flange by means of packing inserted between the ring and the base of the machine.

The object of the present invention is to facilitate the use of such packing and to avoid the necessity of repacking when the ring has to be removed and replaced.

To this end, the invention contemplates a construction of the ring which will enable the packing to be secured to, and made a permanent part of, the ring.

The accompanying drawings illustrate one constructional form of the invention, Figure 1 being a vertical section, and Figure 2 an underside view of the so-called ring.

As here illustrated, the ring 1, has its underside recessed for the reception of a semi-circular shoe 2 which is preferably of the same metal as is the ring 1 so as to avoid difficulty which might arise out of differences of expansion ratios. The shoe 2 completely fills the recess and is secured therein by countersunk screws 3, the undersurface of the shoe being either flush with that of the ring 1 or, as shown, slightly below it.

The semi-cylindrical flange 4 which extends upwardly from the ring 1, has its upper edge bevelled as at 5 so as to form a corresponding bevel on the lower edge of the stereotype plate when as ordinarily, it is cast in the chamber 6. This chamber is in part constituted by the well-known core 7, back 8, matrix 9 carried on the inner side of the back, and the aforesaid flange 4.

The flange 4 is also provided with the before mentioned inwardly extending rib 10 which, to avoid leakage of the molten metal, must make metal-tight contact with the core 7, as by fitting tightly against a shoulder 11.

When, with the foregoing arrangement, packing is required to ensure the just mentioned metal-tight contact, it is introduced between the shoe 2 and the top of the ring recess; such a packing is represented by the thick line marked 12 in Figure 1. The insertion of this packing is effected when, with the ring 1 detached from the base 13, the shoe 2 is removed from the said ring, the packing afterwards being secured sandwich fashion between the parts 1 and 2 by the replacement of the screws 3.

The ring 1, with its packing 12, can thus be removed and replaced as a single entity, and the refitting and readjusting of the packing which heretofore has been necessary between the ring 1 and the base, is entirely avoided.

Having described my invention I declare that what I claim and desire to secure by Letters Patent is:—

1. In a mould for casting curved stereotype plates, the combination of a cylindrical core, a semi-cylindrical back and a ring adapted to close the lower end of the casting chamber between the core and the back, said ring being formed of two separable superimposable parts secured together, and packing sandwiched between them and

adapted to be removed along with the two parts as a single entity.

2. In a mould for casting curved stereotype plates, the combination of a cylindrical core, a semi-cylindrical back, a ring adapted to close the lower end of the casting chamber between the core and the back and having a recess in its underside, a shoe adapted to fit within said recess, packing interposed between the shoe and the top of the recess, and means for securing the shoe to the ring.

In testimony whereof I have affixed my signature hereto.

EMILE GEORGES SAINT-AUBIN.