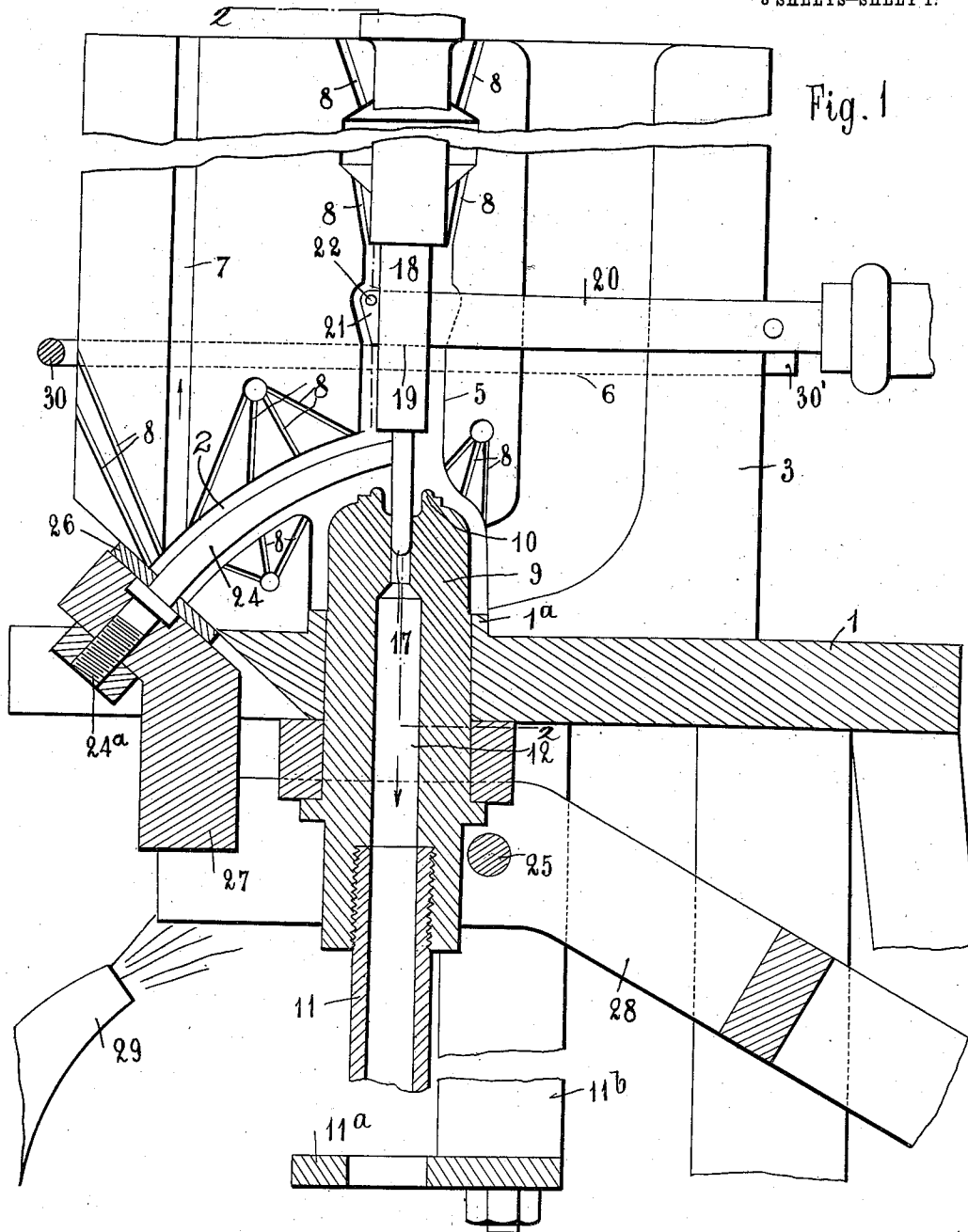


F. A. PONCET.
CASTING MACHINE FOR SIPHON HEADS.
APPLICATION FILED FEB. 23, 1911.

1,010,313.

Patented Nov. 28, 1911.

3 SHEETS—SHEET 1.



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Fig. 2.

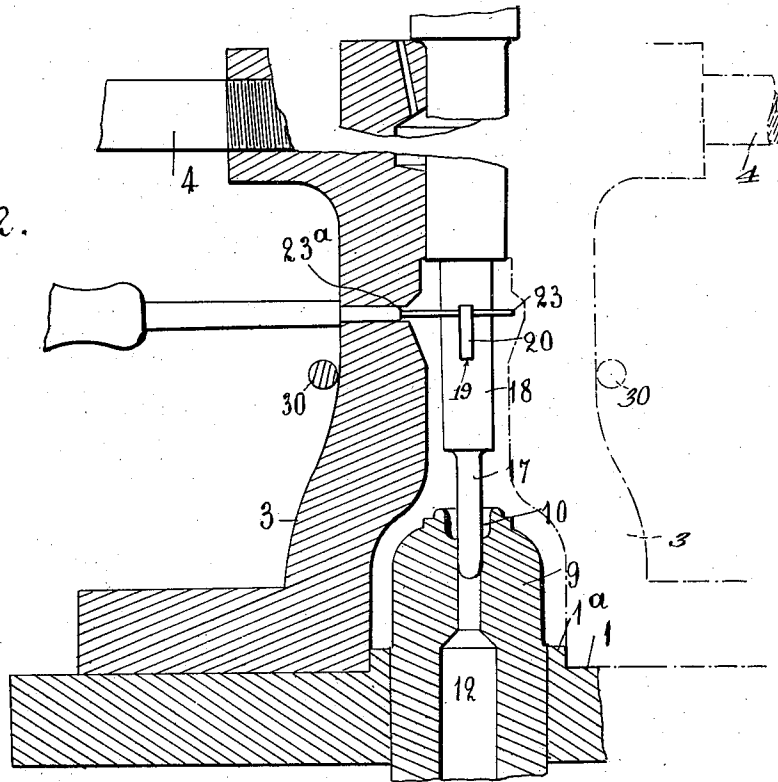
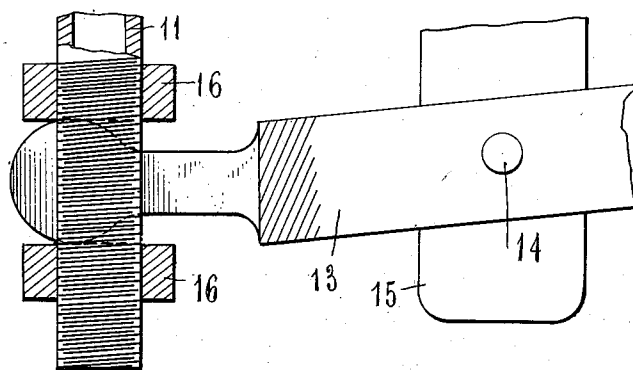


Fig. 1^a



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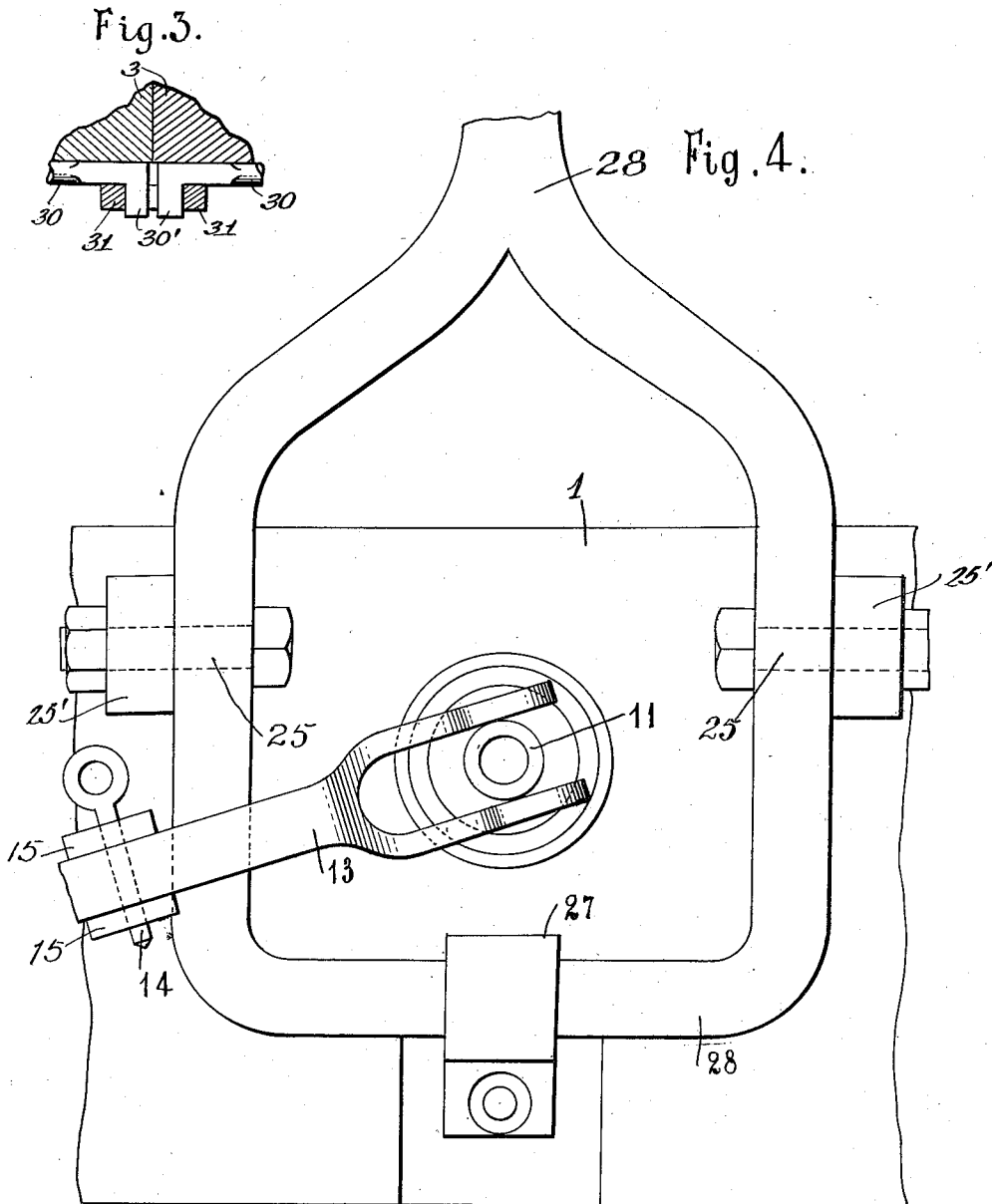
Attorney

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3 SHEETS—SHEET 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANÇOIS ALBERT PONCET, OF PARIS, FRANCE.

CASTING-MACHINE FOR SIPHON-HEADS.

1,010,313.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed February 23, 1911. Serial No. 610,302.

To all whom it may concern:

Be it known that I, FRANÇOIS ALBERT PONCET, a citizen of the French Republic, and resident of Paris, France, have invented certain new and useful Improvements in Casting - Machines for Siphon - Heads, of which the following is a specification.

My invention relates to casting machines for siphon heads in which the several parts, comprising mold parts and cores, are held in operative relation to each other in a manner that certain of the cores may be mechanically removed from a position coacting with mold parts in order to expedite the manufacture of, facilitate the removal of the finished product and automatically return the cores to a position in operative relation to the mold parts.

The objects of my invention are to make a complete casting with the least complicated mechanism, to provide a device simple in construction and operation, whereby its use reduces the cost of such castings, and to so dispose the several parts that they may be maintained at the desired temperature by a source of heat such as a blow pipe. I attain these objects by the construction and arrangement of parts shown in the accompanying drawings, in which,—

Figure 1 is a central vertical section of a device embodying my invention, as seen from the side. Fig. 1^a is a sectional detail of a portion of the base core actuating mechanism. Fig. 2 is a central vertical section taken on the line 2—2 of Fig. 1, a symmetrical portion to the right being indicated by dotted lines. Fig. 3 is a detail sectional view through a portion of the clamping means for the mold parts. Fig. 4 is a detail view showing the mechanism for imparting movement to certain of the core members.

Similar reference characters refer to similar parts throughout the several views.

The apparatus comprises a suitably supported table 1, upon which mold parts 3 are symmetrically mounted and centered by means of the flange 1^a formed on the table and serving as the bottom margin of the mold. These pattern plates 3 are movable and are operated by means of handles 4.

The inner hollows of the mold parts are formed complementary to shape the outer or exterior contour of the siphon head and the egress spout, and is in communication with a pouring gate 6 and the principal air pipe 7 through which the air escapes when the metal is being cast into the mold. A certain number of smaller air channels 8 are also provided.

The core is composed of five parts. A central base core 9, serving to produce the inner hollow of the siphon head designed to embrace the bottle neck, has an end portion 10 corresponding to the shape of a valve seat. This core is provided with a concentric opening 12, extending from one end to the other, communicating with a pipe 11, open to the air.

The base core, through the pipe 11, is supported by nuts 16 and is movable longitudinally by the forked lever 13, the pivot means 14 of which is carried by two supports 15 fixed to the underside of the table 1. The forked end of the lever 13 embraces a portion of the pipe 11 and is confined between adjustable nuts 16, in such a manner that the base core is normally retained in a position in operative relation to the mold parts by the weight of the lever arm. The pipe 11 guided by a plate 11^a which is secured to support 11^b may be separated therefrom whereby the taking to pieces of the apparatus is greatly facilitated.

In order to form the central opening of the siphon head and lateral openings, I provide a core 18, having a projection 17 of a size to enter the upper portion of the opening 12 in the core 9, and which is arranged concentrically therewith. The core 18 is provided with an opening 19 through which may be inserted a lateral core member 20 which serves to produce a lateral opening in the siphon head for the operating lever thereof. The end 21, of the core member 20 is provided with an aperture 22 adapted to receive a peg core 23 serving to form an opening for the pivot pin of the siphon operating lever. The peg core 23 is provided with a shoulder which closes the opening 23^a in the mold part 3 through which it is inserted.

A curved core 24, the axis of which is concentric with a pivot point 25, enters the complementary formed opening 2 of the mold parts 3 and serves to produce the inner bore of the siphon spout. The core 24 is guided through a confining plate 26 and is formed tapering toward the vertical axis of the siphon head. The core is secured, at its end 24^a, to an arm 27 of an elbow lever 28 which is fork-shaped and pivotally mounted on the bearings 25 carried by the supports 25'. This lever, owing to its weight, returns the core 24 to an operative position with respect to the mold parts.

A suitable blow pipe 29 is provided for heating the mold and for maintaining the same at a temperature near the point of fusion of the material of which the siphon head is to be formed. This blow pipe heats the entire plate and more particularly the cores 9 and 24, the core 18 being heated by its close proximity with the melting furnace. The mold-parts rest upon the table by their own weight and are held in operative relation with each other by means of a clamp 30 having portions 30', formed at ends, at right angles to the main portion which is clamped together by a link 31 or the like.

From the above description it is seen that the cast siphon head is inclosed by the mold parts, which being complementally formed allows the completed product to be removed without injury to the same.

The operation of the device is as follows:—After the table 1 has been made stationary at a suitable distance from the melting furnace, the table 1 and the cores 9 and 24 are heated by means of the blow pipe, while the mold parts are heated in a furnace. When the parts are perfectly clean and heated to the required temperature the mold parts are mounted on the table and the cores placed in their proper positions therewith. The molding metal enters the molding machine through the pouring gate 6. When the required amount of metal has entered the device the cores 23 and 20 are removed from the core 18, which permits the removal of the latter. Through the levers 13 and 28 the cores 9 and 24 are removed. This allows the mold parts to be separated, the formed siphon head remaining in one half thereof and removed therefrom by the operator to the finishing table.

The manipulation of the device is very simple and requires but a short time to complete the cast siphon head and which enables the operator to again assemble the device with very little loss of heat.

I claim:—

1. A casting machine for siphon heads, comprising in combination, mold parts, complementally formed to shape the exterior of

the siphon head, including a spout, and provided with a pouring gate and air outlets in communication therewith, an axial core carried by said mold parts for the axial channel of the siphon head, and provided with a transversely extending aperture, a second core carried by said mold parts and extending transversely through the space intervening the mold parts and axial core, through the said aperture in the latter and projecting therefrom to form an opening and bearing socket in the walls of the siphon head for the operating lever, and a movable core for said spout to form a channel extending into said axial channel.

2. A casting machine for siphon heads, comprising in combination, mold parts complementally formed to shape the exterior of the siphon head, including a spout, and provided with a pouring gate and air outlets in communication therewith, an axial core carried by said mold parts for the axial channel of the siphon head and provided with a transversely extending aperture, a second core, provided with a transversely extending aperture adjacent the end thereof, carried by said mold parts and extending transversely through the space intervening the mold parts and axial core, through the aperture in the latter and with the apertured end projecting therefrom to form an opening and bearing socket in the walls of the siphon head for the operating lever thereof, a third core carried by said mold parts extending through the space intervening said mold parts and axial core, laterally of the latter, and passing through the said aperture in said second mentioned core to form the pivot pin aperture in the siphon head for the lever thereof, and a movable core for said spout to form a channel entering into the said axial channel.

3. A casting machine for siphon heads, comprising in combination, mold parts complementing each other to form the exterior of the siphon head and spout and provided with a pouring gate and air outlets in communication therewith, a reciprocable base core, means positioning said core in operative relation to said mold parts to form the base of the core, means for reciprocating said core and normally retaining the same in operative relation, to said mold parts, an oscillatable core coöperating with said mold parts to form the channel of the siphon head spout, a transversely apertured axial core carried by said mold parts contacting with said oscillatable core and provided with a portion to engage said base core to position the said axial core in operative relation thereto, the axial core forming a channel within the siphon head in communication with the channel of the spout and base por-

tion, and a cross core carried by said mold parts and extending transversely through the space intervening the mold parts and axial core, through the aperture in the latter
5 and projecting therefrom to form an opening and bearing socket in the walls of the siphon for the operating lever thereof.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANÇIS ALBERT PONCET.

Witnesses:

HENRI BOETTCHER,
DEAN B. MASON.
