

J. GOW.
 APPARATUS FOR MAKING CORES.
 APPLICATION FILED SEPT. 28, 1910.

981,257.

Patented Jan. 10, 1911.

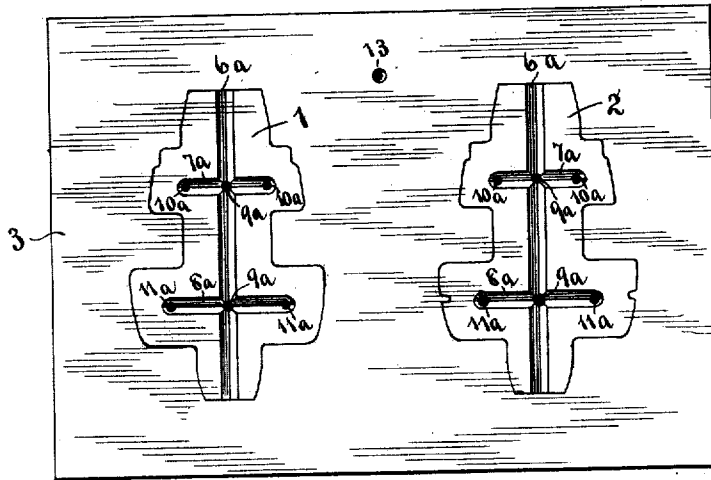


Fig. 1.

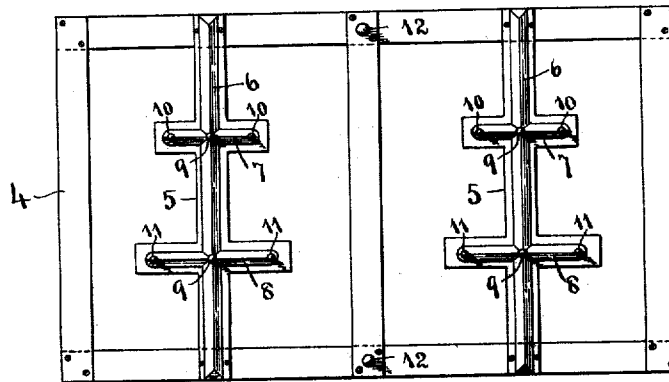


Fig. 2.

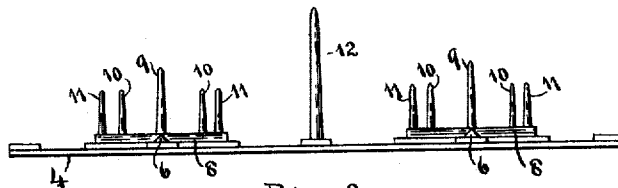


Fig. 3.

WITNESSES:

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APPARATUS FOR MAKING CORES.

981,257.

Specification of Letters Patent.

Patented Jan. 10, 1911.

Original application filed May 20, 1910, Serial No. 562,434. Divided and this application filed September 28, 1910. Serial No. 584,223.

To all whom it may concern:

Be it known that I, JOHN GOW, a citizen of the United States, residing at Schenectady, in the county of Schenectady and State of New York, have invented certain new and useful Improvements in Apparatus for Making Cores, of which the following is a specification.

This invention relates to improvements in the methods and means for forming cores for founding purposes; and my object is to provide an apparatus whereby the gas vents will be quickly and accurately formed in the two parts of a divided core, to the end that, when the parts are placed together, the vents formed therein will register one with the other, and, furthermore, will be positioned in a fixed relation to the peripheral contour of the dividing surface so as to be adapted for application to a paste applying apparatus as described in my application, Serial No. 562,434 filed May 20th, 1910, of which this is a divisional application.

I attain my object by constructing and applying the apparatus in the manner illustrated in the accompanying drawings, in which—

Figure 1 presents a plan view of a core box with a pair of core parts rammed up in the core molds and having formed therein the gas vents by means of my vent forming device, and Figs. 2 and 3, a plan view and side elevation respectively of the vent forming device.

Like numerals designate like parts in the several views.

To accurately form these vents on the two parts of a core so that, when said parts are fastened together, the vents 6^a, 7^a, and 8^a (as shown in Fig. 1) will accurately register, I construct the core box substantially in the manner illustrated and apply thereto, after the core molds have been filled, a vent forming device such as shown in Figs. 2 and 3. This device consists of a skeleton frame 4, of wood or metal, provided with cross bars 5, positioned on opposite sides of the frame. Upon these cross bars strips of V- or U-shaped cross section are fastened to form the longitudinal and branch vents in the two parts of the cores;

as shown at 6, 7, and 8 on the two cross bars. From these vent forming strips pins 9, 10, and 11 project, the length of said pins corresponding to the depth and contour of the parts of the core into which they will enter. At the center of the frame, and at the opposite sides thereof, pins 12 are provided, said pins being longer than any of the vent forming pins on the cross bars. The core box has the two parts of the core spaced apart to correspond in distance to the distance between the cross bars 5. After the molds have filled with the core composition, either in a machine or by hand, the print forming frame will be applied by inserting the pins 12 in sockets 13 provided therefor in the core box. The frame will then be pressed down, guided into place by the pins 12, until the vent strips and pins have entered into the cores, thus forming simultaneously the vents in both the core parts in position to accurately register when the core parts are fastened together. After the vents have been formed the core parts will be removed from the core box and baked in the usual manner. By thus accurately guiding the vent frame into place over the core molds, the vent channels will be positioned in the same place relative to the peripheral contour of the dividing surfaces of the core parts, so as to accurately register when the two parts are placed together and so that, when a core part is applied to the pasting apparatus aforesaid, said vent channels will lie clear and free from the paste applying passage-ways.

While I have described the application of my invention to a core box containing molds for the two parts of a core, it will be understood that the vent frame and core box may be so constructed as to form and vent but one core part at a time, or to form and vent more than a single pair of core parts by simple reduction or multiplication of the requisite parts of the core box and frame.

Where castings are being made in large quantities, this vent forming apparatus will be found to greatly simplify and perfect the making of the cores to say nothing of the time that will obviously be saved in forming the vent channels and holes.

The expense of making the vent frames

for different core forms will be slight in comparison with the reduction in time and labor cost.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination, with a core box having one or more molds for forming the parts of a core, of a frame provided with vent forming projections arranged in accordance with the number and shape of the molds, and means on the box and frame for guiding the frame into position over the mold or molds, whereby vents will be impressed in the joint surfaces of the core parts after the mold or molds are filled in fixed relation to the peripheral contour of said surfaces and in position to register with one another when the parts are fastened together.

2. The combination, with a core box having one or more molds for forming the parts of a core, of a frame provided with vent forming interconnected strips having vent forming pins projecting vertically therefrom arranged in accordance with the number and shape of the molds, the frame being further provided with vertical guide pins of greater length than the vent pins, and the core box being provided with guide channels to receive said guide pins.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOHN GOW.

Witnesses:

SAMUEL H. PERRAULT,
J. H. MEEHAN.