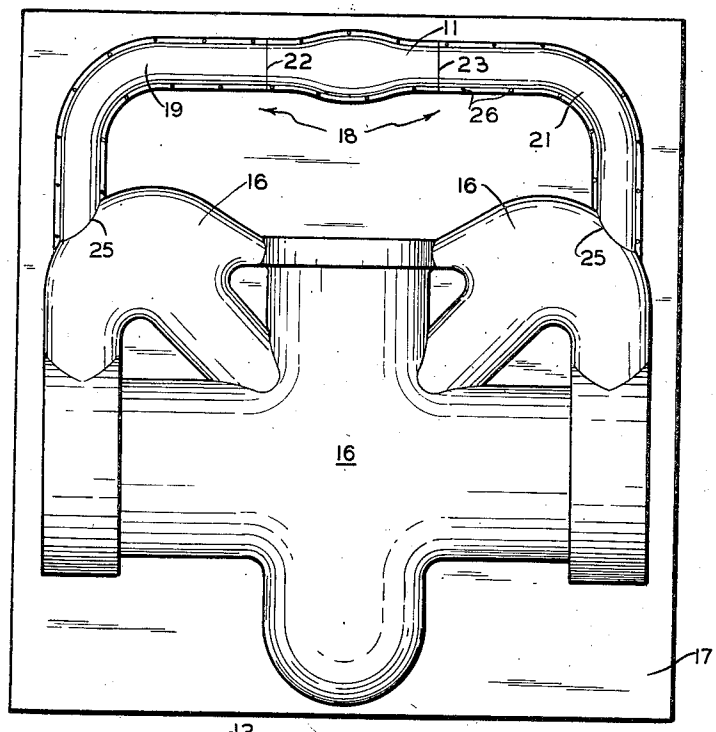
Nov. 14, 1950 D. ARNETTE 2,529,647

PATTERN FOR FOUNDRY CASTING MOLDS

Filed Sept. 17, 1948

FIG. 1



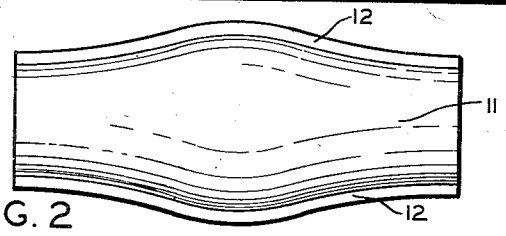


FIG. 2

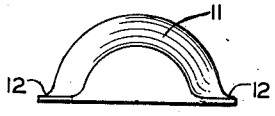


FIG. 3

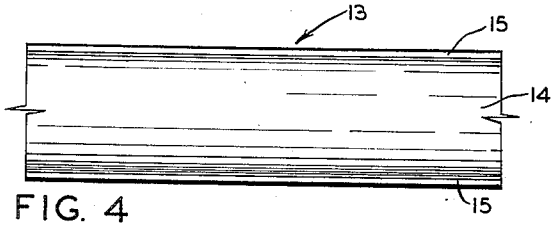


FIG. 4



FIG. 5

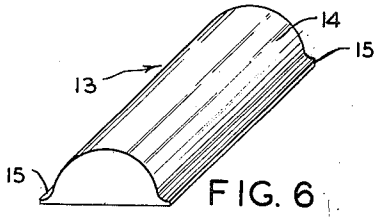


FIG. 6

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UNITED STATES PATENT OFFICE

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PATTERN FOR FOUNDRY CASTING MOLDS

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Application September 17, 1948, Serial No. 49,740

3 Claims. (Cl. 22—164)

1

This invention relates to the art of pattern making, generally, and concerns itself more particularly with improved means for forming that part of the pattern which provides for the gate runners and gate runner hubs of the sand molds in which foundry castings are poured.

It is an object of the invention to provide a pattern, the gate runner strips of which are formed from rubber secured to the pattern board to any desired shape.

It is a further object of the invention to provide a pattern at less cost than has heretofore been possible.

Another object of the invention is to provide a gate runner strip for a pattern which can be bent into any desired shape and which may be used repeatedly.

A still further object of the invention is to provide a gate runner strip, universally adaptable to all patterns, which may be stocked in a selected number of different sizes and thereby supply the entire needs of a pattern shop.

Other objects and advantages will become apparent as the description proceeds and a more comprehensive understanding of the invention will be afforded from the following detailed specification when considered in conjunction with the accompanying drawings, in which

Fig. 1 is a plan view of a half-pattern mounted on a pattern board embodying the instant invention;

Figs. 2 and 3 are top and end views, respectively, of a gate hub forming a part of the invention; and

Figs. 4, 5 and 6 are top, cross sectional and isometric views, respectively, of a semi-circular gate runner strip also embodying the invention.

Under present day practices, the gates for a casting mold are made directly in the sand by the molder or are provided for by making runner strips of wood and nailing them onto the pattern board. Both methods are costly since they require either the services of a molder or a pattern maker. As contemplated by the instant invention, the gate runner strips and the gate hubs of a pattern are made from rubber, extruded or molded. These portions of the pattern are nailed, or otherwise secured to the pattern board. Being flexible, they can be applied to the board in any desired shape, they may be used

2

repeatedly, and are of sufficient hardness to withstand the tamping of the sand in the mold without distortion.

In a preferred embodiment of the invention, a gate runner hub 11, is made from molded rubber as shown in Figs. 2 and 3. The body of the hub contours into side flanges 12 through which nails may be driven to secure the same to a pattern board. The flanges are also used to provide a desired curvature or radius to the mold.

A gate runner strip 13 of extruded rubber is also contemplated as shown in Figs. 4 to 6. Here, the strip is provided with a convex arcuate or semi-circular body 14 which also has side flanges 15 provided for the same purpose as the flanges of the hub. This strip may be made of any suitable length in various diameters or sizes, as desired.

In an application of the invention as illustrated in Fig. 1, a wooden half-pattern 16 is secured to a pattern board 17, as shown. Connecting with the half-pattern 16 is a gate runner pattern 18, which consists of two pieces 19 and 21 of the gate runner strip 13 and one of the hubs 11. The strip pieces 19 and 21 have one of their ends cut square each to join at 22 and 23, respectively, with the ends of the hub 11. The other ends of these strips are easily cut to merge with the contours of the half-pattern 16 along the lines 24 and 25. Both strips 19 and 21, and the hub 11, are secured to the pattern board 17 by nails 26, as shown. In the alternate, one row of nails driven centrally through the body of the strips and hubs, may be employed to secure these elements to the board.

The gating herein described will ordinarily be required only on one half of the pattern but if desired both halves of a pattern may be gated.

Various changes may be made in the details of construction, within the scope of the appended claims, without departing from the spirit of this invention. Parts of the invention may be used without the whole, and improvements may be added while retaining some or all of the advantages of the invention.

I claim:

1. In a pattern for a casting mold, a pattern board, a casting pattern secured to said board, and a rubber gate strip pattern of uniform

convex arcuate cross section connecting with said casting pattern and secured to said pattern board.

2. In a pattern for a casting mold, a pattern board, a casting pattern, a rubber gate strip of uniform convex arcuate cross section secured to said board connecting with said pattern, and a rubber gate hub pattern connecting with said rubber gate strip.

3. In a pattern for a casting mold, a pattern board and a gate pattern secured thereto, said gate pattern being made of rubber of uniform convex arcuate cross section and having sufficient flexibility to be bent into various shapes of sufficient hardness to withstand, without deformation, sand tamping blows.

DALE ARNETTE.

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