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2,597,208

Pouring Gate

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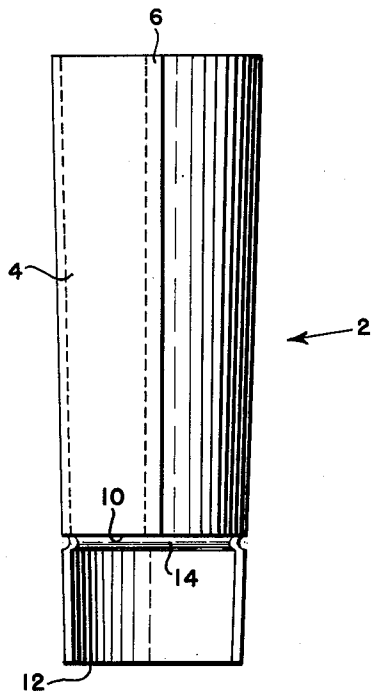


FIG. 1.

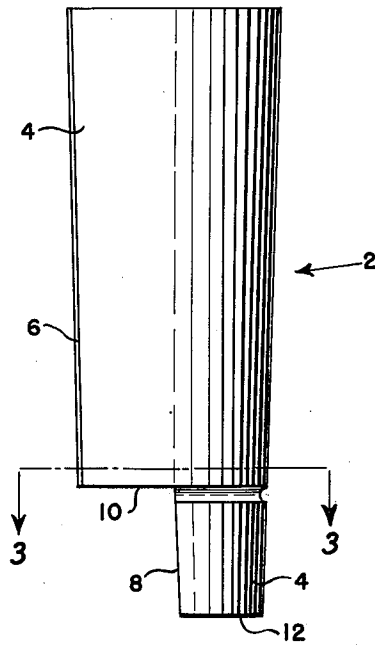


FIG. 2.

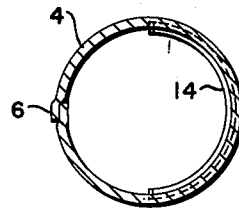


FIG. 3.

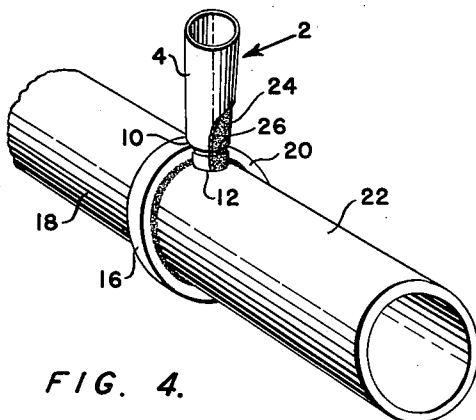


FIG. 4.

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POURING GATE

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1 Claim. (Cl. 25—127)

1

This invention relates to a pouring gate and more particularly relates to a pouring gate useful for pouring cement in joints between lengths of pipe.

After pouring cement into a joint between two lengths of pipe, as, for example, in the cavity formed by the bell and spigot of adjoining lengths of cast iron pipe, the conventional conically shaped pouring gate is left containing a substantial amount of cement in order that a maximum head may be developed to assure a dense, completely filled joint. Thus, conventionally, the gate is not removed until the cement in the joint and in the gate itself has hardened.

In removing the gate, the cement in the gate must be broken off from the cement in the joint. In accomplishing this break, it frequently occurs that the cement material breaks in the joint formed rather than in the gate itself. This, of course, results in a faulty joint which is very difficult to correct.

It is, therefore, the principal object of this invention to provide a pouring gate which together with its contained cement can be readily removed from a poured joint of solidification without injury to the joint.

It is a further object of this invention to provide a pouring gate which together with its contained cement can readily be removed from a poured joint of solidification without the use of any additional tools.

It is an additional object of this invention to provide a pouring gate which will cause a shear line to be formed in the cement contained in the pouring gate as it solidifies in order that the cement within the pouring gate can be readily broken away from the joint.

These and other objects of this invention will become apparent on reading the description of the drawings in which:

Figure 1 is a front elevation of a pouring gate in accordance with this invention.

Figure 2 is a side elevation of the pouring gate of Figure 1.

Figure 3 is a section taken on the plane indicated by the line 3—3 in Figure 2.

Figure 4 is a perspective view of the pouring gate of Figure 1 shown just before its removal and partly broken away to show a portion of the contained solidified cement.

As shown in Figures 1 through 3, a pouring gate 2 in accordance with this invention has a body 4 which is substantially the shape of a truncated cone and has a hollow interior. The body 4 can be formed of any suitable material such as, for example, 20-gauge galvanized sheet steel having its ends overlapping as indicated at 6 at the front of the pouring gate.

The body 4 has a cut-out section 8 which extends upwardly from the bottom of the body and around a substantial portion of the circumference of the body. As viewed from the front of

2

the pouring gate as in Figure 1, the boundaries of the cut-out portion are substantially trapezoidal in shape. The upper boundary 10 of opening 8 is adapted to rest on the bell of a pipe while the lower portion of body 4 extends downwardly a sufficient distance so that the bottom 12 can rest on the pipe to which the bell is to be joined. Immediately below the boundary 10 and opposite opening 8, an inwardly extending bead 14 is formed in the body portion 4.

As shown in Figure 4, the boundary 10 above opening 8 is adapted to rest on a bell 16 of a length of pipe 18. The lower portion of body 4 abuts against the face 20 of bell 16 and has its bottom 12 resting on a length of pipe 22.

As shown by the broken away portion of Figure 4, the pouring gate contains solidified cement 24. Bead 14 has formed a groove 26 in the cement 24 contained within the pouring gate. This groove 26 forms a weakened portion or shear line in the cement. A blow, such as, for example, a kick exerted on the rear of the pouring gate will result in the cement shearing substantially on the plane of groove 26, thus separating the cement contained in the pouring gate from the cement in the joint without in any way damaging the latter.

It will be apparent that the above described specific embodiments can be considerably modified within the scope of this invention. Applicant, therefore, does not desire to be limited except as set forth in the claim.

What is claimed is:

A pouring gate for cementing pipe joints comprising an upstanding tubular body having a gradually decreasing cross-sectional area from its top to its bottom, said body having a cut-out portion extending upwardly for a substantial distance from the bottom and about a substantial portion of its periphery, the portion of the body immediately above said cut-out portion being adapted to rest on the bell of a pipe and the portion of said body opposite said cut-out portion being adapted to abut against the face of the bell and rest on a pipe being joined to the bell and a substantially horizontal bead extending inwardly from the interior surface of the body at a point below the upper boundary of said cut-out portion, said bead extending about approximately one-half of the periphery of the body.

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