

[72] Inventors **Harold E. Handley;**
Robert D. Handley, Fort Lauderdale, Fla.;
Frank J. Perry, Jackson, Mich.
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[73] Assignee **Handley Industries, Inc.**
Jackson, Mich.
a corporation of Michigan

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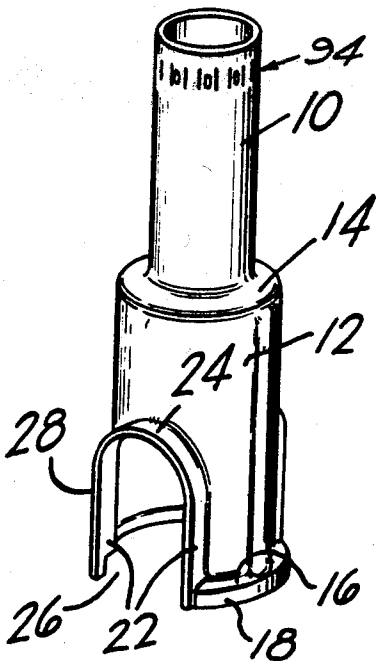
Primary Examiner—Henry T. Klinksiek
Attorney—Beaman & Beaman

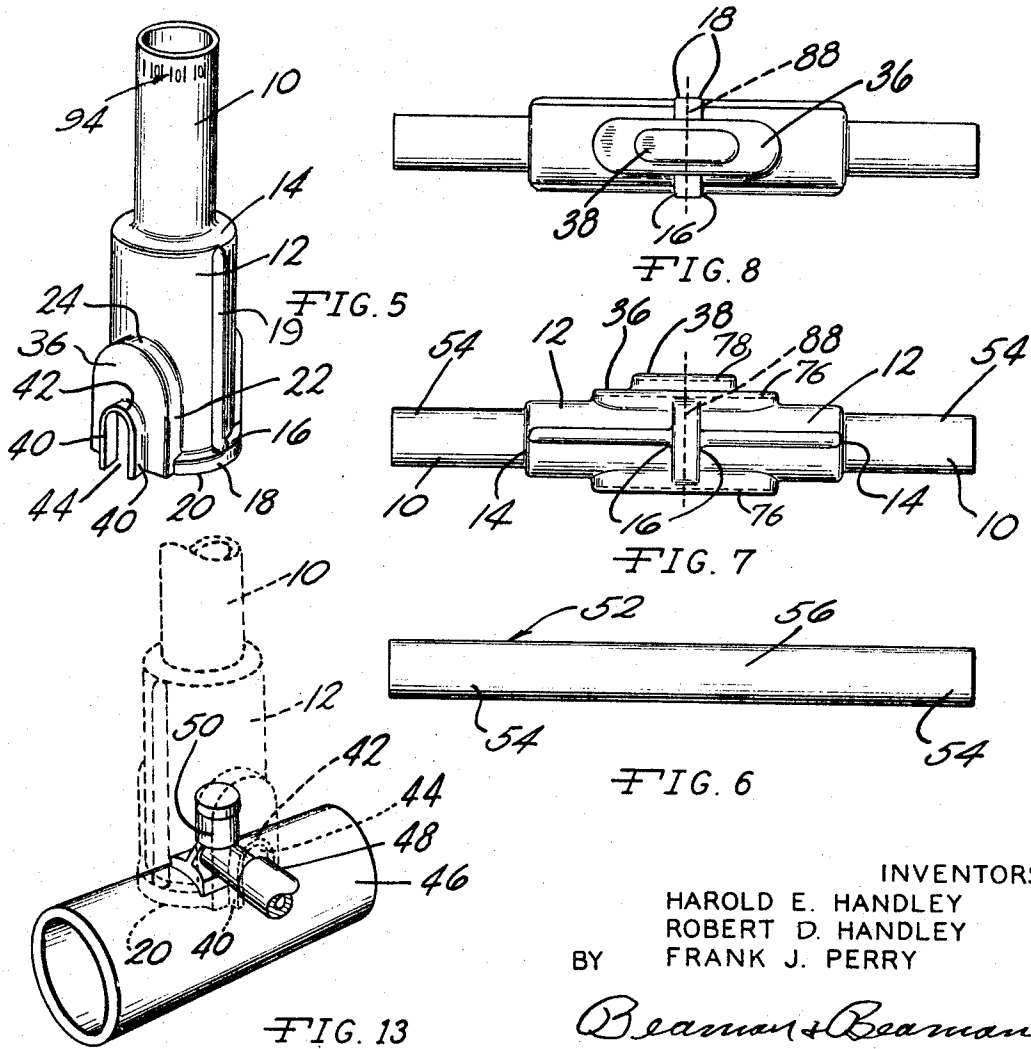
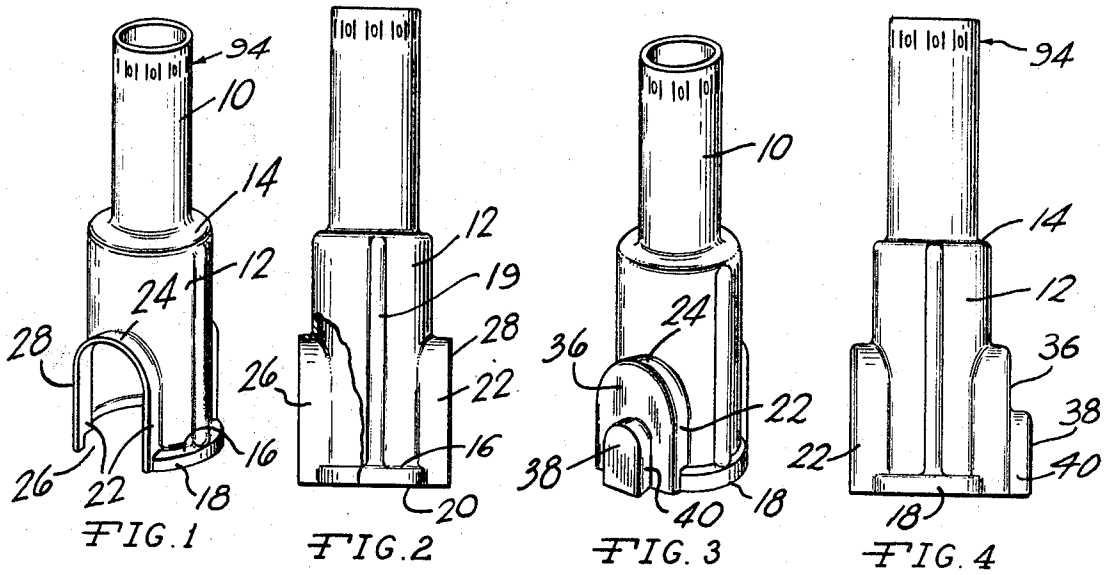
[54] **CURB BOX MEMBER AND METHOD OF MAKING THE SAME**
8 Claims, 25 Drawing Figs.

[52] U.S. Cl..... 137/364
[51] Int. Cl..... F16I 5/00
[50] Field of Search..... 137/363-
—371; 264/92, 94, 154, 155, 156; 29/157, 411, 415, 421

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ABSTRACT: A curb box, and method for making the same, formed of a moldable synthetic material wherein the curb box is formed by expansion within a mold, and includes radially extending arched flange portions which may be severed to produce openings forming an access for conduits into the interior of the box. Various sizes of arched flange portions are defined on the box to form openings to accommodate different sizes of conduits, and permit variations in usage of the box.





INVENTORS
HAROLD E. HANDLEY
ROBERT D. HANDLEY
BY FRANK J. PERRY

Beaman & Beaman
ATTORNEYS

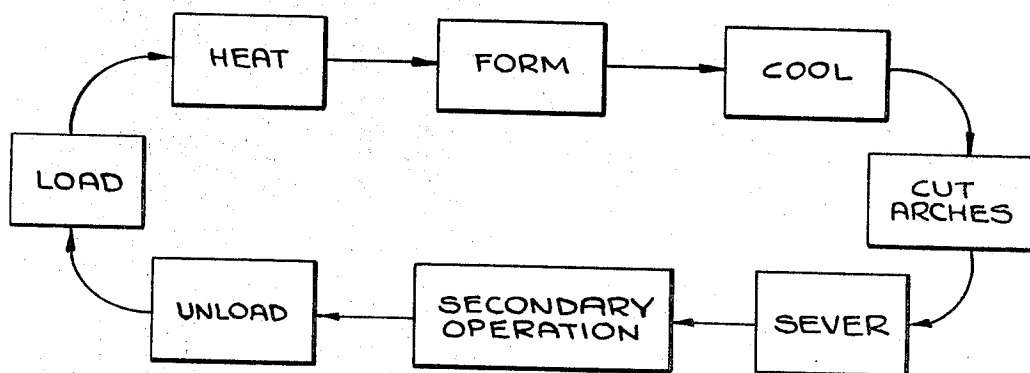


FIG. 9

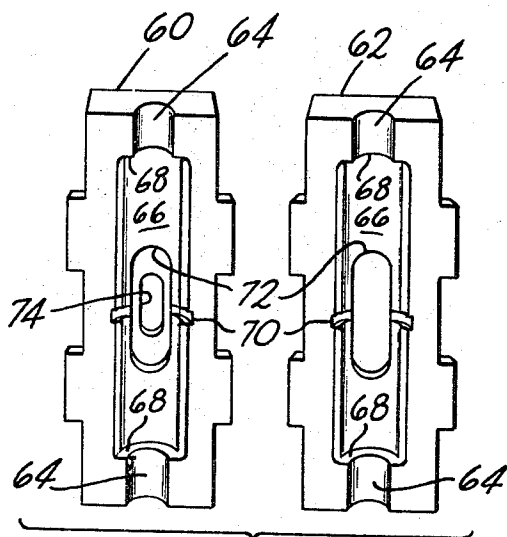


FIG. 10

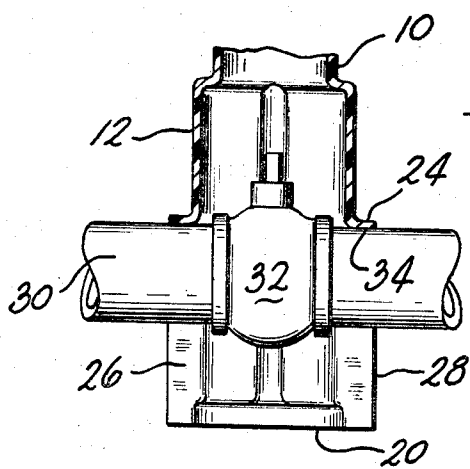


FIG. 12

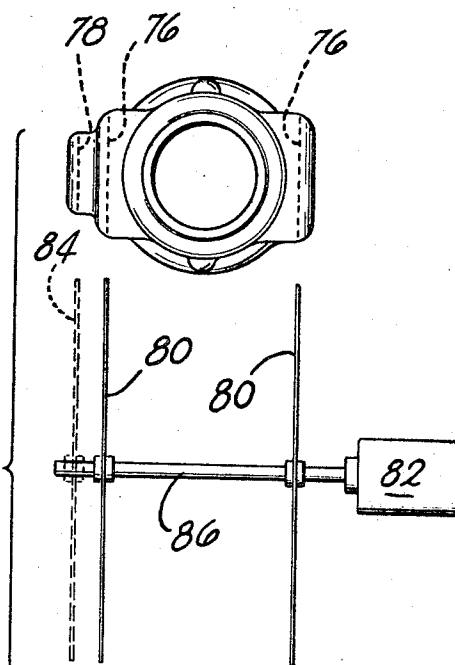


FIG. 11

INVENTORS
 HAROLD E. HANDLEY
 ROBERT D. HANDLEY
 FRANK J. PERRY
 BY
Beaman Beaman
 ATTORNEYS

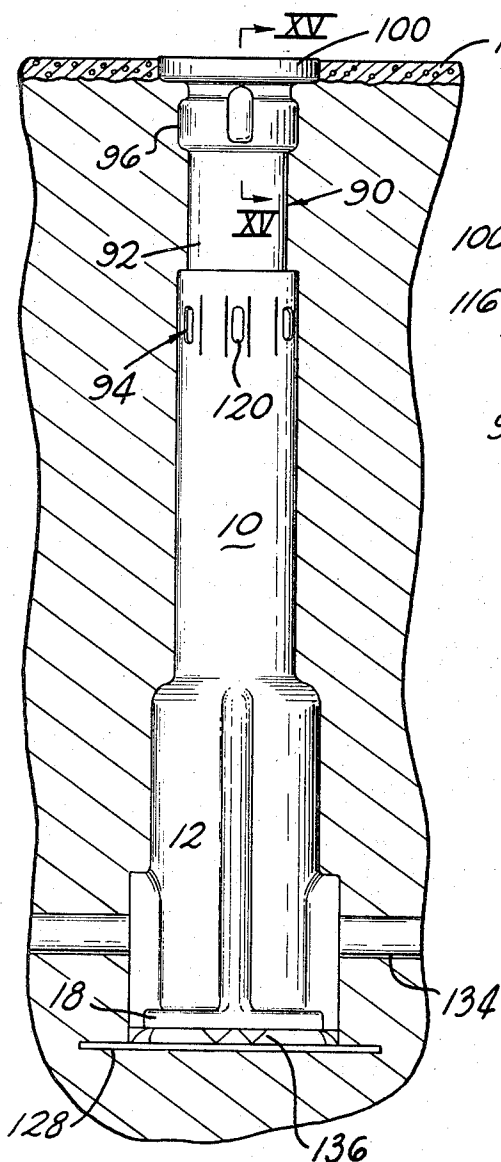


FIG. 14

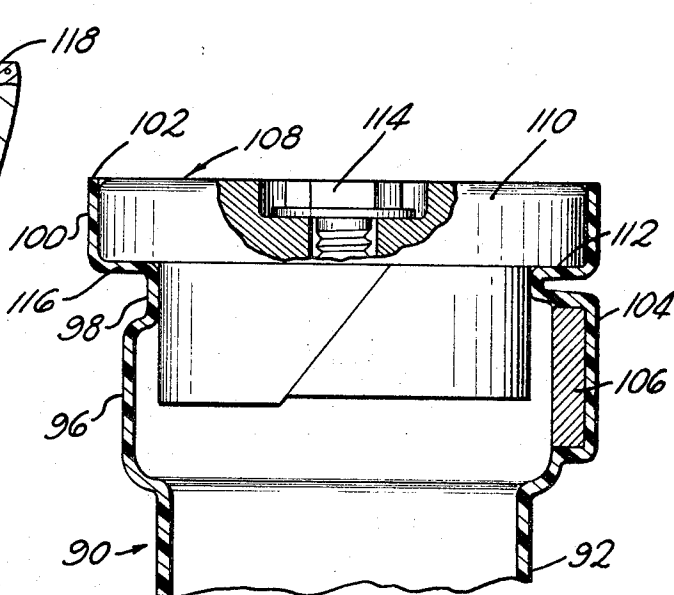


FIG. 15

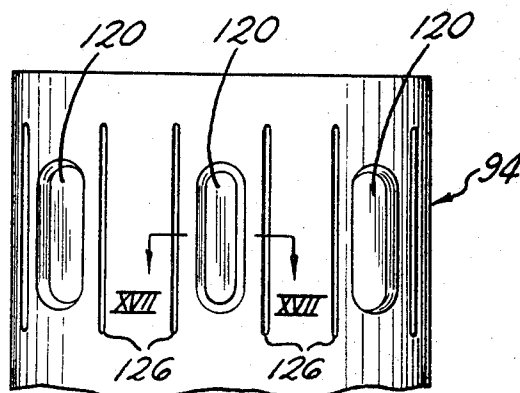


FIG. 16

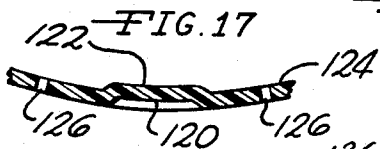


FIG. 17

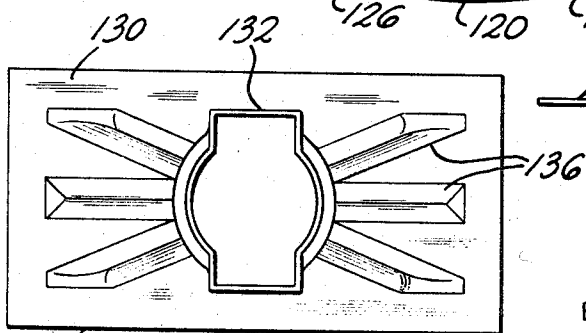


FIG. 18

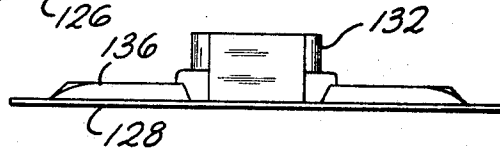


FIG. 19

INVENTORS
HAROLD E. HANDLEY
ROBERT D. HANDLEY
BY FRANK J. PERRY

Beaman & Beaman
ATTORNEYS

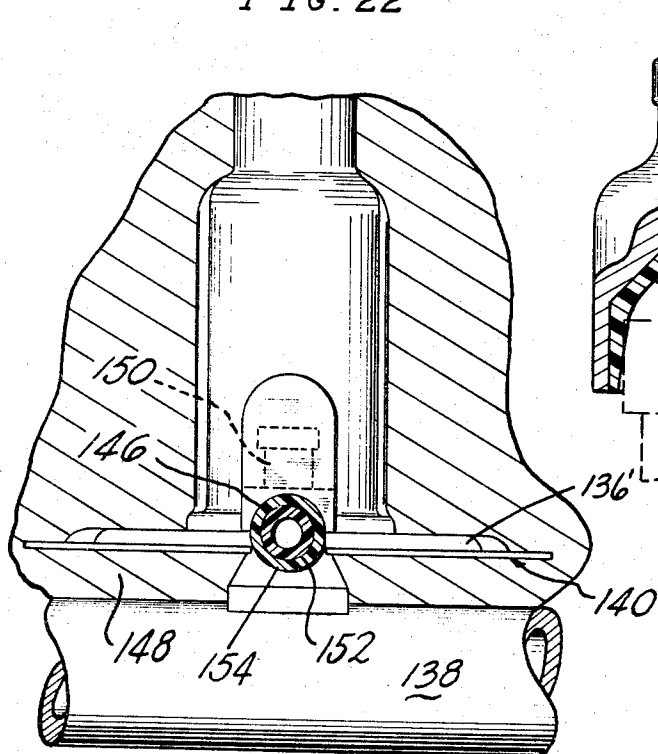
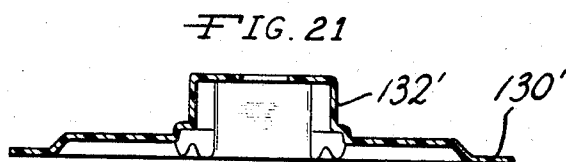
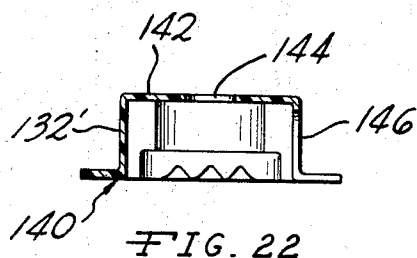
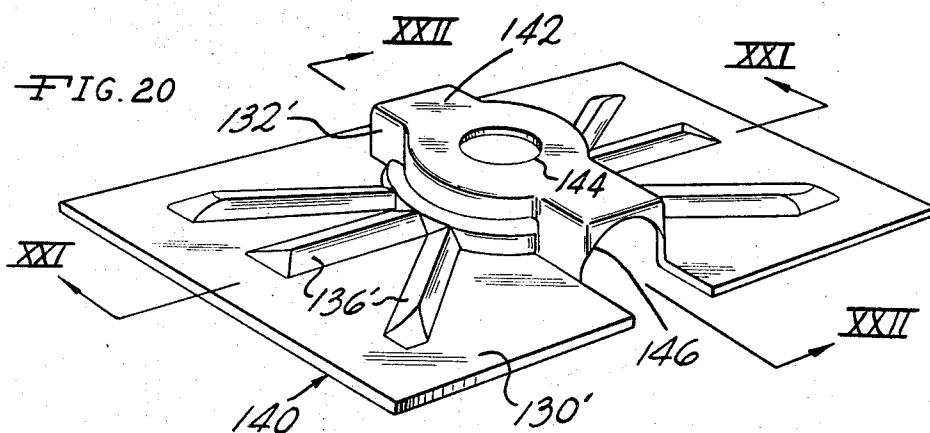


FIG. 23

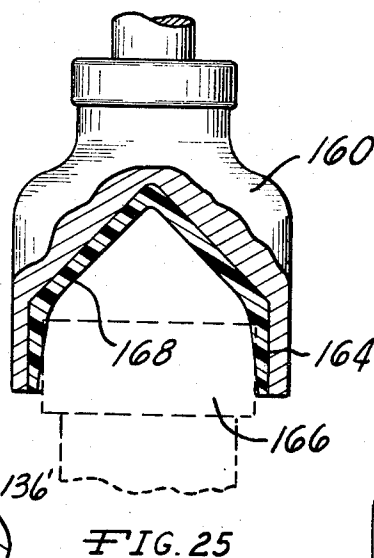


FIG. 25

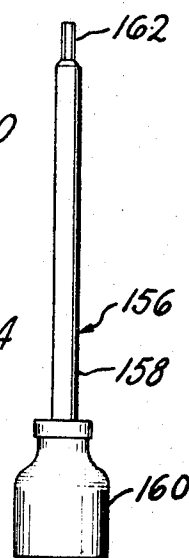


FIG. 24

INVENTORS
HAROLD E. HANDLEY
ROBERT D. HANDLEY
FRANK J. PERRY
BY

Beaman & Beaman
ATTORNEYS

CURB BOX MEMBER AND METHOD OF MAKING THE SAME

BACKGROUND OF THE INVENTION

The invention pertains to the art of forming a tubular curb box of a thermoplastic synthetic material by radially expanding a tubular blank to define radially extending projections or protuberances, and forming openings in the protuberances by removing portions of the molded material. Additionally, the invention pertains to curb box apparatus incorporating radial arched flanges for accommodating conduits associated with the box.

Curb boxes are employed to provide access to the valve, and other control components, of conduits and pipelines buried in the ground. Such boxes must be relatively inexpensive, capable of withstanding compressive forces imposed thereupon by the surrounding terrain, must readily accommodate the valve, or other component housed therein, resist withdrawal and "heaving" due to frost conditions or vandalism, and be able to resist forces imposed thereon by heavy objects pressing upon the box in an axial direction, such as would occur if a motor vehicle passed over a box buried in soft or wet earth.

The manufacture of curb boxes has been previously limited to cast iron and metal constructions. However, in more recent years the assignee has been instrumental in developing a synthetic plastic curb box which is becoming widely used in the public utility field. This type of box is shown in the assignee's U.S. Pat. No. 2,931,383.

In the construction of a curb box it is important that should axial forces be applied in a downward direction upon the box that such axial forces not be transmitted to the conduit adjacent the lower end of the box. Such axial forces could cause the underground conduit to fracture which would result in an extremely dangerous condition if natural gas, or other inflammable material, were within the conduit. In order to protect the buried conduit from such an occurrence it is common practice to form the curb box in upper and lower telescopingly engaging portions whereby axial forces cause the curb box to telescope and "shorten" in length, rather than imposing such forces upon the buried conduit. In order to further protect the buried conduit it is desirable to use a relatively large engagement area between the curb box and the associated conduit, and previous plastic curb boxes were deficient in this regard. Also, previous plastic curb boxes did not provide a positive resistance against torque forces which are imposed upon the curb box during the installation and removal of the curb box cap.

SUMMARY OF THE INVENTION

It is an object of the invention to provide an improved method for forming a curb box of a thermoplastic synthetic material wherein a tubular plastic blank may be expanded to form a configuration which, when severed, results in producing the lower section of two curb boxes.

Additionally, it is an object of the invention to provide an improved curb box construction utilizing arched flanges which permit the box to be placed over the buried conduit, and provides a significant area of contact between the curb box and the conduit as to lessen the danger of the curb box fracturing the conduit upon axial forces being imposed upon the box.

The curb box in accord with the invention also includes a lower flange which engages the earth below the conduit passing therethrough resisting vertical displacement, and the flanges forming the openings into the box aid in preventing rotational displacement of the box relative to the surrounding earth.

Curb boxes are often used in more than one manner with buried conduit, and it is a feature of the invention that the disclosed curb box is versatile and can be employed to provide access to buried valves and the like associated with service lines directly at the supply conduit, and may also be used with synthetic plastic buried conduit systems which are now being considered by public utilities.

In the practice of the invention a thermoplastic tube material is heated at a predetermined region, formed in a mold, and cooled. Thereafter, the radially formed flanged arches resulting from the forming procedure are cut to define openings in the curb box blank, and as the curb box is formed to define tube portions, each having a mirror image of the other, the formed construction is severed to form identical portions, and the necessary secondary operations performed on each portion. In that the formation of the openings in the curb box is quickly accomplished by a severing of the formed configuration, and as the entire operation can be automatically performed, substantial reductions in costs are experienced as compared with previous manufacturing methods.

The invention also includes the provision of base plate members which can be selectively used with the curb box to prevent vertical forces imposed on the curb box from being transmitted to the conduit, and this feature is of particular significance when the curb box is employed with synthetic plastic conduit systems.

Further features of the invention include a concrete retaining portion adjacent the curb box cap whereby the cap is protected from direct engagement with the surrounding media, such as concrete and ease of cap operation is assured. Additionally, novel friction producing means are defined on one of the curb box telescoping members from the material thereof to produce a dependable frictional engagement between the members without the use of additional clamping or gripping means.

BRIEF DESCRIPTION OF THE DRAWINGS

The aforementioned objects of the invention will be appreciated from the following description and accompanying drawings wherein:

FIG. 1 is a perspective view of a finished curb box lower portion in accord with the invention;

FIG. 2 is a side, elevational view of the curb box of FIG. 1;

FIG. 3 is a perspective view of a curb box blank constructed in accord with the invention prior to the severing of the arched flanges;

FIG. 4 is an elevational, side view of the curb box in the form of FIG. 3;

FIG. 5 is a perspective view similar to FIG. 3 illustrating the configuration upon the smaller radially extending protuberance being cut to define a small opening into the box;

FIG. 6 is an elevational view of the cylindrical blank used to form the curb box;

FIG. 7 illustrates the configuration of the formed blank prior to severing;

FIG. 8 is a top view of the blank of FIG. 7;

FIG. 9 is a block diagram illustrating the operations required to form a curb box in accord with the invention;

FIG. 10 is an elevational, perspective view of the two parts of the mold or form used in the practice of the invention;

FIG. 11 is a schematic view of the orientation of the formed blank prior to severing of the arched flanges, an alternate saw position being shown in dotted lines;

FIG. 12 is an enlarged detail, elevational, sectional view of a typical installation of a curb box in accord with the invention;

FIG. 13 is a perspective view of one mode of using the curb box of the invention with a Tee synthetic plastic valve wherein a base plate is not employed;

FIG. 14 is an elevational, sectional view illustrating a curb box in operating situ utilizing a base plate located below the conduit with which the box is associated;

FIG. 15 is an enlarged, elevational view of the cap and upper curb box portion end illustrating the cap protective portion of the curb box;

FIG. 16 is an enlarged, detail, elevational view of the uppermost end of the lower curb box portion illustrating the friction producing means;

FIG. 17 is an enlarged, detail, sectional view taken along Section XVII-XVII of FIG. 16;

FIG. 18 is a top plan view of one embodiment of the base plate which may be used with the invention, such as shown in FIG. 14;

FIG. 19 is a side view of the base plate of FIG. 18;

FIG. 20 is a perspective view of a modified form of curb box base plate;

FIG. 21 is a sectional view of the base plate of FIG. 20 taken along Section XXI-XXI thereof;

FIG. 22 is an elevational, sectional view taken through the base plate of FIG. 20 along Section XXII-XXII thereof;

FIG. 23 is a detail view of one mode of usage of the base plate of FIG. 22 as used in conjunction with a synthetic plastic Tee valve;

FIG. 24 is an elevational view of a curb box wrench which may be employed when using the curb box with a plastic valve; and

FIG. 25 is an elevational view, partly sectioned, illustrating the valve wrench construction as associated with a valve, shown in dotted lines.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The curb box in accord with the invention will normally have a final appearance as indicated in FIG. 1. An alternative final appearance is indicated in FIGS. 3, 5 and 23, as will be later explained. A curb box construction is illustrated in FIG. 1 consists of an upper cylindrical tubular portion 10, and a lower cylindrical tubular bell-shaped body portion 12 interconnected to the upper portion by a radially extending shoulder 14 which is disposed perpendicular to the axis of the curb box tubular portions. The upper tubular portion 10 is adapted to telescopically receive the upper portion of the curb box as shown in FIG. 14.

The lower end of the cylindrical portion 12 is formed with a radially extending shoulder 16 from which depends an axially extending flange 18 terminating in a lower edge 20.

A rib 19 is defined in each side of the bell portion 12 extending between shoulders 14 and 16 to strengthen the portion 12, and also provide additional resistance to rotation of the member when buried.

Adjacent the lower end of the portion 12 is formed the arched flange construction which provides entrance of the conduit into the box. The arched flanged structure includes linear side flange portions 22 extending outwardly from the cylindrical portion 12, and formed integrally therewith. The side portions 22 of the flange are interconnected at their upper region by an arcuate flange portion 24 convex with respect toward the shoulder 14. The flanged portions 22 and 24 may be described, for purposes of illustration, as being radial, although this relationship is not entirely accurate in that an extension of the plane of the side portions 22 would not pass through the axis of the cylindrical portion 12. The formed flanged opening 26 terminates in an edge 28 defined upon the portions 22 and 24.

Preferably, two arched openings 26 are defined in each curb box in diametrically opposed relation, and in this manner a conduit 30 may pass through the box, locating a valve 32, FIG. 12, therein as illustrated.

When buried in the earth, the shoulder portions 14 and 16 resist movement of the curb box in an upward direction, in that these shoulders will be directly engaged by the surrounding earth. Additionally, the underside of the shoulder 16 will engage earth and resist a downward movement of the curb box. The flanged wall portions 22 effectively resist rotation of the buried curb box, and the combination of the radial shoulders, the ribs 19, and the flanged wall portions insure that the curb box is not likely to deviate significantly from its original orientation to the conduit, once installed and backfilled.

As illustrated in FIG. 12, the curb box is placed upon the conduit 30, and the valve 32, such that the undersurface 34 of the arched flange portion 24 is disposed toward the top wall of the conduit, and may bear thereon. However, it is preferred that a clearance exist between portion 24 and the conduit.

Due to the radial dimension of the arched flange 24, a significant contact area exists between the curb box and the conduit 30 should they engage, which minimizes localized stresses being imposed upon the conduit due to a downward force applied to the box.

It is desired in some instances, such as with plastic pipe installations, that the curb box be used to provide access to the tap-in valve of a service conduit to a primary supply conduit. In such an application the size of the conduit entering the curb box is considerably smaller than in the aforescribed installation, and in such occurrence a curb box configuration such as shown in FIG. 5 may be employed.

As will be later apparent, the curb box configuration shown in FIG. 5 is formed from the identical blank as the configuration of FIG. 1, and identical components are indicated by similar reference numbers.

In the embodiment of FIG. 5 the flanged wall portions 22 and 24 are not severed to define an opening 26, and rather, these flanged portions are closed by a planar wall 36. A protuberance 38 extends from the planar wall 36 consisting of flange sides 40 interconnected by an arcuate flange portion 42 terminating in an edge, and defining a small arched opening 44.

The embodiment of FIG. 5 is utilized as shown in dotted lines in FIG. 13. The curb box lower edge 20 sits upon the primary conduit 46 or slightly thereabove, and the service conduit 48 extends from the arched opening 44. The valve 50 associated with the conduit 48 taps into the conduit 46, and is accessible from the interior of the curb box as will be appreciated.

The method of forming the curb box of the invention will be appreciated from FIGS. 6 through 11. Initially, the raw material to form the curb box is in the form of a cylindrical tube of plastic material, such as at 52, having a substantially uniform wall thickness. This tube 52 will usually be formed by an extrusion process, and includes end regions 54 and a central region 56. The central region 56 is heated by suitable means to a temperature rendering the cylindrical tube material moldable, and thereupon the portion 56 is placed in a mold 58 as represented in FIG. 10.

The mold halves 60 and 62 shown in FIG. 10 are adapted to be clamped together in a known way, and each of the mold configurations includes cylindrical die cavities 64 adapted to engage and confine the tube at regions 54 adjacent the central region 56. A larger cylindrical recessed cavity 66 is defined in the die halves to form the enlarged diameter portions 12, the shoulder 14, and the shoulder 16 and flange 18 are formed by the shoulder 68 and recess 70, respectively. Each of the die halves is formed with an oval recess 72 which forms the flange walls 22 and 24.

In the die half 60 an additional oval recess 74 is formed centrally located within the associated recess 72 to define the protuberance 38 and flanged wall portions 40 and 42.

Preferably, a plurality of small evacuating holes, not shown, are defined in the die cavity 66, and associated recesses, whereby the die cavities may be evacuated of atmospheric pressure permitting the heated central tube region 56 to expand against the die surfaces and assume the configuration thereof. Of course, it is also possible to pressurize the interior of the heated tube to accomplish the same purpose.

After the forming of the heated central region of the tube the formed tube is cooled and the molded double blank removed therefrom. At this time the blank is of the configuration shown in FIGS. 7 and 8, wherein those portions represented by previously described curb box portions bear like reference numerals.

After the formed blank has cooled, the arched openings 26 or 44 are defined by cutting the blank at lines 76, or at line 78, depending on whether the configuration of FIG. 1 or FIG. 5 is desired. If the configuration of FIG. 1 is desired, the blank will be cut along dotted lines 76 by saw blades 80 mounted in shaft 86 driven by a motor 82 as schematically represented on FIG. 11. If the curb box configuration of FIG. 5 is desired, the left

saw blade 80, FIG. 11, is moved to the dotted line position 84, and the right saw blade 80 is removed from the drive shaft 86 or moved to the right so as to clear the blank. In such instances the blank will be cut along the line 78 only.

After the arch openings have been cut into the double blank, the blank is centrally severed along the line 88, FIGS. 7 and 8, to form the two curb box portions which result from each formed double blank. After the double blank has been severed at 88, any secondary operations to be performed, such as dimpling of the cylindrical portion 10 to increase the efficient engagement with the upper curb box portion, are accomplished, and the formation is complete.

The afordescribed steps can be accomplished on automated, or semiautomated equipment, and the sequence of stations of such equipment to produce curb boxes in accord with the invention is shown in FIG. 9. The necessary apparatus to perform the sequential operations could be mounted adjacent a rotary transfer table, in line, or other arrangement and interconnected by known transfer devices whereby the loading of the blanks and removal of the finished curb boxes can be rapidly accomplished.

FIGS. 3 and 4 represent the configuration of the boxes if the blank was severed only along line 88, and no openings are defined therein. This type of construction is used where a curb box is desired which is only open at the bottom, and the conduits do not extend therethrough.

FIG. 14 illustrates a complete curb box constructed in accord with the invention utilized in connection with a subterranean service conduit and a base plate. In the embodiment of FIG. 14 the lower portion of the curb box consisting of the portions 10 and the bell portion 12 is telescopically associated with the upper curb box portion 90. The lower curb box portion illustrated in FIG. 14 is preferably constructed in accord with the previous method, and the flange portions 22 are severed to define the large arch openings 26 on opposite sides thereof as shown in FIG. 1.

The upper curb box portion 90 includes a tubular shank 92 telescopically received within the lower curb box portion 10, and the shank is of a diameter only slightly less than the inner diameter of the portion 10. Friction means generally indicated at 94, which will be later described, maintain a frictional interconnection between the curb box portions 10 and 90 to permit selective telescoping adjustment between the curb box portions.

The upper end region of the curb box portion 90 includes a cylindrical enlarged portion 96, a reduced portion 98, and a cap retainer cylindrical peripheral portion 100 adjacent the upper end 102. The portion 90 is preferably formed of the same synthetic plastic material as the lower portion of the curb box, as previously described, and a portion of the wall 96 is recessed at 104 to receive a magnet 106, which can be formed anisotropically or formed of Alnico 5. The purpose of the magnet 106 is to facilitate location of the curb box should it be buried, hidden among high grass or otherwise not visible. The upper end of the curb box is closed by a cap 108 which includes a maximum diameter peripheral portion 110 and a shoulder 112. The cap 108 is preferably constructed similar to that shown in the assignee's U.S. Pat. No. 3,115,267, and is, therefore, not illustrated in greater detail. The cap is operated by means of the bolt 114, FIG. 15, which may be rotated by applying a wrench thereto.

As will be appreciated from FIG. 15, the cap 108 will rest upon the radial shoulder 116, and the axial length of the cement retainer portion 100 is sufficient to receive the cap peripheral portion 110. Thus, when the curb box is installed as shown in FIG. 14, where the ground may include a cement or asphalt surface 118, the curb box portion 100 will protect the cover 108 from being directly engaged by the concrete, asphalt or other media surrounding the curb box upper end. Thus, the cap will not be "cemented" into place, debris is prevented from entering the curb box, and the operation and ease of removal and installation of the cap is assured, as contrasted with curb boxes wherein the surrounding media may directly engage a portion of the cap.

The friction-producing means which is preferably employed with the curb box of the invention is illustrated in detail in FIGS. 16 and 17. The friction means produces a plurality of radially disposed dimples 120 formed in one of the member's curb box telescoping portions. In the illustrated embodiment the friction means is defined in the curb box portion 10. Dimples 120 are evenly circumferentially spaced about the portion 10 and include an inner surface 122 radially disposed inwardly of the normal inner surface 124 of the portion 10. A pair of slots 126 are defined upon each lateral side of the dimples 120 extending in the longitudinal direction of the portion 10. The slots 126 are of sufficient length, greater than that of the dimple and spaced from the dimple as to permit restricted radial movement of the dimple upon the surface 122 thereof being engaged by the outer surface of the curb box shank 92.

Upon insertion of the curb box shank into the curb box portion 10 the diameter of the shank 92 is such as to radially deflect the dimples 120 outwardly due to the engagement thereof with the dimple surfaces 122. This radial outward deflection is permitted by the resiliency of the dimples achieved by the use of the slots 126. The dimples resist this radial deflection due to the natural resiliency of the material of the portion 10 and thus an effective frictional engagement between the portion 10 and the upper curb box shank 92 is achieved.

Public utility companies often desire that the curb box not directly engage the conduit with which it is associated, and, in fact, it is often desired that the curb box not engage the conduit even though high downward pressures are imposed upon the curb box. While the telescoping adjustment between the portions 10 and 90 will usually prevent high downward pressures being imposed upon the conduit by means of the curb box, it is often desired that a base plate be utilized with the curb box to increase its stability prior to backfilling, and also to completely remove any tendency for the curb box to move vertically relative to the conduit once backfilling is completed.

One type of base plate which may be used with the curb box of the invention is illustrated in FIGS. 18 and 19. This base plate may be formed of a synthetic plastic material similar to that from which the curb box is manufactured, and the base plate may be shaped from sheet material by a vacuum-type mold. The plate 128 is of a generally planar configuration having a periphery 130, and an upstanding central boss portion 132 of a configuration generally conforming to that of the cross-sectional configuration of the bell 12 adjacent the lower flange 18. However, the boss is of slightly less diametrical dimension than the bell so as to be received therein as will be apparent from FIG. 14. By use of adhesives or solvents the base plate may be attached to the bell portion 12. It is possible to install the base plate 128 in the field whereby the base plate may be located below the service conduit 134, as shown in FIG. 14. Thus, in this type of installation vertical downward movement of the lower curb box portion relative to the conduit is prevented due to the extensive area of support provided by the base plate. The strength of the base plate is increased by the use of a plurality of ribs 136 generally radially extending from the center of the boss 132.

FIGS. 20 through 23 illustrate another type of base plate which may be used with the curb box of the invention, and this type of base plate is particularly suitable for use with plastic Tee valves of the type shown in FIG. 13 wherein it is desired to prevent direct engagement and support of the curb box on the conduit 138. In this embodiment the base plate 140 is similar to that shown in FIGS. 18 and 19 and similar portions are indicated by primes. However, the boss 132' is covered over its top by a portion 142 having a hole 144 defined therein. Additionally, one of the planar ends of the boss 132' has an arched opening 146 formed therein. The bell of the bell 12 of the curb box fits over the boss 132' and is affixed thereto by an adhesive or solvent.

FIG. 23 illustrates the manner in which the base plate 140 and curb box are employed with synthetic plastic Tees. The curb box is located such that the base plate 140 is spaced above the conduit 138 and dirt backfill is located at 148 inter-

mediate the conduit and base plate. The upstanding portion of the valve 150 extends through the opening 144 into the curb box for access from the upper regions of the curb box. The arched opening 46 provides clearance for the valve service conduit 152 and the opening 146 is large enough to accommodate a tubular shield 154 which may be placed over the service conduit 152 for its protection during backfilling. In the embodiment of FIG. 23 the curb box construction similar to that shown in FIG. 5 is preferably used. However, the vertical dimension of the projection 38 is reduced in that the arch 146 need not be of the vertical dimension of the type of installation shown in FIG. 13.

Operation of the valve 150 may be accomplished by means of a valve wrench 156 as shown in FIGS. 24 and 25. This type of wrench includes an elongated handle 158 having a cup-shaped member 160 at one end, and a hexagon wrench portion 162 located at the upper end. The cup-shaped member 160 includes a conical recess 164 which is lined with a vinyl material 168 of a high frictional characteristic, yet is tough, readily moldable and capable of firmly bonding to the cup. By placing the cap 160 over the valve operating head 166 a frictional engagement occurs between the wrench and the valve head which permits the valve head to be unscrewed. Thereupon, the wrench portion 162 of the wrench is inserted into the valve to operate the internal valve member. The use of the valve wrench 156 permits the Tee valve 150 to function as a valve, as well as a means for tapping into a main supply conduit.

It will be appreciated that the aforementioned method of forming a curb box, and the resulting curb box, produce an economical construction capable of protecting the associated conduit and components, and resisting both axial and rotational forces imposed upon the curb box. The provision of the protrusion 38 provides an alternative form to the curb box without requiring additional material, or machining operations, or molds and thereby minimizes the cost of producing a curb box which may be alternatively used.

I claim:

1. The method of making a curb box of a synthetic thermoplastic material wherein the curb box includes a cylindrical portion terminating in a bell portion having at least one conduit-receiving flanged arch defined therein, comprising the steps of heating a cylindrical tubular blank of thermoplastic material at a predetermined portion, placing said heated predetermined portion in a mold, radially expanding said heated portion into engagement with said mold to shape said heated portion into a closed wall bell portion configuration including radially extending flange and arch portions, removing said bell portion configuration from said mold and severing at least one of said flange and arch portions in the general direction of the length of said blank to define an opening in the severed flange and arch portion.

2. The method of making a curb box as in claim 1 wherein a pair of diametrically opposed flange and arch portions are defined in said bell portion, and each of said flange and arch portions are severed to define an opening in each flange and arch portion.

3. The method of making a curb box as in claim 1 wherein said cylindrical tubular blank includes a central region, said central region constituting said predetermined portion heated and shaped, said shaped closed wall bell portion configuration comprising first and second axially extending portions which are the mirror image of each other relative to a centrally disposed plane perpendicularly disposed to and intersecting the longitudinal axis of said blank, including the additional step of severing said shaped bell portion along said centrally

disposed plane after said flange and arch portion has been severed.

4. A curb box construction formed of a synthetic, plastic, noncorrodible, moldable material comprising, in combination, a cylindrical portion having opposed ends and an axis, a bell portion integrally depending from one of said ends, said bell portion including an annular shoulder radially extending from said one cylindrical portion end and a tubular axially extending body, an outwardly extending first protuberance defined on said body from the material thereof, said protuberance including a pair of spaced sidewall portions, an arcuate portion connecting said sidewall portions and a substantially planar wall depending from said sidewalls and connecting portion, an outwardly extending second protuberance defined on said planar wall including a pair of second spaced sidewall portions and a second arcuate portion connecting said second sidewall portions, and a second wall depending from said second sidewalls and second connecting portion.

5. A curb box formed of a synthetic, plastic, noncorrodible, moldable material comprising, in combination, an upper tubular portion and a lower tubular portion said upper portion being telescopically received within said lower portion and having a longitudinal axis, said upper portion including an upper end adapted to be selectively closed by a cap, an annular radially extending cap-engaging surface having an outer periphery and adapted to axially position the cap located adjacent said upper end, and an annular axially extending cap retainer portion defined on said upper portion extending from said periphery of said cap-engaging surface toward said upper end circumferentially enclosing a cap located on said cap-engaging surface.

6. A curb box formed of a synthetic, plastic, noncorrodible, moldable material comprising, in combination, an upper tubular portion and a lower tubular portion, one of said portions being telescopically received within the other of said portions, friction-producing means defined on at least one of said portions frictionally engaging the other portion to frictionally resist axial telescoping of said portions, said friction producing means comprising a plurality of radially extending dimples defined in one of said portions from the material thereof radially extending toward the other portion and at least one slit defined in the portion in which the said dimples are formed adjacent each dimple to facilitate radial deflection of said dimples.

7. In a curb box as in claim 6 wherein a pair of slits are defined in the portion in which said dimples are formed adjacent each of said dimples, a slit being located on opposite sides of each dimple.

8. A curb box formed of a synthetic, plastic, noncorrodible, moldable material comprising, in combination, upper and lower tubular portions telescopically interconnected, a lower end defined on said lower portion, said lower end being of a cylindrical configuration having diametrically opposed radially extending rectangular cross-sectional portions defined thereon, a base plate of synthetic, plastic, noncorrodible, moldable material affixed to said lower end radially extending therefrom with respect to the longitudinal length of said lower portion, and a projection integrally defined on said base plate from the material thereof received within said lower portion lower end mounting said base plate to said lower end, said projection including a cylindrical configuration and diametrically opposed radially extending rectangular cross-sectional portions corresponding to the configuration of said lower end whereby angular rotation of said base plate relative to said lower portion longitudinal length is prevented.