Feb. 20, 1968 D. DESKEY ET AL 3,369,331

UTILITY STANDARDS

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Fig. 1.

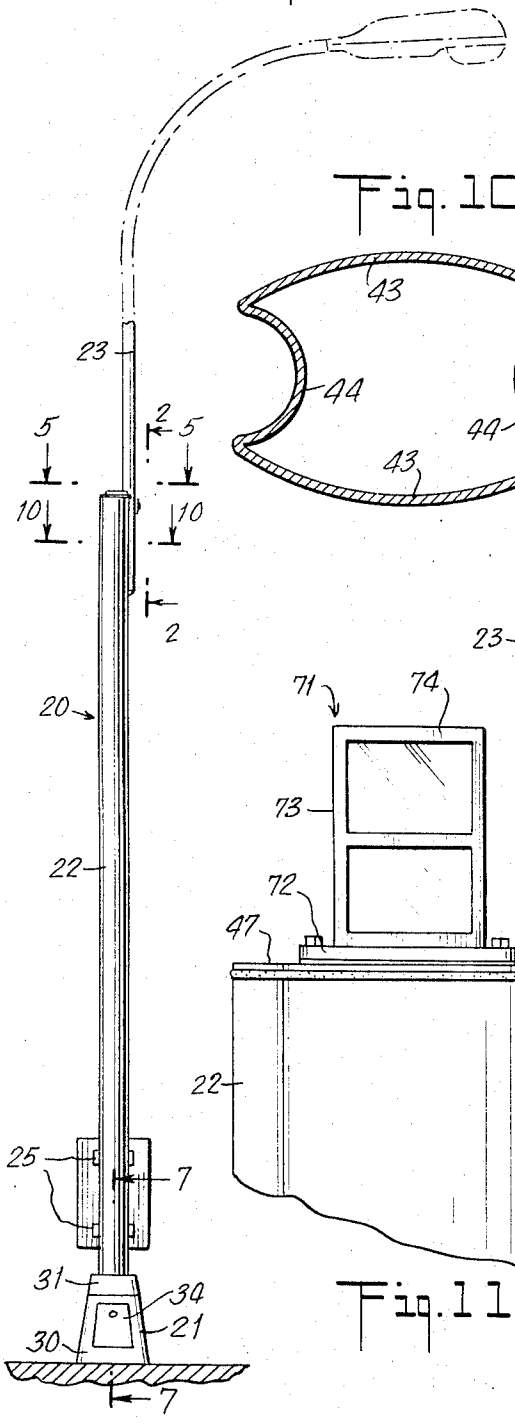
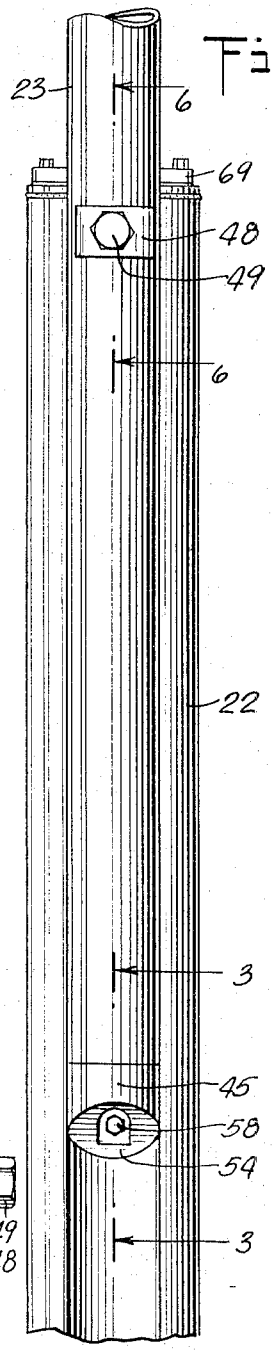


Fig. 10.

Fig. 11.

Fig. 2.



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Fig. 3.

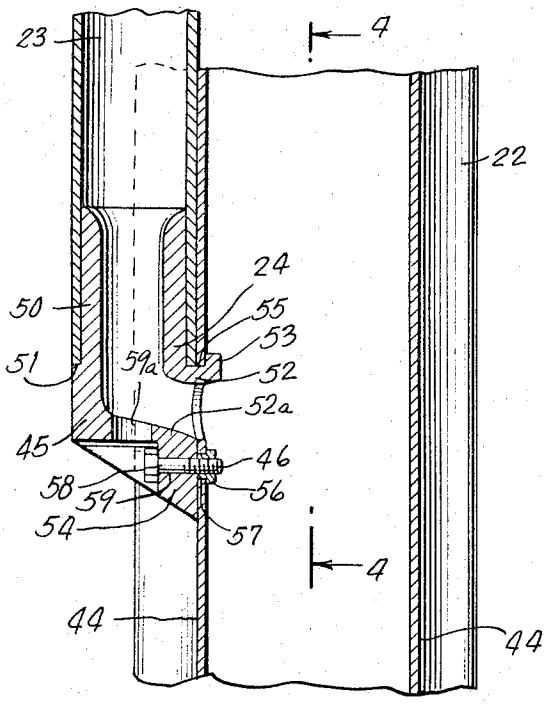


Fig. 4.

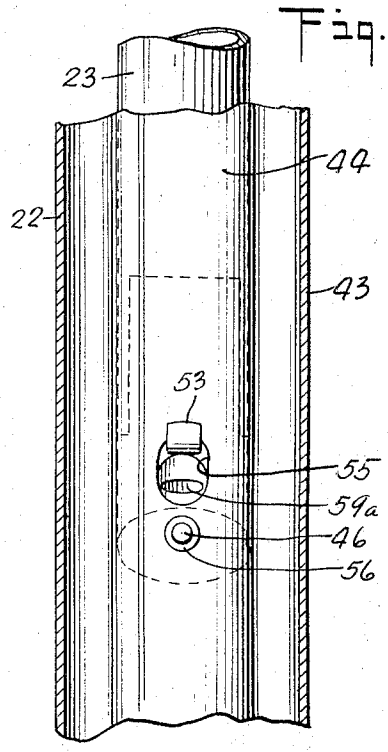


Fig. 6.

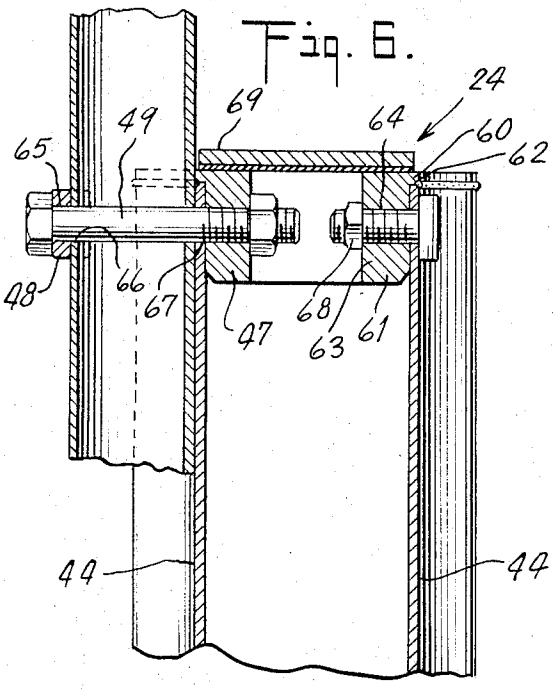
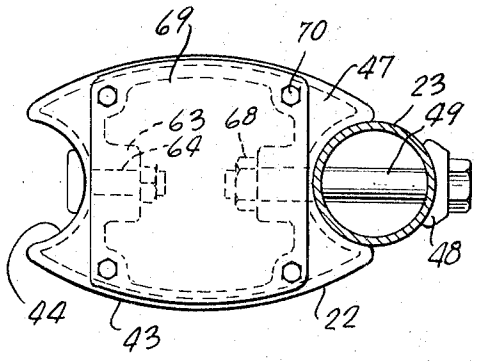


Fig. 5.



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Fig. 7.

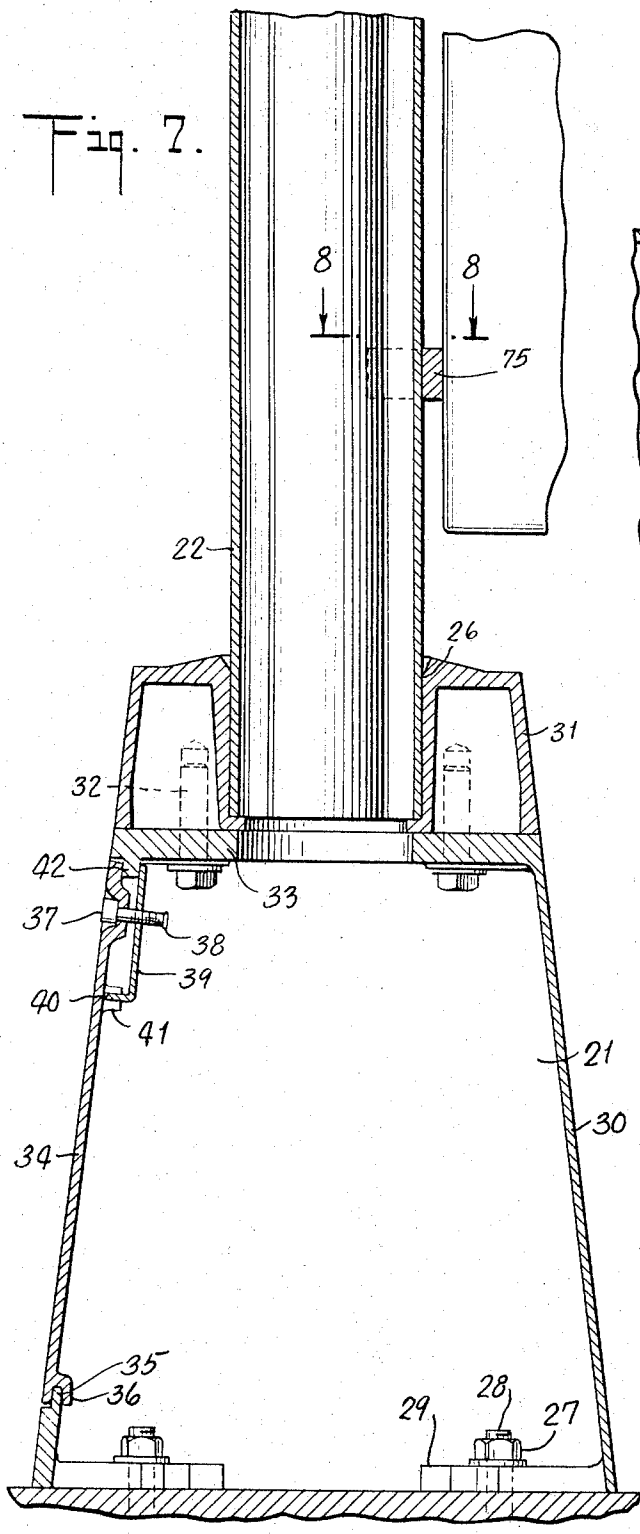


Fig. 8.

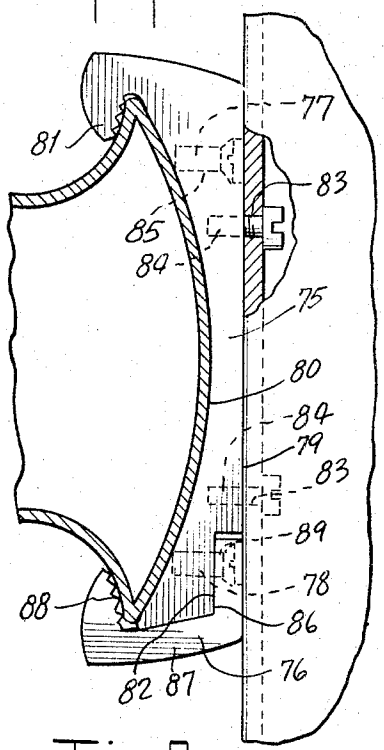
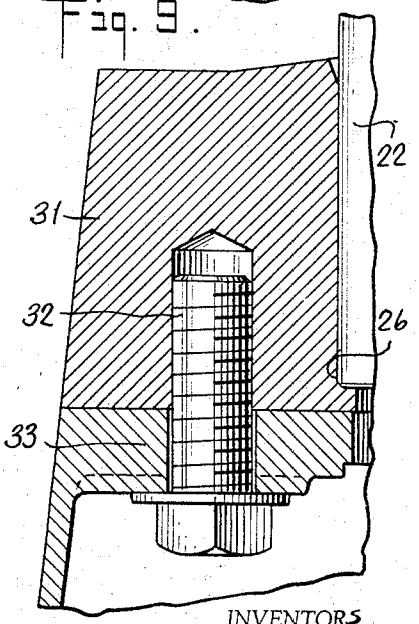


Fig. 9.



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3,369,331

UTILITY STANDARDS

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Filed Feb. 17, 1964, Ser. No. 345,403
20 Claims. (Cl. 52—38)

ABSTRACT OF THE DISCLOSURE

This invention pertains to light and multi-service utility standards, and particularly to the cross-sectional shape of the shaft and the arm; the means for assembling and nesting the arm within the confines of the shaft; the structure of the base; and the means for holding the shaft to the base.

Our invention relates in general to light and multi-service utility standards, and more particularly to the cross sectional shape of the shaft and the arm; the means of assembling and holding the arm to the shaft; the structure of the base; and the means of holding the shaft on the base.

Heretofore in municipal lighting and utility pole systems there have been no standardization of base, shaft, arm and the attachment to them of the various utilities which normally are spread throughout the streets of a city, and no effort has been made to establish a single base-shaft-arm combination capable of carrying all the utility items required in municipal life.

Therefore, with the idea in mind of a general utility standard, we have striven to create a structure capable of carrying and having easily assembled thereupon all the normal utilities. In addition, we have especially desired to construct a standard or shaft and base combination which is easily assembled, structurally sound and strong, which does not lend itself to thievery and malicious mischief and which is relatively inexpensive to purchase, economical in erection and maintenance and has a long life span. In addition, a further aim or purpose has been to create a utility standard which, while giving the maximum strength for a minimum of material, also results in a neat, trim, graceful and pleasing structure which enhances the appearance of the street upon which it is erected.

A further purpose is to provide a base housing for carrying a shaft and for encasing electrical equipment such as a transformer, of a transformer base and a shoe base and having them secured together by screw means which are entirely within the base.

Another purpose is to shape or contour the cross section of the shaft and arm so that the arm can nest in the shaft to add structural strength to the standard, the assemblage and the joinder of arm and shaft and further to permit an inexpensive and easy joinder of the arm and shaft.

An additional object is to firmly secure the arm to the shaft by means of a bracket positioned at the lower end of the arm and at an intermediate position of the shaft and a screw and inset positioned at the upper end of the shaft and at an intermediate position of the arm.

A further purpose is to provide a bracket retaining the lower end of the arm and shaft together, which is designed in such a manner that only a single screw is required to secure the elements. Also, the bracket is provided with an opening to permit electrical wires to be drawn easily through the shaft into the arm.

Another object is to provide a rigid, strong shaft with a minimum of cross sectional area by disposing a high percentage of the sectional area at a distance from the center of the shaft.

Another object is to provide a unique, easily assembled and strong means of securing the arm to the top of the shaft.

An additional object is to provide a retaining means for supporting an alarm box or other utility having a gripping element so that the means can be easily attached to the shaft.

A further object is to provide a traffic directional signal box casing with a simple attaching means for securing said box to the end of the shaft.

These and other objects are accomplished by forming the multi-service utility standard of a base, a shaft, an arm, and means for securing said arm and shaft together, said base being formed in two sections interiorly screwed together and the upper section thereof having a well, suitable for carrying and supporting the shaft, said shaft end being seated in the well and adhesively bonded or welded to its sides, and said shaft having a cross sectional shape comprised of two longer opposing convex arcuate sections and two shorter opposing concave arcuate sections joining the ends of the convex sections into a closed hollow shape, and the arm having a circular or arcuate cross section suitable for nestling in one of the concave sections of the shaft, and said securing means having a bracket securing the lower end of the arm to an intermediate portion of the shaft and an insert, saddle and bolt securing an intermediate portion of the arm to the upper end of the shaft whereby the base, shaft and arm are rigidly and strongly secured together into a standard which can be used to support street lights, directional signals, street name placards, police and fire boxes and any other desired utility.

For further comprehension of the invention and of the objects and advantages thereof, reference will be made to the following description, the accompanying drawings and appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIGURE 1 is a side view of our invention showing a multi-purpose utility standard formed of a base, shaft and arm and utility box support in solid line and a common type luminaire in dotted line.

FIGURE 2 is an enlarged sectional view along the line 2—2 of FIGURE 1 and shows means of holding and supporting the arm on the shaft.

FIGURE 3 is an enlarged sectional view along the line 3—3 of FIGURE 2 and shows a bracket of the supporting means securing the lower end of the arm and shaft.

FIGURE 4 is an enlarged sectional view along the line 4—4 of FIGURE 3 and shows the same bracket as FIGURE 3.

FIGURE 5 is an enlarged view along the line 5—5 of FIGURE 1 and shows a part of the supporting means securing the upper end of the shaft and arms, and a closure cap.

FIGURE 6 is an enlarged sectional view along the line 6—6 of FIGURE 2 and shows the same part of the supporting means shown in FIGURE 5.

FIGURE 7 is an enlarged sectional view along the line 7—7 of FIGURE 1 and shows the base, shaft and utility box support of our standard.

FIGURE 8 is an enlarged sectional view along the line 8—8 of FIGURE 7 and shows the utility box support of the standard.

FIGURE 9 is a sectional detail showing a bolt holding the upper part of the base to the lower part of the base, and

FIGURE 10 is an enlarged sectional view along the line 10—10 of FIGURE 1 showing the cross sectional shape of the shaft and the nesting of the arm in one of the concave sections of the shaft.

FIGURE 11 is a variation of the cover plate and includes a directional signal box casing.

In the drawings and in the specifications, in which like numerals indicate similar elements, our multi-service utility standard **20** (see FIGURE 1), is shown comprised of a hollow base **21**, shaft **22**, arm **23**, a securing means **24** for holding the arm in rigid position adjacent the shaft and a utility box support **25**. In general, the standard is assembled and positioned by anchoring the base to the ground, adhesively bonding or welding the lower end of the shaft **22** into a well or seat **26** centrally disposed in the base, positioning and rigidly securing the arm to the shaft by the securing means **24** at both the lower end of the arm and an intermediate position of the shaft and at the upper end of the shaft and an intermediate position of the arm, and by securing the utility box support **25** to the shaft. The base is anchored to a foundation or the ground by nuts **27** and bolts **28** protruding from a foundation and extending upward through ears or lugs **29** of the lower section **30**.

The base **21** (see FIGURES 7 and 9) is formed of the lower section **30**, sometimes called the transformer base as it normally houses a transformer, and an upper section **31**, sometimes called a shoe base. The upper section rests on the lower section and the two are secured together by interior bolts **32** which extend upwardly through ears **33** in the lower section into solid portions of the upper section. The lower section is provided with a trap door **34** hinged for movement by the studs **35** extending into the inverted U seats **36**. A lock also is provided for the door **34**, consisting of a bolt **37** with an upset end **38**, a plate **39** having a lip **40**, and a stud **41** positioned on the lower section which acts as a stop for the lip **40**. The bolt **37** extends through the door and is screwed through the plate above its center of gravity. The catch **42** for the lock is a downwardly extending projection positioned in the lower section at the top of the trap doorway and slightly in back of it. The lock is manipulated to open the door by screwing the bolt **37** so that the plate **39** retreats enough to permit the top of the door to clear the base face when the bolt is pulled forward. The door is then lifted out of the inverted U seats **36**. Closure of the door is made simply by having the plate at a position farthest from the door, then positioning the door adjacent the doorway with the plate in back of the catch **42**, then lifting the door and rotating its bottom portion so that the inverted U **36** seats on the studs **35** and then rotating the top portion of the door into position and screwing the bolt **37** until the plate is snugly against its rear. This closure and locking means is easily manipulated by one educated to the process but difficult to the unskilled. Furthermore, the door itself is not a likely subject for malicious mischief or thievery as the elements are of no general interest or other of multiple use. Thus the transformer or other devices in the base can be approached easily as well as the bolts **32** which hold the shoe base to the lower base section.

The shaft **22** (see FIGURE 10) is hollow in order to carry the necessary electric cables and has a cross sectional contour formed of two longer convex arcuate sections **43**, spaced apart, and two shorter concave arcuate sections **44**, spaced apart, and contiguous with the convex sections, so that the outline of the cross section is actually convex, concave, convex and concave. This shape is structurally strong because of its large section modulus and resists torsion because of the positioning of the concentration of material at the junction of the arcuate sections. Furthermore, it provides reduced wind resistance and permits the arm **23**, which is round and fits into the concave section **44**, to be nested therein. This nesting, together with the securing means **24** (hereinafter described), rigidly and strongly retains the arm and shaft together. The arm **23** is, of course, hollow to permit the electric cables (not shown) to pass upward into a luminaire (shown dashed) or other fixture at the end of the arm.

While FIGURE 10 shows a shaft whose corner sides are arcs of an ellipse (or arcs of circles not having a common center), the corner sides may be in the form of arcs of a circle having a common center.

The securing means **24** (see FIGURE 2) is comprised of two parts, one of which is formed of a bracket **45** (see FIGURE 3) and a bolt **46** functioning together to retain and support the lower end of the arm against the shaft; the other is comprised of an insert **47** (see FIGURE 6), saddle **48** and bolt **49** functioning together to secure the arm to the upper end of the shaft. The two parts, functioning at a distance apart, together with the nesting, admirably support and retain the arm and shaft in rigid fixed position.

The hollow L shaped bracket **45** (see FIGURES 3 and 4) has an upwardly extending circular section **50** which fits tightly inside the end of the arm and a shouldered seat **51** upon which the end of the arm rests. The horizontally extending section **52** is provided with an upwardly extending lug **53** and a downwardly extending ear **54**. At the position or location of the lower end of the arm and the bracket **45**, an opening **55** is made in one of the concave sections **44** of the shaft so that electric cables can be drawn upward through the shaft and into and through the bracket into the arm, and also to provide an entrance for the horizontally extending section **52**. The bracket is positioned with its lug **53** resting against the inside of the shaft and its ear **54** abutting the outside of the shaft A shouldered nut **56** is inserted through the opening **55** and is seated (force fitted) inside and against the shaft in a hole **57** slightly below the opening **55**. A bolt **58** is inserted through a hole **59** in the ear **53** and is screwed into the shouldered nut **56** to hold the bracket securely in position. To aid in pulling the cables through the bracket and upwardly into the arm, an opening **59A** is provided in the horizontal section **52A** of the bracket. If desired opening **59A** may be covered with a riveted plate.

The upper securing means **24** (see FIGURES 5 and 6), which as heretofore stated as being comprised of an insert **47**, saddle **48** and bolt **49**, is, in more detail, as follows. The hollow insert **47** has a flanged seating portion **60** and a downwardly extending portion **61** which hugs the inside walls of the shaft. To retain the insert in position, a V cut **62** is provided which is the seat of a weld. However, instead of welding, epoxy or other adhesive means can be used to secure the insert to the shaft. The downwardly extending portion **61** of the insert is provided, at each of its concave positions, with an inwardly extending boss **63**, having a threaded hole **64** therethrough. The saddle **48** is contoured to fit the arm **23** and rests against it. The bolt **49** extends through holes **65** in the saddle, **66** in the arm and **67** in the shaft and is screwed into the threaded hole **64** in the insert. A locknut **68** is screwed over the end of the bolt **49**. The upper part of the arm is thus securely fastened to the top of the shaft.

In the drawings, only one arm is shown; however, an arm could be provided for each of the concave sides of the shaft, and each would be secured as described. In the case of one arm only, a bolt similar to **49**, but shorter, is used and no saddle is required. A cover plate **69** is provided for the insert and shaft end and is secured to the insert by screws or bolts **70**. If desired, a neoprene or other type washer can be inserted below the cover plate.

The configuration of the shaft, and particularly if a series of spaced openings is provided therein, permits the arm to be adjusted both in height and its relationship to the concave and convex sections of the shaft.

In the variation (see FIGURE 11), a cover plate and directional signal element **71** is shown, which is comprised of a base plate **72**, upstanding sides **73**, and a top **74**. The base plate **72** is similar to cover plate **69** but has an opening therethrough for electric cables. The plates **72** can be integral with the sides **73** and top **74** or they could be separate elements screwed or bolted together. The

sides 73 have windows therein for light rays of various colors to pass through.

In addition to the above directional signal element, there may also be consolidated therewith, or separately mounted, signals to indicate various services attached to the same pole, such as, police call boxes or fire alarm boxes.

The utility box support 25 (see FIGURE 8) is comprised of a fixed jaw element 75 and a movable jaw element 76 which function together with the aid of screws 77 in the fixed jaw and 78 in the movable jaw to retain the support tightly against the shaft 22. The fixed jaw 75 is formed with a flat front face 79 against which the utility box can rest, a rear arcuate face 80 having a contour similar but opposing the contour of the convex section 43 so that it can rest thereagainst, an inwardly extending serrated and arcuate section 81 shaped similar but opposite to the concave section 44 of the shaft, the serrated section being positioned at one end of the support 25 and a shouldered seat 82 positioned at the other end of the support 25. The fixed jaw 76 is provided at its front flat face with threaded holes 83 into which screws 84 can be inserted to retain a utility box and with a countersunk threaded hole 85 extending completely through the jaw element. Resting in the hole 85 is screw 77 which, when tightened against the convex section 43 forces the arcuate face 80 away from the convex section 43 and also forces the serrated arcuate section 81 against the concave section, thus clamping the support 25 against the shaft. The movable jaw 76 is formed with a seating portion 86 corresponding to seat 82, an angled portion 87 and an inwardly extending serrated arcuate portion 88 corresponding to size and shape to and extending towards the section 81. The fixed jaw and the movable jaw are provided with a countersunk coaxial hole 89, the fixed jaw portion of the hole being threaded. The screw 78 extends in the hole 89 and as it is tightened against the shaft, forces the seat 82 outwardly against the seating portion 86 and the serrated arcuate portion 88 inwardly against the concave section 44 of the shaft, thus clamping the support 25 against the shaft.

Thus, as heretofore described, we have devised a complete utility standard, which can support any and all devices desired by a community to guide and aid its population. The standard is unique and strong in its construction, in its shaping of the elements and in its method of assembly, and can well withstand the rigors of man and nature to which it will be subjected.

Although we have illustrated and described the preferred embodiment of the invention, it is understood that variations are possible, in the construction of the base, shape of the shaft and arm, the method of securing the shaft and arm together and in the number of arms and other utilities added, which still come within the scope of the invention, and it should therefore be understood that we do not limit ourselves to the precise construction herein disclosed and we reserve the right to all changes and modifications coming within the scope of the invention as defined in any or all of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by United States Letters Patent is:

1. A multi-service standard comprised of a hollow shaft, a hollow arm, and securing means, said arm and shaft having opposite and corresponding arcuate cross-sectional contours whereby the arm can be seated in the arcuate contour of the shaft, and said securing means being formed of two parts, one being positioned at the lower end of the arm and the other at the upper end of the shaft and each part having locking elements securing the arm to the shaft, and the part of the securing means positioned at the lower end of the arm is a bracket and threaded means, said bracket having a shouldered seat engaging the lower end of the arm and an extending part projecting into and upwardly against the wall of the shaft, and a downwardly extending ear resting against the outside of the shaft and said threaded means extending through the ear and secured to the shaft.

2. A multi-service standard comprised of a hollow shaft, a hollow arm, and securing means, said arm and shaft having opposite and corresponding arcuate cross-sectional contours with said shaft convex walls whereby the arm can be seated in the arcuate contour of the shaft, and said securing means being formed of two parts, one being positioned at the lower end of the arm and the other at the upper end of the shaft and each part having locking elements securing the arm to the shaft, and the part of the securing means positioned at the upper end of the shaft is an insert and a threaded means, said insert being positioned in the upper end of the shaft and having a flange and a shank, said flange being seated upon the end of the shaft and said shank resting against the inside of the convex walls of the shaft, and said securing means extending through the arm and being secured to the shaft and shank of the insert.

3. A bracket, for securing together two hollow tubular elements, formed of an L shape, the vertical portion of the L having a shouldered seat suitable for insertion in the end of and bearing one of the tubular elements, and the horizontal portion of the L terminating in upwardly and downwardly extending lugs, said horizontal portion suitable for insertion in an opening in the other hollow element and the upwardly extending lug resting against the inside of the element and the downwardly extending lug resting against the outside of the element, and the horizontal portion of the L of said bracket having an opening therethrough at a position below the vertical portion whereby when the bracket is inserted and holding the hollow tubular elements together, said opening is used to aid in the drawing of cables through said hollow tubular elements.

4. A multi-service standard comprised of a hollow shaft, a hollow arm, and securing means, said arm and shaft having opposite and corresponding arcuate cross-sectional contours whereby the arm can be seated in the shaft, and said securing means being formed of two parts, one being positioned at the lower end of the arm and the other at the upper end of the shaft and each part having locking elements securing the arm to the shaft, and the part of the securing means positioned at the lower end of the arm formed of a bracket and threaded means, said bracket having a shouldered seat capable of engaging the lower end of the arm and an extending part projecting into and upwardly against the wall of the shaft and a downwardly extending ear resting against the outside of the shaft, and said threaded means extending through the ear and secured to the shaft.

5. A multi-service standard comprised of a hollow shaft, a hollow arm, and securing means, said arm and shaft having opposite and corresponding arcuate cross-sectional contours whereby the arm can be seated in the shaft, and said securing means being formed of two parts, one being positioned at the lower end of the arm and the other at the upper end of the shaft and each part having locking elements securing the arm to the shaft, and the part of the securing means positioned at the upper end of the shaft formed of an insert and a threaded means, said insert being positioned in the upper end of the shaft and having a flange and a shank, said shaft having convex walls, said flange being seated on the end of the shaft and said shank resting against the inside of the convex walls of the shaft, and said securing means extending through the arm and being secured to the shaft and shank of the insert.

6. A means for securing a hollow arm to a hollow shaft, comprised of a bracket, an insert, and threaded elements, said bracket being positioned at the lower end of the arm, the shaft at the position of the bracket being defined by an opening therein, said bracket having an upwardly extending portion projecting into and supporting

the arm and an angled portion extending into the opening in the shaft and upwardly thereagainst and a downwardly extending ear abutting the outside of the shaft and one of the threaded elements extending through the ear and wall of the shaft and securing them together, and the insert being positioned at the upper end of the shaft and having a seating portion resting against the top of the shaft and a shank extending into the shaft and resting against its walls, and another of the threaded elements extending through the arm and shaft and threaded into the insert.

7. A base for a utility standard, comprised of a transformer section, a shoe section, said shoe section positioned above and on the transformer section, and threaded means for securing the sections together, said transformer section having side walls and lugs extending inwardly from adjacent the upper edges of the side walls, and the shoe section having material adjacent the lugs in the transformer section and a centrally disposed shouldered well for supporting a utility shaft and the threaded means extending through the lugs of the transformer section and into the material of the shoe sections and securing them together.

8. A base, as defined in claim 7, and in addition having an opening in one of its transformer section walls and a closure door therefor.

9. A base, as defined in claim 7, and in addition one of its transformer section walls being defined by an opening therein, a closure door therefor, and a securing means for said door, said securing means having a stud-like catch at the upper part of the opening and separable hinging elements rotatably seated together partly on said transformer section and partly on the lower end of the door, a plate and screw, said plate being positioned interiorly of and on the door and being of such height that when close to the door, its upper portion rests against and in back of the catch, preventing the door from opening, and said screw extending through the door and threadedly engaging the upper portion of the plate and terminating behind the plate in an upset end to prevent its disengagement therefrom, and a stop means partially on said door and partially on the lower portion of the plate functioning to limit the rotation of the plate about the screw to less than a complete rotation, whereby the continued rotation of the screw causes the upper end of the plate to retreat and disengage the catch, so that the upper end of the door can be pulled forward disengaging it from the section walls and the door can then be lifted upward and forward from the opening.

10. A utility standard, comprised of a hollow base, a hollow shaft, a hollow arm and means for securing said shaft to the base, and means for securing said shaft and arm together, said shaft having a cross-sectional shape comprised of consecutive convex, concave, convex, and concave sections, said base having a transformer section, a shoe section and threaded means for securing the transformer and shoe sections together, said shoe section resting on said transformer section and being secured thereto by the threaded means, said transformer section having side walls and lugs extending inwardly from adjacent the upper edges of the side walls and the shoe section having material adjacent the lugs in the transformer section and a centrally disposed shouldered well of a contour similar to and able to snugly seat the end of the shaft and said threaded means extending through the lugs of the transformer section and into the material of the shoe section and securing said sections together, said arm having an arcuate cross section suitable for resting in one of the concave sections of the shaft, and said arm being positioned nested with one of its ends intermediate the ends of the shaft, and said means for securing the shaft and arm together being a bracket and screw positioned at the lower end of the arm and intermediate the end of the shaft and a screw and saddle being positioned at the end of the shaft and intermediate the ends of the arm, said bracket being L shaped and its upstanding portion being a seat for the arm end and its extending portion resting partly within the shaft and partly outside the shaft and both the inwardly and outwardly extending parts in close contact with the shaft, and the screw securing the outward part to the shaft and the saddle having a sectional contour of such an arcuate nature that it fits about the arm and being positioned thereabout at the end of the shaft and the screw exending through the saddle, arm and into the shaft whereby the base, shaft and arm are all secured together.

11. A utility box support, securing a utility box to a shaft having an alternate consecutive convex concave arcuate shaped contour, comprised of a fixed jaw, a movable jaw and holding screws, said fixed jaw having a front face against which the box can rest, a rear arcuate face shaped to the convex contour of the shaft, an end portion having a serrated concave face similar but opposite to the concave shaped section of the shaft and an opposite end portion having a shouldered seat, one of said screws threaded through the fixed jaw and against the shaft and functioning thereagainst to push the serrated face into tight contact with the shaft and said movable jaw having a seating portion resting in the seat of the fixed jaw, an extending portion and an inwardly extending portion having a serrated concave face similar but opposite to the concave shaped section of the shaft and a hole through the seating portion of the fixed jaw and a threaded hole coaxial therewith through the movable jaw and a screw resting in the hole, screwed through the movable jaw and its end resting in compression against the shaft to force the serrated face of the movable jaw against the shaft.

12. A utility standard, as defined in claim 10, and having in addition thereto a utility box support comprised of a fixed jaw and a movable jaw and screw means, said fixed jaw having faces contoured and opposing the concave and convex faces of the shaft and part of the screw means screwed through the fixed jaw and resting in compression against the convex face of the shaft and the movable jaw having a face contoured and opposing the concave face of the shaft and a seating portion resting upon and against the fixed jaw and part of the screw means extending through the fixed jaw and threaded through the movable jaw with its end resting in compression against the convex face of the shaft to force the concave face of the fixed jaw into intimate contact with the shaft.

13. A utility standard, as defined in claim 10, and having in addition at the upper end of its shaft a traffic directional signal box of service indicator signals for police and fire, said box being comprised of a base plate, upstanding sides having windows therein and a cover therefor, and screw means extending through and securing the base to the end of the shaft.

14. A hollow shaft having a plurality of opposite convex sections and a plurality of concave sections, at least one hollow arm having a form substantially the same as the concave section and nesting therein so as to conceal a substantial area of said arm, a base to support said hollow shaft, and a utility box for police calls and fire alarms detachably secured to said shaft.

15. A utility standard, comprised of a hollow shaft and at least one hollow arm, and securing means retaining the shaft and arm in rigid fixed relationship, said shaft having a cross-sectional shape formed of a plurality of convex and concave arcuate cross-sections, and said arm having a cross-section opposite and corresponding to the concave section of the shaft, and secured thereto by means of said securing means, said configuration of the shaft thereby permitting the arm to be adjusted both in height and in its rotational relationship with the shaft, and a base for said hollow shaft.

16. A means for securing a hollow arm to a hollow shaft, comprised of a bracket, an insert, and threaded elements, one of said threaded elements securing said bracket to said shaft, said bracket being positioned at the

lower end of the arm, the shaft at the position of the bracket being defined by an opening therein, said bracket having an upwardly extending portion projecting into and supporting the arm and an angled portion extending into the opening in the shaft, and the insert being positioned at the upper end of the shaft and having a seating portion resting against the top of the shaft and a shank extending into the shaft and resting against its walls the other of said threaded elements securing the arm to the insert.

17. A utility standard comprising a shaft and a base for said shaft, said base in turn comprising a transformer section and a shoe section, said shoe section positioned above and on the transformer section, and threaded means for securing the sections together, said transformer section having side walls and lugs extending inwardly from adjacent the upper edges of the side walls, and the shoe section having material adjacent the lugs in the transformer section and a centrally disposed shouldered well supporting said shaft, and threaded means extending through the lugs of the transformer section and into the material of the shoe sections whereby to secure the transformer section and the shoe section together, and an opening in one of the walls of the transformer section, and a closure door therefor.

18. A utility standard comprising a hollow base, a hollow shaft, a hollow arm, and means for securing said shaft to the base, and means for securing said shaft and arm together, said shaft having a cross-sectional shape comprised of consecutive convex, concave, convex, and concave sections, said base having a transformer section, a shoe section and threaded means for securing the transformer and shoe sections together, said shoe section resting on said transformer section and being secured thereto by the threaded means, said transformer section having side walls and lugs extending inwardly from adjacent the upper edges of the side walls and the shoe section having material adjacent the lugs in the transformer section and a centrally disposed shouldered well of a contour similar to and snugly seating the end of the shaft, said arm having an arcuate cross section suitable for resting in one of the concave sections of the shaft, and said arm being nested with one of its ends intermediate the ends of the shaft, and said means for securing the shaft and arm together being a bracket and screw positioned at the lower end of the arm and intermediate the end of the shaft and a screw and saddle being positioned at the end of the shaft and intermediate the ends of the arm, said bracket being L shaped and its upstanding portion being a seat for the arm end.

19. A utility standard comprising a convex and concave shaft and a utility box support, means for securing said utility box support to said shaft having alternating consecutive convex and concave arcuate shaped contour, comprised of a fixed jaw, a movable jaw and holding screws, said fixed jaw having a front face against which the box can rest, a rear arcuate face shaped to the convex contour of the shaft, an end portion having a serrated concave face similar but opposite to the concave shaped section of the shaft and an opposite end portion having a shouldered seat, one of said screws threaded through the fixed jaw and against the shaft and functioning thereagainst to push the serrated face into tight contact with the shaft and said movable jaw having a seating portion resting in the seat of the fixed jaw, an extending portion and an inwardly extending portion having a serrated concave face similar but opposite to the concave shaped section of the shaft and a hole through the seating portion of the fixed jaw and a threaded hole coaxial therewith through the movable jaw and a screw resting in the hole, screwed through the movable jaw and its end resting in compression against the shaft to force the serrated face of the movable jaw against the shaft.

20. A utility standard, as defined in claim 19, and having in addition at the upper end of its shaft a traffic directional signal box of service indicator signals for police and fire, said box being comprised of a base plate, upstanding sides having windows therein and a cover therefor, and screw means extending through and securing the base to the end of the shaft.

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