Aug. 11, 1925. 1,549,428

C. C. BARRICK

LAMP STANDARD

Filed Aug. 1, 1924 2 Sheets-Sheet 1

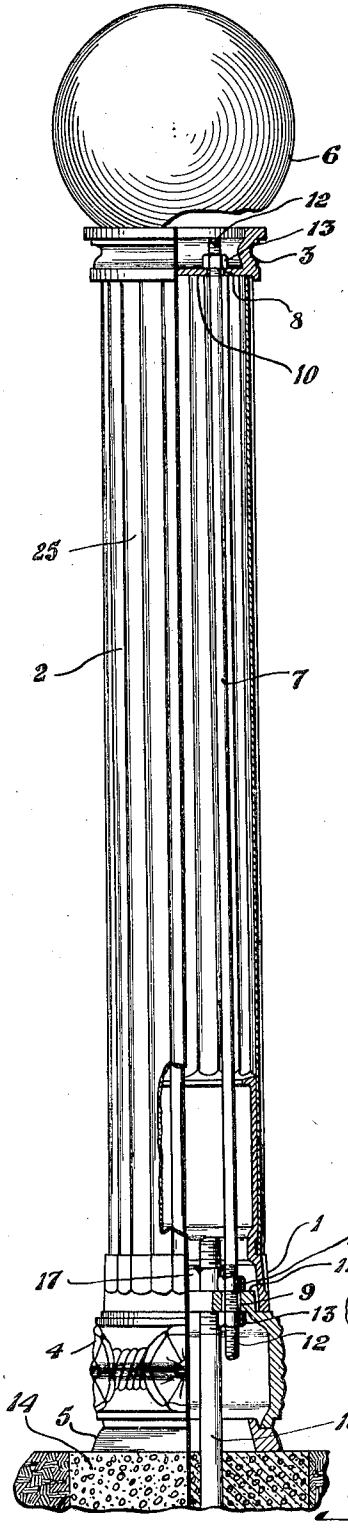


Fig. 1.

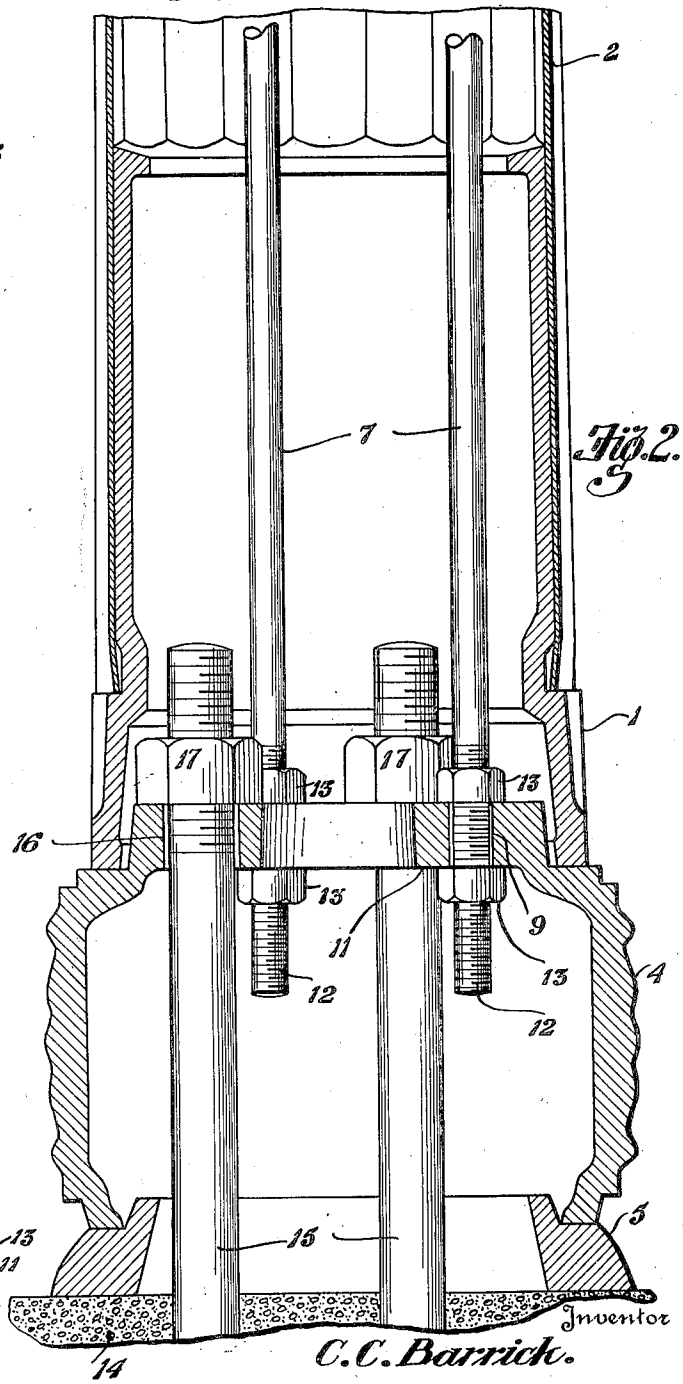


Fig. 2.

Inventor

C. C. Barrick.

By Frease and Bond

Attorneys

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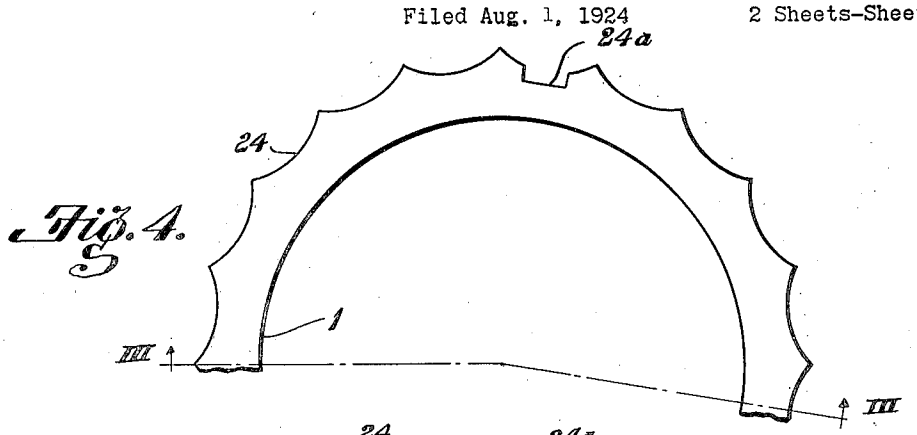


Fig. 4.

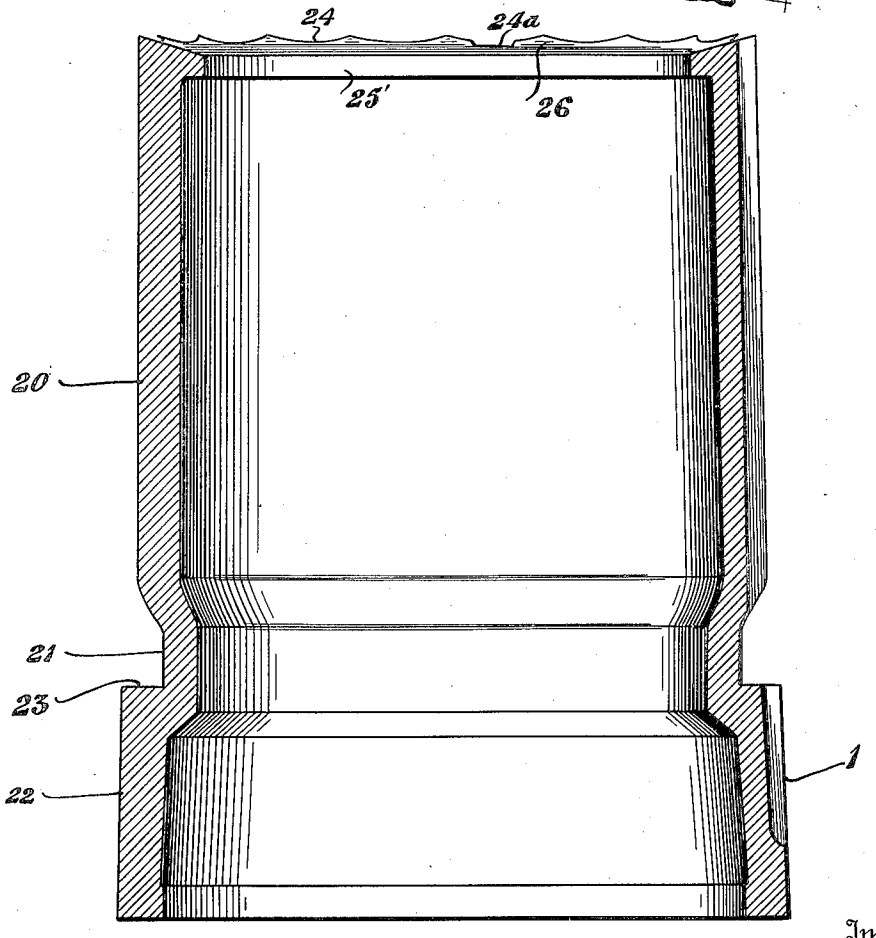


Fig. 3.

Inventor
C. C. Barrick.

By Frease and Bond
Attorneys

Patented Aug. 11, 1925. 1,549,428

UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BARRICK, OF CANTON, OHIO, ASSIGNOR TO THE UNION METAL MANUFACTURING COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO.

LAMP STANDARD.

Application filed August 1, 1924. Serial No. 729,488.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BARRICK, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Lamp Standards, of which the following is a specification.

The invention relates to sheet metal columns, such as are used for lamp standards or the like, preferably fluted, comprising bases, shafts, and capitals; and the object of the improvement is to provide a column having a shaft reinforcing base, for protecting the lower portion of the shaft from damage by externally applied blows such as would be caused by an automobile colliding with the column; for protecting the lower portion of the shaft against corrosion; and for making a strong joint between the shaft and the base.

It has been found in the past that the failure of sheet metal columns usually occurs at the lower end of the shaft, and may be caused either by physical or chemical action. When the column is struck externally, as by a colliding automobile, the shaft buckles at or near the base; and since the shafts are almost always fluted, such a buckling causes a stretching out of the flutes and a consequent enlargement of the circumference of the shaft which may completely destroy the joint between the shaft and the base.

In certain regions the atmosphere carries acids which constitute a part of the condensation which trickles down the flutes on the interior of the columns in periods of dampness or changes of temperature. It is customary to provide a transformer in the lower portion of lamp standards of this general character, and these transformers heat up, raising the temperature within the standard and causing dampness therein. In the old type of column, the acids in the moist atmosphere collected at or near the joint between the shaft and the base, causing a corrosion of the lower end of the shaft which resulted in a partial destruction thereof.

In manufacturing the old type of column, it has been found somewhat difficult to secure a strong joint between the shaft and the base.

All of these difficulties are overcome by the present invention which provides a column having a shaft reinforcing base including a longitudinal body extended a substantial distance into the lower end of the shaft, the external contour thereof snugly fitting the internal contour of the shaft; asphalt or other suitable binding agent being employed to cement the shaft to the reinforcing base, permanently sealing the joint between the shaft and base and preventing moisture from passing between the members.

The invention is illustrated in the accompanying drawings, forming part hereof, in which—

Figure 1 is a side elevation of a lamp standard, portions of the capital, shaft, shaft reinforcing base, and additional ornamental bases, being shown in longitudinal cross-section;

Fig. 2, an enlarged, fragmentary, longitudinal section of the lower portion of the standard;

Fig. 3, a still further enlarged section of the shaft reinforcing base, as on line III—III, Fig. 4; and

Fig. 4, a fragmentary top plan view of the same.

Similar numerals refer to similar parts throughout the drawings.

The standard may include the shaft reinforcing base 1, a shaft 2, and capital 3; and as shown in Figs. 1 and 2, the standard may be provided with additional ornamental and elevating base sections 4 and 5. The column shown in Fig. 1 is used as a support for the lamp 6, but the column may be used for any other desired purpose.

A preferred means of securing together the shaft reinforcing base 1, the shaft 2, the capital 3, and ornamental base 4 are the tie rods 7 which pass through apertures 8 and 9, in webs 10 and 11, respectively, of the capital 3 and ornamental base 4, the tie rods being provided with end threads 12 which cooperate with nuts 13 to secure the parts together.

Similarly, a preferred means of securing the ornamental bases 4 and 5 to the concrete foundation 14 is by the use of base bolts 15 which are vertically embedded in the foundation, and pass through the superposed ornamental bases 4 and 5, and through the apertures 16 in the web 11 of the top ornamental base 4, and are provided with nuts 17.

Thus the base bolts 15 and nuts 17 secure the ornamental bases 4 and 5 to the foundation 14; while the tie rods 7 secure the shaft reinforcing base 1, shaft 2, and capital 3 to

the ornamental base 4, thereby in effect securing the whole standard to the foundation 14.

The advantage of such construction, heretofore known, is the enabling of the installation of certain members of the column at one time, and the installation of the remaining members at another. Thus when the column is used as a lamp support, the base bolts may be embedded in the concrete foundation 14 at one time, later the base sections may be bolted to the foundation, and then after the gas piping or electric wiring (not shown) has been installed, the shaft, capital, and lamp may be secured to the base portions.

It is to be understood, however, that while tie rods and base bolts are desirable for columns used as lamp standards, a column comprising a capital, a sheet metal shaft, and a shaft reinforcing base without tie rods may be used as a load carrying or decorative member and all the advantages of the shaft reinforcing base may be attained.

These advantages include the provision of means for protecting the lower portions of the shaft from damage by externally applied blows such as would be caused by an automobile colliding with the column, means for protecting the lower portion of the shaft against corrosion, and means for securing a strong, drainable joint between the shaft and the reinforcing base, and are attained as follows.

The shaft reinforcing base 1 includes a longitudinal body 20, adapted to extend a substantial distance into the lower end of the shaft 2 and fit snugly therein, a neck 21 to receive the sprung-in lower end of the shaft, and a flange 22 having the shaft bearing face 23 for the shaft to rest upon. As shown, the end of the shaft is sprung-in slightly to fit snugly into the neck 21 and rest upon the face 23.

Most shafts are preferably fluted, and for these shafts it is necessary to form the outside of the longitudinal body 20 as shown in Fig. 4 with flutes 24 which fit into the flutes 25 of the shaft 2. The longitudinal recess 24^a receives the longitudinal seam which joins the shaft together.

The nesting or telescoping of the fluted body in the lower portion of the fluted shaft, not only reinforces the shaft and prevents buckling of the shaft, but also protects the ribs of the flutes from being damaged. The length of the body 20 is so proportioned as to extend into the shaft 2 as far as it is determined that there be a likelihood of external blows.

As shown, it is also preferable that the shaft reinforcing base shall be tubular, and shall be provided at its upper end with the internal, annular rib 25′ having the downward sloping upper face 26. Thus when the joint between the face 26 and the inside of the shaft 2 is sealed with a waterproof cement, such as asphalt or other like material, any moisture which trickles down the inside of the shaft will drop over the edge of rib 25 down to the foundation and will do no corrosive damage to the lower portion of the shaft.

I claim:—

1. A column including a fluted sheet metal shaft and a shaft reinforcing base, the base having a longitudinal body extending a substantial distance into the shaft, the outside contour of the body fitting the inside contour of the shaft.

2. A column including a hollow fluted shaft and a shaft reinforcing base, the base having a longitudinal body extending a substantial distance into the shaft, the outside contour of the body fitting the inside contour of the shaft.

3. A column including a shaft reinforcing base, and a fluted sheet metal shaft, the base having a fluted longitudinal body extending a substantial distance into the shaft and fitting therein, and having a flange face upon which the shaft rests.

4. A column including a shaft reinforcing base, and a sheet metal shaft, the base having a longitudinal body extending a substantial distance into the shaft and fitting therein, and having a flange face upon which the shaft rests, and a binder in the joint between the shaft and reinforcing base.

5. A column including a shaft reinforcing base, and a sheet metal shaft, the base having a longitudinal body extending a substantial distance into the shaft and fitting therein, and having a flange face upon which the shaft rests, the shaft having a sprung-in lower end, and the base having a reduced neck to receive the sprung-in end.

6. A column including a shaft reinforcing base, and a sheet metal shaft, the base having a longitudinal body extending a substantial distance into the shaft and fitting therein, there being a downward sloping annular rib on the upper end of the body for draining the shaft.

7. A column including a shaft reinforcing base, and a sheet metal shaft, the base having a longitudinal body extending a substantial distance into the shaft and fitting therein, there being a downward sloping surface on the upper end of the body for draining the shaft.

8. A column including a shaft reinforcing base, a shaft, and a capital, the base having a longitudinal body extending a substantial distance into the shaft and fitting therein, and means for fastening the base, the shaft, and the capital together.

9. A column including a fluted sheet metal shaft and a shaft reinforcing base extending into the lower end of the shaft, the joint

between the shaft and base being filled with asphalt for cementing the shaft and base together.

10. A column including a fluted sheet metal shaft and a shaft reinforcing base extending into the lower end of the shaft, the joint between the shaft and the base being filled with a binder for cementing the shaft and base together.

11. A column including a hollow shaft, a supporting base having an annular shoulder, a reinforcing base having an ornamental lower portion resting upon the shoulder, a reduced neck above the ornamental portion and a longitudinal portion arranged to extend a substantial distance into the lower end portion of the shaft, the lower end of the shaft being sprung in around said reduced neck.

In testimony that I claim the above I have hereunto subscribed my name.

CHRISTOPHER C. BARRICK.