

1,023,119.

Patented Apr. 16, 1912.

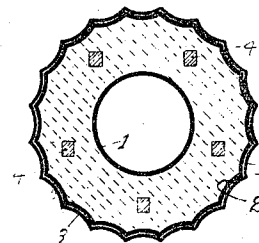
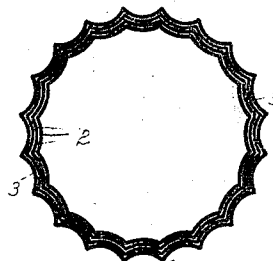
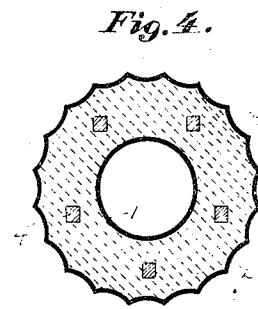
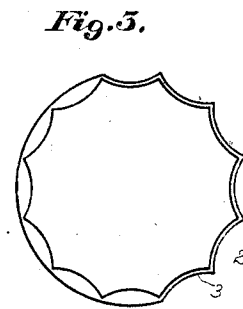
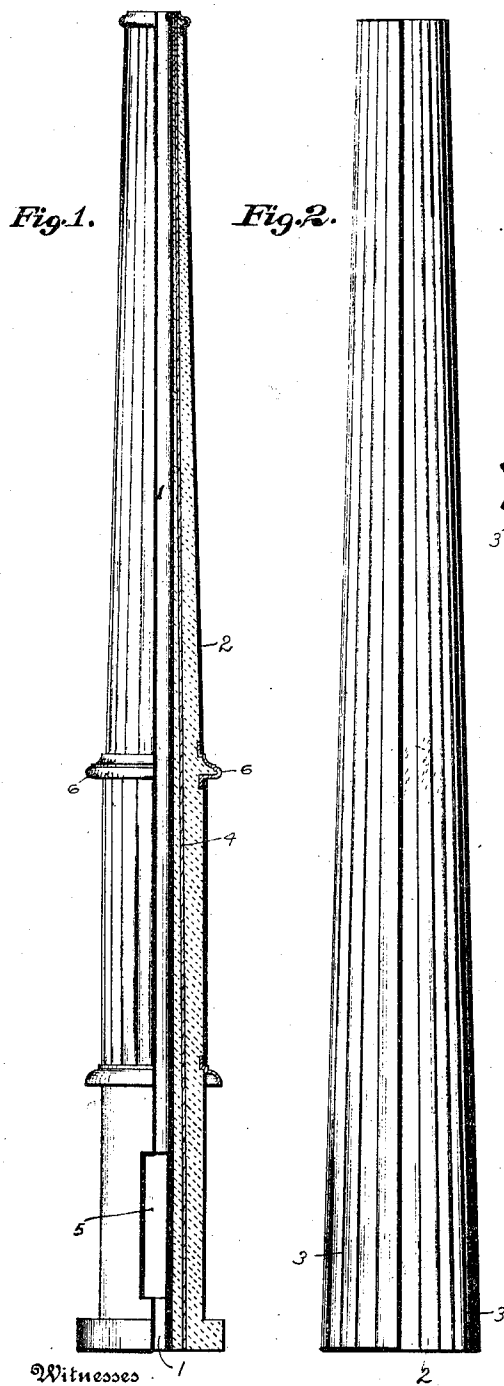
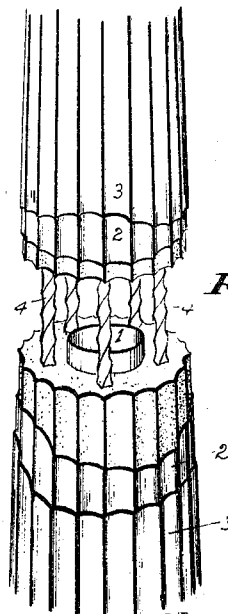


Fig. 5.

Fig. 5.



Witnesses
Harry O. Rastetter
Sylvia Brown.

By

Inventor
Christopher C. Barrick

Bond & Miller
Attorneys

UNITED STATES PATENT OFFICE.

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

COLUMN.

1,023,119.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed January 22, 1908. Serial No. 412,169.

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 Columns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a view of the column showing a portion of the column in longitudinal section and the column consisting of a number of sections connected together. Fig. 2 is a side elevation showing portion removed. Fig. 3 is an end view of the column illustrating a portion of the outer or projecting section partially stretched upon the inner section. Fig. 4 is a horizontal section showing inner and outer concentric tubes, concrete being interposed between said tubes and reinforcing bars embedded in the concrete. Fig. 5 is a similar view, except the outer or protecting section is formed of two thicknesses. Fig. 6 is an end view showing a series of tubes assembled to form a column, and Fig. 7 is a perspective view of my improved column parts being broken away.

The present invention has relation to sheet metal columns or poles such as are used in buildings of various kinds, and for telephone or telegraph poles or the like.

The object of the present invention is to provide a column or pole designed for durability and strength and to produce a structure of such material, and combination of materials, that the objects above pointed out can be brought about at much less expense than heretofore.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents an inner sheet metal tube or column section, and 2 represents an outer sheet metal column section, the sections being concentrically arranged with reference to each other, and are spaced apart as illustrated in Fig. 4. Upon the outer sheet metal column section or member 2, is located a reinforcing or covering section 3, which forms the outer exposed surface when the column or

pole is formed from two or more thicknesses. The reinforcing or covering section may be formed of copper or other durable metal that will not readily become disintegrated by the action of the elements. In order to provide what might be termed a column having practically an indestructible exposed surface, and at the same time the body portion thereof formed of material that will have the desired strength to support an object designed to be carried, the outer or copper section 3, is formed of thin metal for the purpose of reducing the expense. However, to produce a column having the requisite strength to withstand unusual weights, a plurality of sheet metal sections will be employed, as clearly shown in Fig. 6.

In Fig. 3 the outer or covering section is shown partially pressed upon the supporting section 2, which supporting section is provided with any desired number of convex-concave portions or flutes spaced by outwardly extended ribs, and the outer or exposed section is pressed into the position illustrated in Figs. 5 and 6. In order to produce what may be termed an integral outer tube or section, the section 2, which is the supporting section, is formed of sufficient strength to resist the pressure necessary to stretch the outer or protecting section upon said supporting section. In some instances it may be desirable to construct a column of a series of concentric supporting tubes or sections 2, and locate the protecting section 3 upon the outer surface of the outer one of the series as illustrated in Fig. 6. This however is a question of judgment as the only object to be accomplished is to provide different degrees of strength by the use of sheet metal formed of sufficient gage, to form the sections as above described.

For the purpose of distributing the strain, the space between the inner tube 1 and the adjacent outer or supporting section 2, may be filled with cement or like material and in the cement is embedded a series of supporting bars 4, which may be rectangular in cross section and twisted as illustrated, in Fig. 7, thereby better seating the cement or like material upon and in contact with the reinforcing bars.

It may be necessary in some instances to have access to the interior of the structure,

and in order to provide for this, an opening indicated at 5, may be formed in the lower portion or section as illustrated in Fig. 1, and if in the event columns or structure of considerable length are required, the structure may be formed of sections coupled together by suitable connections, such as indicated at 6. These couplings may be of any desired construction and form no specific part in the present invention.

What may be termed the base section 2, is provided with flutes and ribs, as previously described, and when the outer section 3, is fitted over it, the sheet metal is pressed into and snugly fits in the flutes and over the ribs. The metal of the outer section is therefore stretched laterally and is under tension between the ribs of the inner section, which tends to retain the metal in position and causes it to fit snugly the inner section.

In shafts of small diameters, say up to ten or twelve inches or where a softer metal is to be used for the outer covering I prefer to form the inner fluted sections first and then place a tubular section over the said fluted section and press the metal thereof over each of the ribs of the said inner fluted section and thereby form ribs and flutes that correspond with the ribs and flutes on the inner section. In the larger diameters or even in the smaller where the two sections are of the same density I prefer to place the two tubes together and flute them simultaneously.

What I claim is:—

1. As an article of manufacture, a sheet metal column consisting of an inner tubular column section formed with a plurality of longitudinally disposed flutes and ribs, an outer tubular section having the metal thereof pressed into and snugly seated in the flutes and over the ribs of the inner section, the pressed metal of the outer tubular section stretching

laterally under tension between the ribs of the inner section and fitting snugly the outer surface of said inner section.

2. As an article of manufacture, a sheet metal column consisting of an inner column section formed with a plurality of longitudinally disposed flutes and ribs, and an outer section of metal stretching laterally under tension between the longitudinal ribs and fitting snugly the outer surface of said inner section.

3. As an article of manufacture, a sheet metal column consisting of an inner column section formed with a plurality of longitudinally disposed flutes and ribs, and an outer covering of metal of greater malleability than the metal of the inner section, and stretching laterally and under tension between the longitudinal ribs and fitting snugly the surface of said inner section.

4. An improved article of manufacture consisting of a tapered hollow column formed of two sheets of fluted and ribbed metal, the ribs of the inner sheet of metal serving as a base between which the metal of the outer sheet stretches and is held under tension, the ribs and flutes of the column tapering from their bottom or lower ends toward their top ends.

5. As an article of manufacture, a sheet metal column consisting of an inner column section formed with a plurality of longitudinally disposed flutes and ribs, and an outer section of metal stretching laterally under tension between the longitudinal ribs and fitting snugly into and over the outer surface of said inner section.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

CHRISTOPHER C. BARRICK.

Witnesses:

WM. H. MILLER,
SYLVIA BORON.