Sept. 13, 1932. H. C. PFAFF 1,877,583

METHOD OF MAKING COLUMNS

Filed Feb. 2, 1931

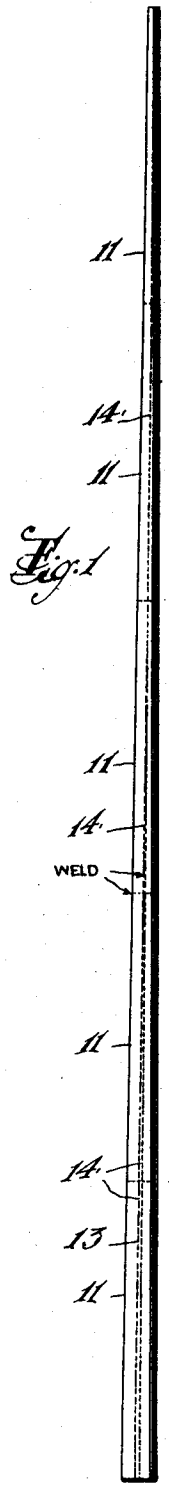


Fig. 1

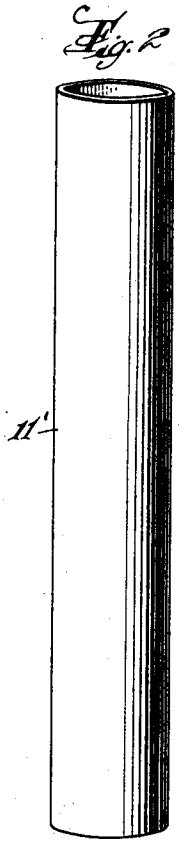


Fig. 2

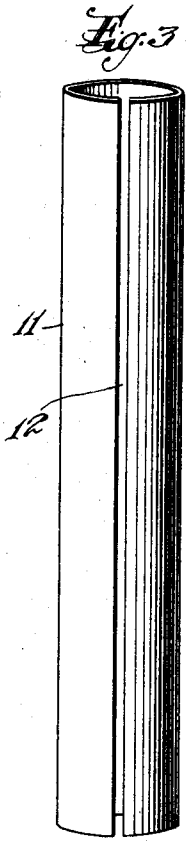


Fig. 3

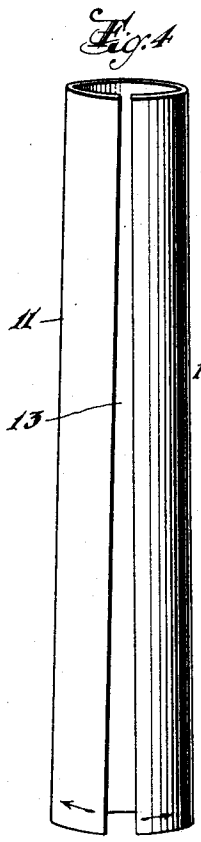


Fig. 4

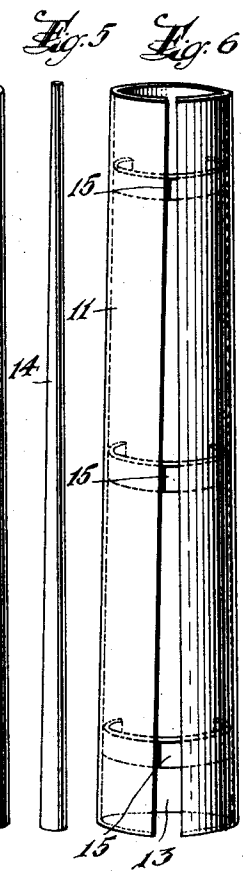


Fig. 5 Fig. 6

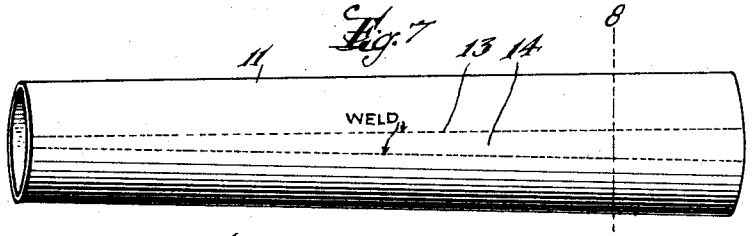


Fig. 7

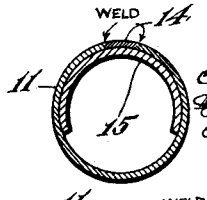


Fig. 8



Fig. 9

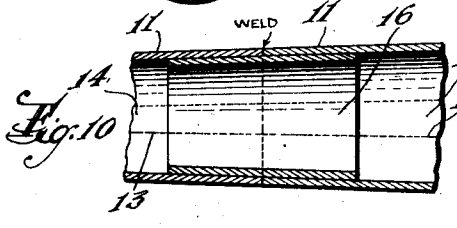


Fig. 10

INVENTOR
Henry C. Pfaff
BY
Frank C. Fischer
ATTORNEY

Patented Sept. 13, 1932 1,877,583

UNITED STATES PATENT OFFICE

HENRY C. PFAFF, OF NEWARK, NEW JERSEY, ASSIGNOR TO PFAFF AND KENDALL, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY

METHOD OF MAKING COLUMNS

Application filed February 2, 1931. Serial No. 512,775.

This invention relates to a method of making tapered columns adapted for use as flag poles or the like.

Heretofore, it has been the practice to make tapered columns of the type herein described, by cutting elongated V-shaped excisions in tubular sections and swaging the sections to bring the edges of the excisions together, after which the edges are welded together and the sections mounted successively one upon the other. While satisfactory columns are obtained by this manner, the method is objectionable in that the V-shaped excisions necessitate considerable waste of metal.

It is an object of this invention to provide a method of making columns having either a straight taper or an entasis, without necessitating the wasting of material.

A further object is the provision of a method of making a tapered column in sections which may be conveniently assembled without the use of rivets or bolts.

These and other advantageous objects, which will later appear, are accomplished by the simple and practical construction and arrangement of parts hereinafter described and exhibited in the accompanying drawing, forming part hereof, and in which:

Figure 1 shows a column constructed in accordance with the invention.

Figure 2 represents a perspective view of a section of tubing of a standard size and shape.

Figure 3 represents a perspective view of the section of tubing after being subjected to the first step in the method.

Figure 4 represents the section of tubing after the second step.

Figure 5 represents a perspective view of an insert used in connection with the section of tubing.

Figure 6 represents a view of the section of tubing after the third step.

Figure 7 represents a view of the finished section with the desired taper.

Figure 8 represents a sectional view taken on line 8—8 of Figure 7.

Figure 9 represents a perspective view of the binding strap used to hold the tapered tubing in position.

Figure 10 represents a sectional view showing the method of joining two sections of tapered tubing.

Referring to the drawing, in Figure 1 is shown a column, such as a flag pole, formed from a plurality of tapered sections 11. Each section 11 is made in the same manner, with the exception, of course, that the diameter of the sections gradually decrease as the top of the column is approached.

In making a section, a standard section 11′ of cylindrical tubing, as shown in Figure 2, is given a longitudinal slit 12, which is parallel to the axis of the tubing, as shown in Figure 3. The longitudinal slit 12 may extend the entire length of the section 11′ or may terminate a short distance of one end thereof. Then, by suitable means such as a conical wedge, the lower end of the section is spread to produce a V-shaped slot 13 as shown in Figure 4. The section is now tapered.

Arcuate supporting bands 15 are welded to the interior of the section, and an elongated triangular plate 14 is inserted in the V-shaped slots, after which the edges of the plate and the section are welded together, the plate being also welded or otherwise united to the bands 15.

To make a column, a plurality of sections are formed in the manner described above, the diameters of the sections gradually decreasing towards the upper end of the column.

The sections are united one to the other by means of a tapered tubular connector 16 welded to the lower section, and over which the upper adjacent section is placed, after which the upper section is welded to the tubular connector 16 and the abutting edges of the sections welded together. (See Figure 10.)

The connectors 16, while providing means for mounting one section on the other, also serve as means for reinforcing the column, as likewise do the supporting bands 15.

From the above description it is seen that there has been provided a convenient and economical method of making tapered metal columns from standard cylindrical tubing. There is no waste of material and the operations are of such a nature that they may be performed more easily and conveniently than

heretofore has been possible in the manufacture of similar columns.

The foregoing disclosure is to be regarded as descriptive and illustrative only, and not as restrictive or limitative of the invention, of which obviously an embodiment may be constructed including many modifications without departing from the general scope herein indicated and denoted in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The method of making a column from a tube which consists in longitudinally slitting the tube, spreading one end of the slitted tube to produce a V-shaped slot, inserting a V-shaped plate in the V-shaped slot, and then uniting the edges of the tube and plate.

2. The method of making a column from a tubular section consisting in longitudinally slitting the section, spreading one end of the section to produce a tapered section having a V-shaped slot, inserting a plurality of annular bands in the section, inserting a plate in the V-shaped slot welding the bands to the section and plate, and welding the edges of the plate and section together.

3. The method of making a column from a tubular section, comprising longitudinally slitting the section, spreading one end of the section to produce a tapered section having a V-shaped slot, inserting a plurality of annular bands in the section, inserting a plate in the V-shaped slot, and welding the bands to the section and to the plate.

This specification signed this 24 day of June, 1931.

HENRY C. PFAFF.