

W. J. J. BOWMAN.

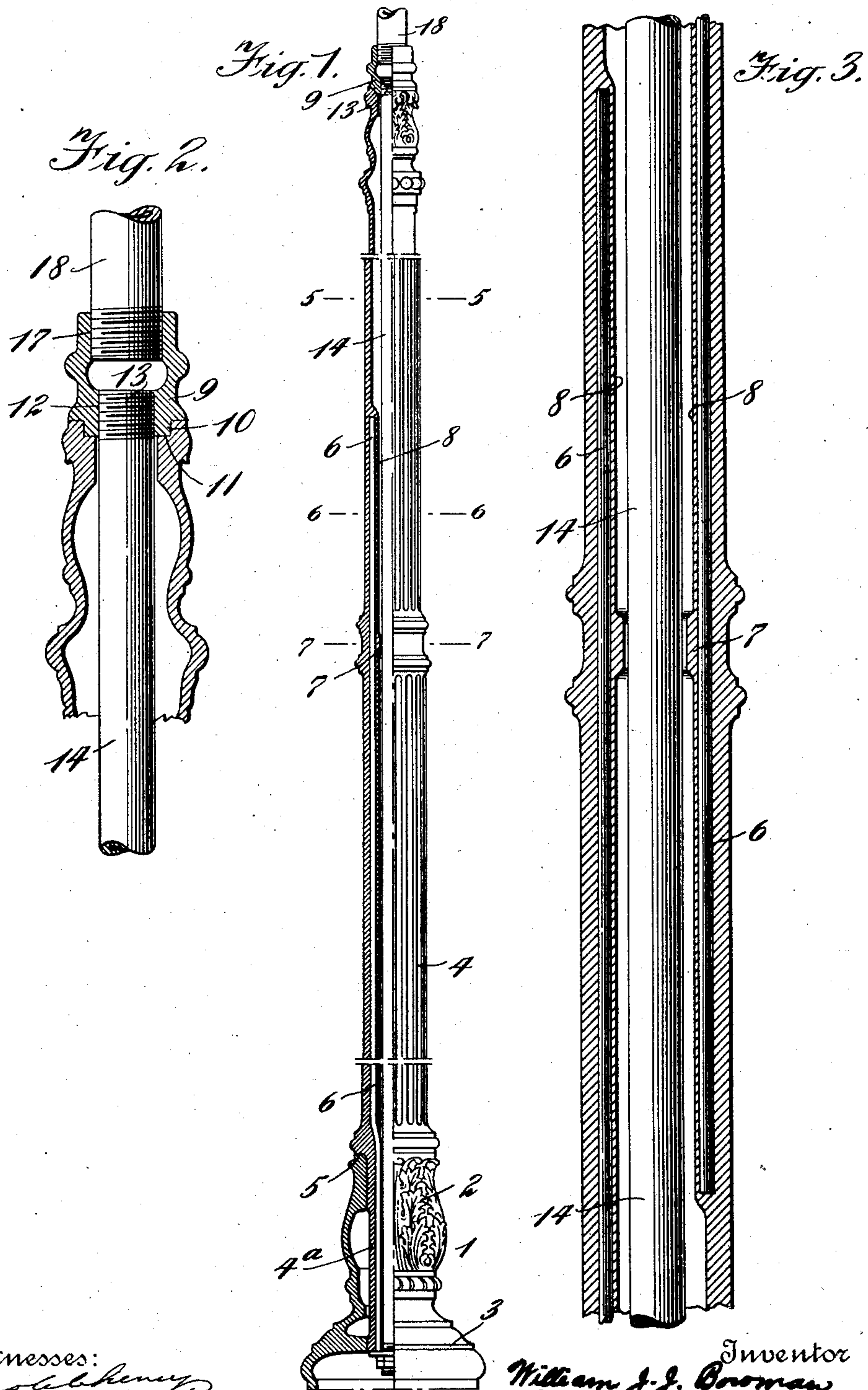
COLUMN OR POST.

APPLICATION FILED JULY 19, 1910.

997,435.

Patented July 11, 1911.

2 SHEETS—SHEET 1.



Witnesses:  
*E. J. Kennedy*  
*C. H. McNamee*

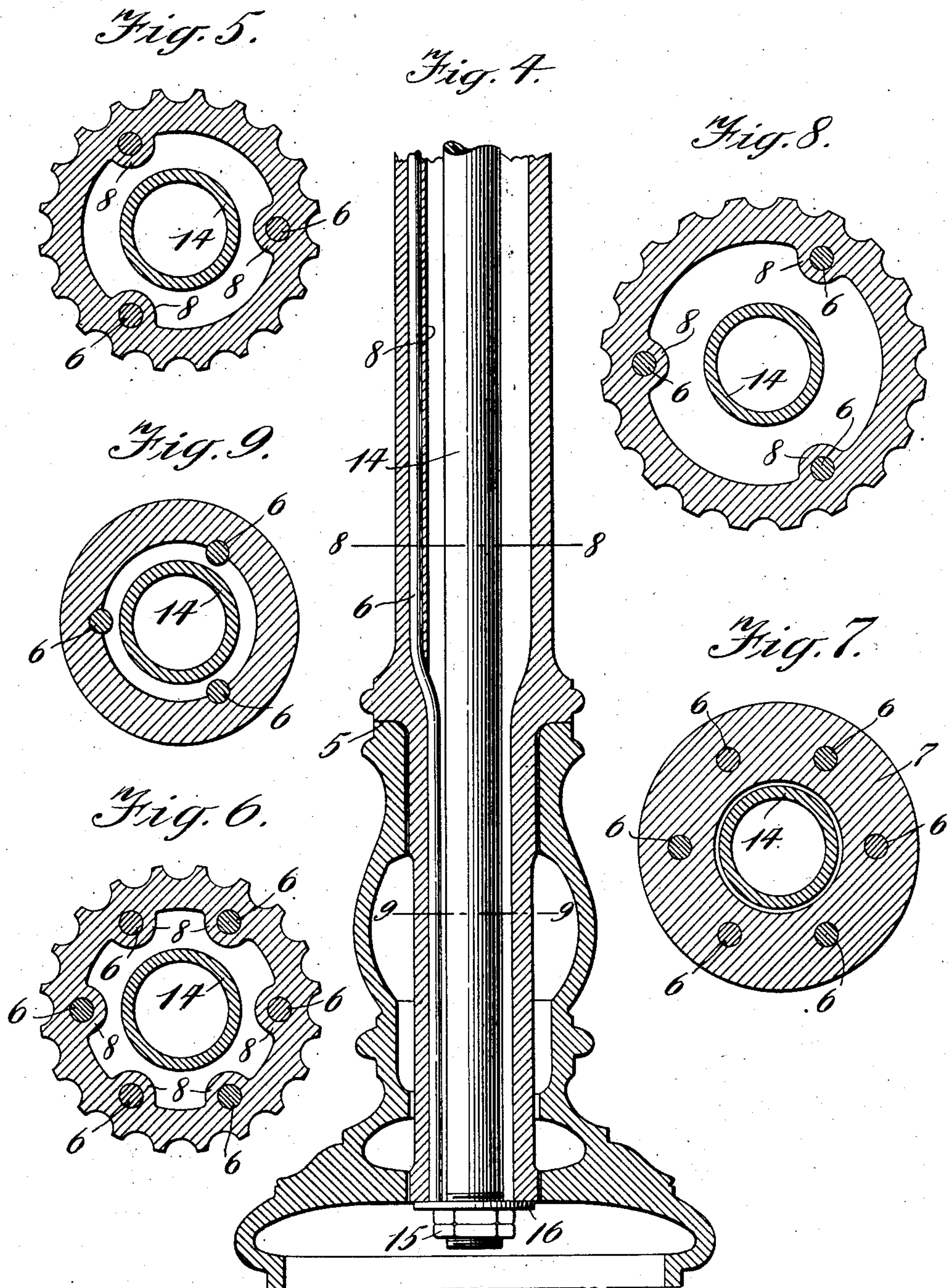
Inventor  
*William J. J. Bowman*  
By his Attorneys *Gifford & Beul*

997,435.

W. J. J. BOWMAN.  
COLUMN OR POST.  
APPLICATION FILED JULY 19, 1910.

Patented July 11, 1911.

2 SHEETS—SHEET 2.



Witnesses:  
*Geo. C. Cheney*  
*C. F. Kiehlman*

Inventor  
*William J. J. Bowman*  
By his Attorneys  
*Hofford & Budd*



# UNITED STATES PATENT OFFICE.

WILLIAM J. J. BOWMAN, OF TRENTON, NEW JERSEY, ASSIGNOR TO THE J. L. MOTT  
IRON WORKS, A CORPORATION OF NEW YORK.

## COLUMN OR POST.

997,435.

Specification of Letters Patent. Patented July 11, 1911.

Application filed July 19, 1910. Serial No. 572,700.

*To all whom it may concern:*

Be it known that I, WILLIAM J. J. BOWMAN, a citizen of the United States, and a resident of Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Columns or Posts, of which the following is a specification.

My invention relates broadly and generally to new and useful improvements in columns or posts, and more particularly of that character or type adapted to be employed as supports for electric or other street lights, and the object is to provide a post for general use but capable of the particular use mentioned which will be of cast metal but so constructed that the structure will be braced or reinforced so as to add to its tensile or breaking strength.

Before proceeding with a detailed description of my invention, I would state that the posts or columns used as lamp posts or as supports for electric lights are usually made of cast metal, such as cast iron, which is brittle and likely to be broken and fractured when subjected to a hard blow, and it has been experienced that many serious accidents have occurred caused by falling parts of broken posts which have been struck by a hard blow, as by a truck or wagon coming in contact therewith, and it is the purpose of the present invention to construct a post which will be maintained erect and intact even when broken or fractured.

A further object is to provide means for tying or securing the several parts of a composite or multi-part post together so that said parts will be rigidly connected.

The invention consists in the improvements to be fully described hereinafter and the novelty of which will be fully pointed out and distinctly claimed.

I have fully and clearly illustrated my invention in the accompanying drawings to be taken as part of the specification and wherein—

Figure 1 is an elevation partly in longitudinal central section of a post or column embodying my invention; Fig. 2 is an enlarged detailed longitudinal section through the upper end portion of the column showing the manner of connecting the cap piece

and internal reinforcing member; Fig. 3 is an enlarged detailed longitudinal section through an intermediate portion of the post or column; Fig. 4 is an enlarged detailed longitudinal section through the base or lower portion of the post or column; Fig. 5 is an enlarged section on the line 5—5 of Fig. 1; Fig. 6 is an enlarged section on the line 6—6 of Fig. 1; Fig. 7 is an enlarged section on the line 7—7 of Fig. 1; Fig. 8 is an enlarged section on the line 8—8 of Fig. 4; Fig. 9 is an enlarged section on the line 9—9 of Fig. 4.

Referring to the drawings, 1 designates the base of a column or post such, for instance, as is used for the support of street lights, said base comprising an upright hollow portion 2, formed at its lower end with a foot 3 adapted to rest upon the ground or other surface upon which the column or post is erected. Seated within the said base 1, is the main or body portion 4 of the column or post, of the desired height and diameter, the lower portion thereof 4<sup>a</sup>, which is located within the said base, being preferably of less diameter than that part which extends above the base, a shoulder 5 being provided on the exterior of the column at the junction of the parts which rests upon the upper end portion of the said base. The column is preferably hollow as shown, and the lower portion thereof is preferably made of less diameter than the main body portion, so that the diameter of the base may be reduced and symmetry of the entire structure attained.

I desire it understood that I do not wish to be limited in any way to the construction or arrangement of the base of the column.

The body portion 4 of the column is preferably formed of cast metal such, for instance, as cast iron which, it is well known, is more or less liable to be broken when subjected to a hard blow, and it is the purpose of my invention to provide means whereby this body portion will be braced and sustained, so that if subjected to a blow sufficient to fracture the same, the broken parts will be held intact and danger from such parts falling upon persons or property will be avoided. I attain this result by casting within the wall of the col-



umn longitudinally extending reinforcing members which preferably will be in the form of wrought iron bars 6, which may be arranged in sets extending respectively from  
 5 each end of the column toward the opposite end thereof, the inner ends of the sets overlapping each other at a point intermediate the ends of the column. These bars are distributed around the wall of the column  
 10 and the inner ends of the bars of one set are preferably so spaced that at the point where they overlap the ends of the bars of the opposite set, said overlapping ends are arranged equidistant between the adjacent  
 15 bars of the opposite set. These overlapping bars serve to additionally brace and reinforce the column at its central portion, and I may, if desired, additionally strengthen the same at this point by casting integral  
 20 therewith an internally projecting annular flange 7, which is preferably located at a point intermediate the overlapping ends of the reinforcing bars 6. Another object in overlapping the bars at the central portion  
 25 of the column is to facilitate the casting of the column in that by having the bars of less length than that of the column it is easier to support the inner ends of the bars within the flask or mold, so as to maintain  
 30 the same straight and in proper parallelism, than would be the case were the bars of the same length of the column.

It will be noted that the lower portion 4<sup>a</sup> of the column which sits in the base 1, is of  
 35 less diameter than the main body portion of the column and that the lower ends of the reinforcing bars which pass through said part 4<sup>a</sup> are only partially embedded within the column, the same being deflected inward  
 40 from the position they assume in the upper portion of the column at a point adjacent the shoulder 5. Upon examination of the Figs. 5, 6 and 8 it will be noted that the reinforcing bars 6 are embedded in ribs 8  
 45 extending longitudinally of the column, said ribs serving to reinforce and add rigidity to the column.

Mounted upon the upper portion of the column 4 is a head piece consisting of a  
 50 sleeve 9 having an annular extension 10, seated within an annular recess 11 in the upper part of the column, said sleeve having an internally threaded aperture 12 to receive the upper threaded end 13 of a tubular bracing member 14 which extends throughout  
 55 the column and base and is connected to the lower part 4<sup>a</sup> of the column by means of a nut or nuts 15 threaded onto the lower end thereof, a washer 16 being interposed between said nuts and the lower end of the member 14. The upper end of the sleeve  
 60 19 is formed with an internally threaded aperture 17 into which is threaded the lower end 18 of the bracket arm which supports the light. The construction of this bracket

being immaterial, I do not show or describe the same completely but merely show the bottom portion, or lower end thereof, threaded into the head piece 9, which I deem sufficient for the purposes of this applica-  
 70 tion. This internal bracing member 14 not only serves to rigidly brace the parts of the column and maintain the same in proper relation, but also serves to connect the parts rigidly together. 75

By the construction shown and described it is apparent that the parts of the column are rigidly braced and reinforced, and that should the post become broken or fractured the reinforcing rods will serve to hold the  
 80 broken parts together.

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

1. A hollow cast metal column or post 85 having ribs extending longitudinally of the inner surface thereof and reinforcing members cast in said ribs.

2. A hollow cast metal column or post having ribs extending longitudinally of the  
 90 inner surface thereof and reinforcing members cast partly in said ribs.

3. A hollow cast metal column or post having an intermediate annular collar therein, and longitudinally extending reinforcing  
 95 members in the post, said members overlapping each other at said collar.

4. A hollow cast metal column or post having longitudinally extending reinforcing members cast therein, parts of said members  
 100 projecting out of the column into the space within the same.

5. A hollow cast metal column or post having longitudinally extending reinforcing members cast therein, parts of said members  
 105 projecting out of the column into the space within the same, and extending longitudinally thereof.

6. A hollow cast metal column or post having longitudinally extending reinforcing  
 110 members cast therein, parts of said members projecting out of the column into the space within the same, and extending longitudinally thereof in contact with the inner surface of said column or post. 115

7. A hollow cast metal column having sets of reinforcing members cast therein, and an intermediate stiffening collar, said sets each extending substantially from one of the ends  
 120 of the post or column toward the opposite end, and overlapping each other at said collar.

8. A hollow cast metal column, consisting of a hollow body portion and a part of less diameter than the body portion, and rein-  
 125 forcing members wholly embedded within the body portion but emerging therefrom and lying in contact with the inner surface of the part of less diameter.

9. A hollow cast metal column or post 130



having inwardly directed projections on the inner surface thereof and reinforcing members held by said projections.

- 5 10. A hollow cast metal column or post having inwardly directed projections on the inner surface thereof and reinforcing members extending longitudinally of the column or post and held by said projections.

In testimony whereof I have signed my name to this specification in the presence of 10 two subscribing witnesses.

WILLIAM J. J. BOWMAN.

Witnesses:

J. SPENCER VOORHEES,

J. T. LANGAN.

---

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

---