

No. 666,146.

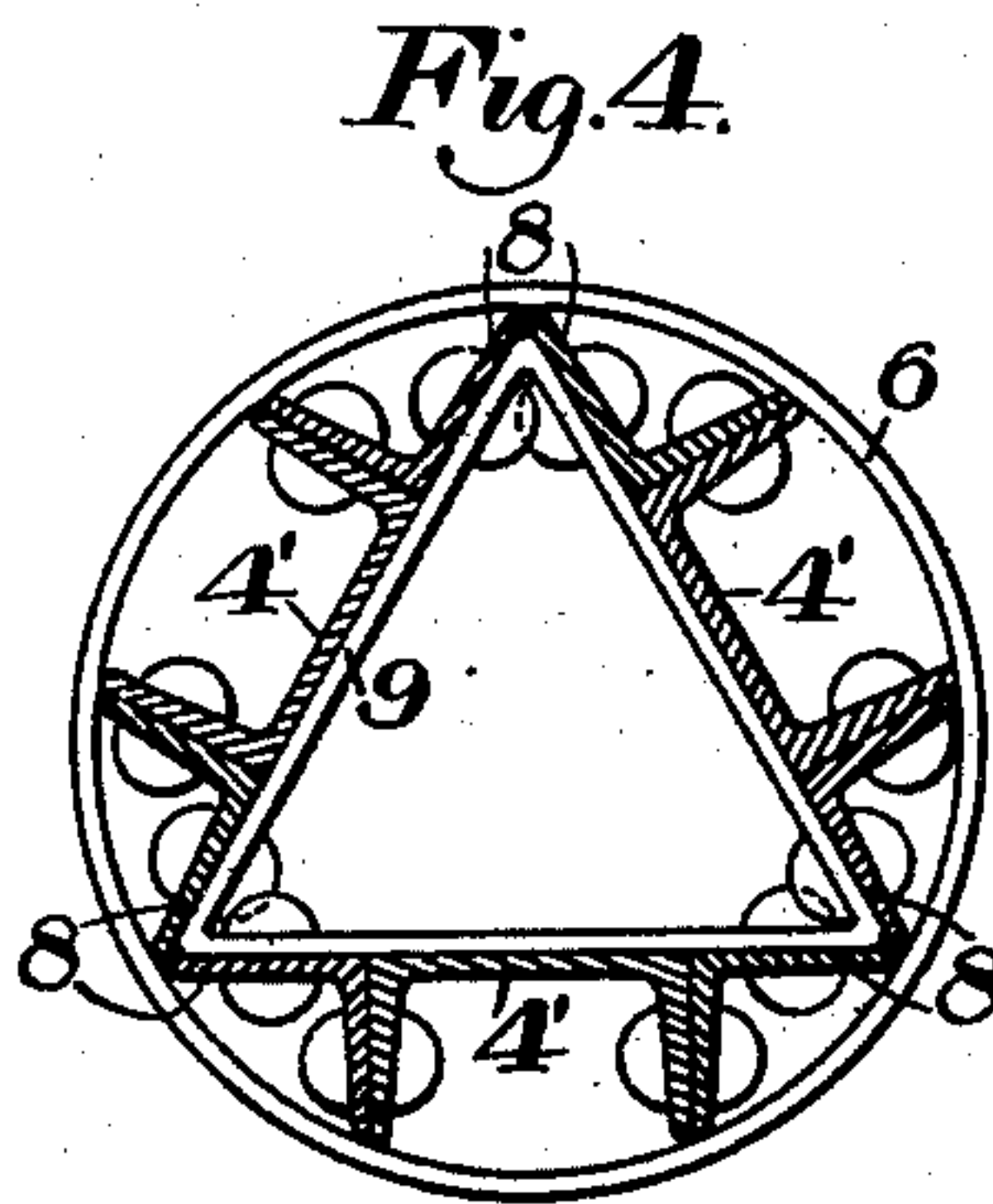
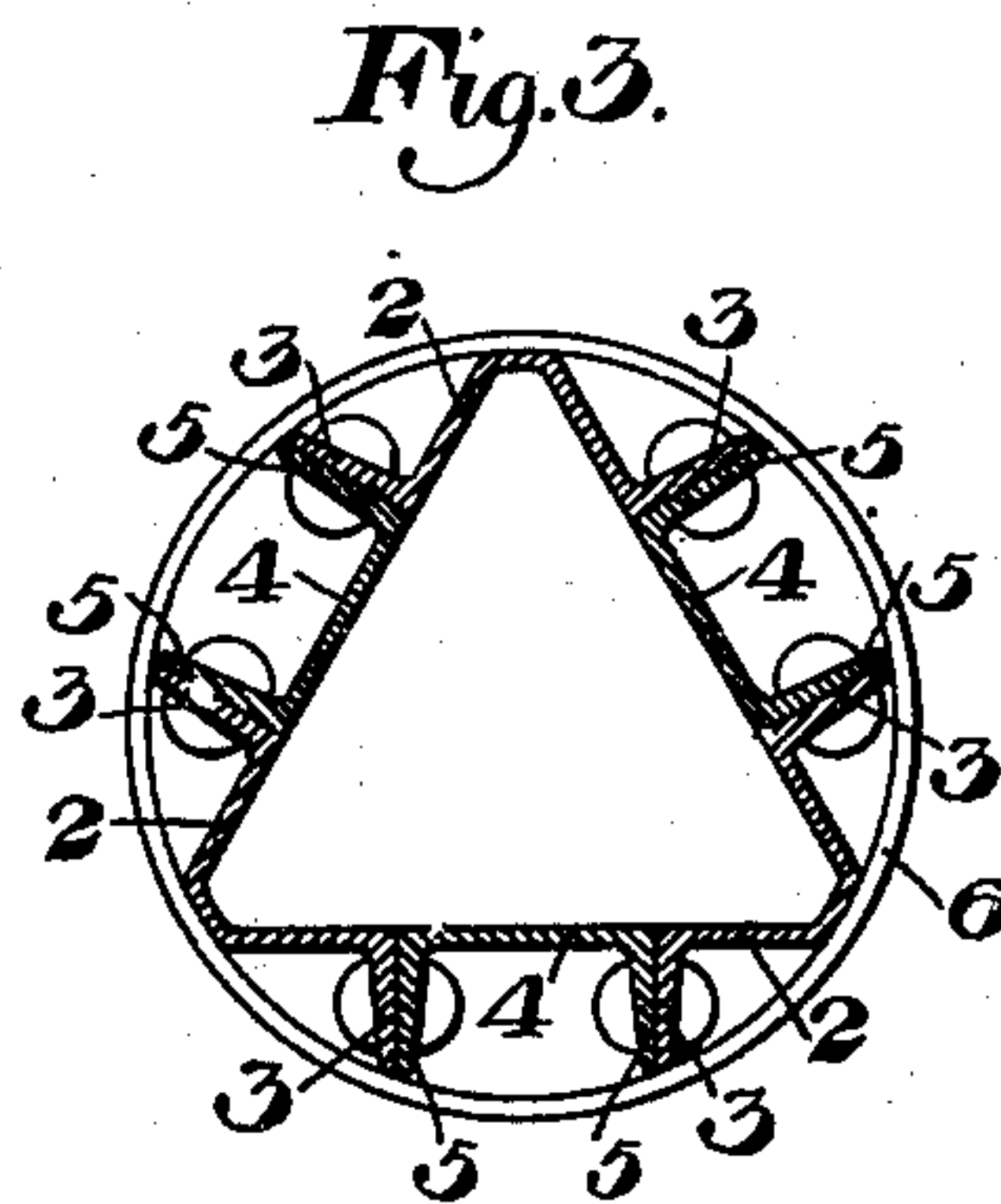
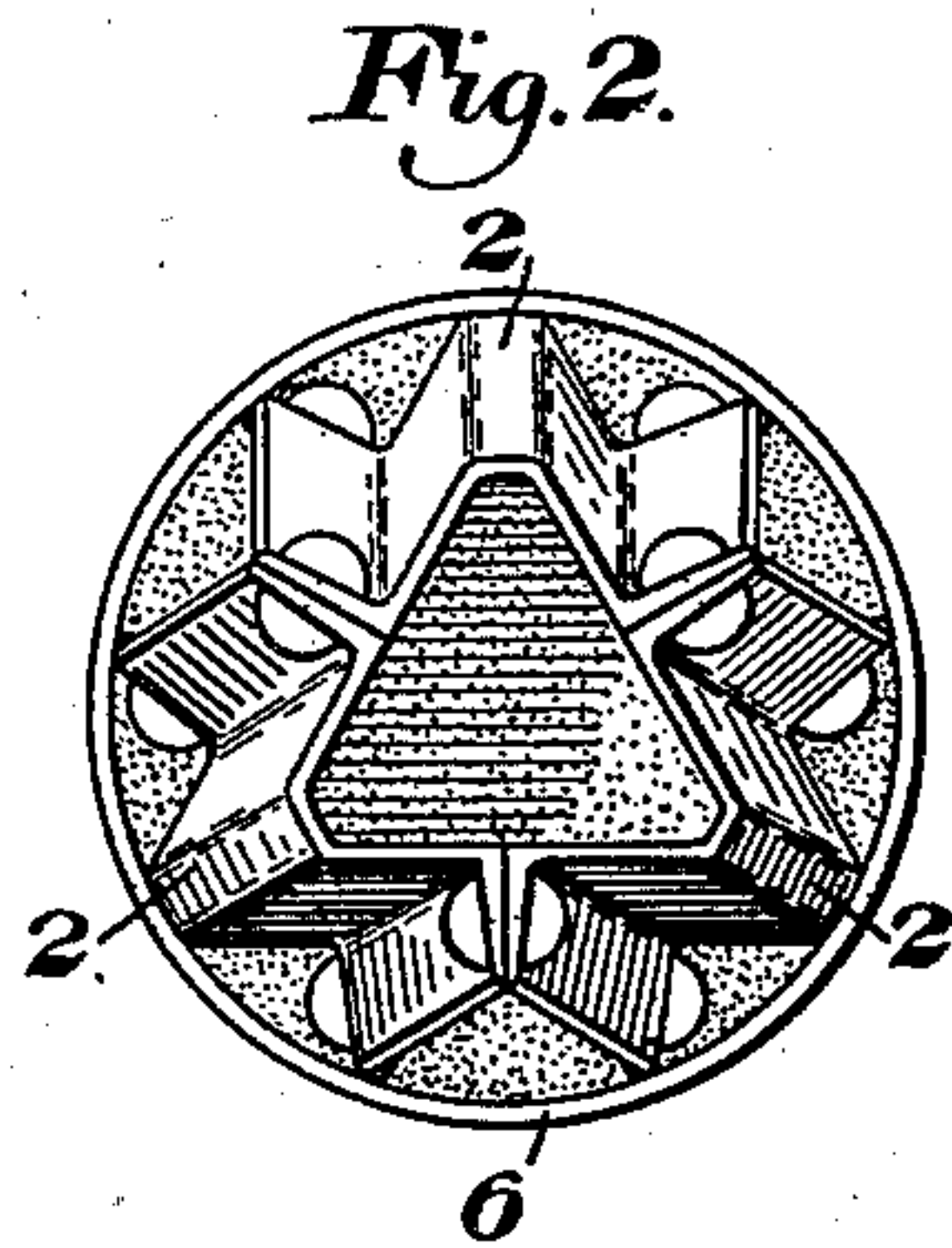
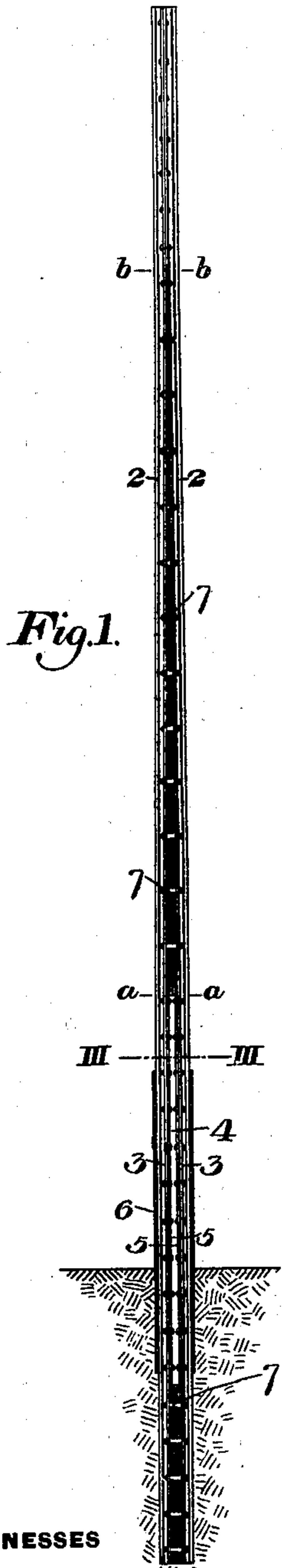
Patented Jan. 15, 1901.

J. LANZ.

TRIANGULAR POLE OR COLUMN.

(Application filed Sept. 20, 1899.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN LANZ, OF PITTSBURG, PENNSYLVANIA.

TRIANGULAR POLE OR COLUMN.

SPECIFICATION forming part of Letters Patent No. 666,146, dated January 15, 1901.

Application filed September 20, 1899. Serial No. 731,062. (No model.)

To all whom it may concern:

Be it known that I, JOHN LANZ, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Triangular Poles or Columns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation, partly broken away, of my improved pole or column. Fig. 2 is a top plan view of the same. Fig. 3 is a section on the line III III of Fig. 1; and Fig. 4 is a cross-section similar to Fig. 3, showing a modified construction.

My invention relates to poles or columns, especially those used for trolley-poles, and is designed to provide a cheap, light, and strong construction.

In the drawings I show a pole consisting, essentially, of three channels having trough-shaped webs 2 and flanges 3 3, the troughs being placed at the apices of a triangle. The pole is preferably straight from its lower end to the point marked *a a*, and throughout this portion the channels are spaced apart and, for a certain portion thereof, strengthened by intermediate channels 4, having their flanges 5 riveted to the flanges of the trough-channels, as shown in Fig. 3. These supplemental short channel-sections 4 extend partially above and partially below the ground-level, and for this portion a casing 6 is preferably provided, which may be secured to the channels in any desired manner. Below the lower end of the short channel-sections the flanges 3 of the outer channels are secured together by pipe-rivets 7, as shown in Fig. 1.

From the level *a a*, at which the short channel-sections terminate, the pole tapers upwardly to about the level *b b*, within a short distance of the top, the top portion above this point being straight. Throughout the tapered portion the flanges of the channels are secured together by tubular or pipe rivets 7, of gradually-decreasing length, and above the tapered portion the flanges 3 are riveted directly together, as shown in Fig. 2. A strong and symmetrical pole is thus afforded, in which the metal is well adapted for withstanding strains by reason of the triangular shape, while the fastening-rivets are all exterior to

the hollow interior, and consequently the column may be easily made.

I have shown the trough portions of the channeled sections as provided with a blunt or rounded corner; but the sections may be rolled with a sharp angle or of such other trough-section that they may be straightened after rolling and while at the necessary angle without any bending or further operations than assembling and securing together.

Instead of using channels at the corners of the triangle I may use two angles 8, which are secured to inner triangular bands or rings 9. In the lower straight portion of the pole, of which I show the cross-section in Fig. 4, the channel-sections 4' are secured to the angles by exterior rivets in the same manner as the previous form.

The advantages of my invention result from the cheapness and ease of construction of the pole and the distribution of the metal in the triangular form, which is peculiarly adapted to the withstanding of strains to which a pole or column is subjected.

Many changes may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. A pole or column of triangular form and having flat sides, said pole containing flanged shapes with the flanges located intermediate of the corners; substantially as described.

2. A pole or column of triangular form, having channeled shapes at the corners thereof, and projecting flanges between the corners; substantially as described.

3. A triangular column having flat sides and containing channels with their flanges secured together by exterior rivets, said flanges being between the corners; substantially as described.

4. A pole or column containing channeled sections, said sections being spaced apart by shorter channeled sections secured between them, with the flanges of the shorter sections fitting against those of the longer sections; substantially as described.

5. A hollow pole or column containing shapes arranged to inclose a triangle with flat sides, and having a straight portion and a tapering portion; substantially as described.

6. A triangular column having outwardly-

projecting flanges intermediate of the corners and secured together, said flanges being substantially at right angles to the sides of the column, substantially as described.

- 5 7. A triangular column having a straight portion and a tapered portion, and containing riveted flanges, the sides of the triangle being straight and the flanges being parallel with each other in the straight portion, and
10 having a gradually narrowing or tapering space between them in the tapered portion of the pole; substantially as described.

8. A pole or column having a straight and

a tapering portion and containing channeled sections, said sections being spaced apart in the straight portions by longitudinal sections of shorter length having flat faces fitting against the flange-faces of the channeled sections and secured to said flanges; substantially as described. 15 20

In testimony whereof I have hereunto set my hand.

JOHN LANZ.

Witnesses:

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