

No. 669,364.

Patented Mar. 5, 1901.

J. LANZ.

TUBULAR POLE OR COLUMN.

(Application filed July 21, 1899.)

(No Model.)

Fig. 1.

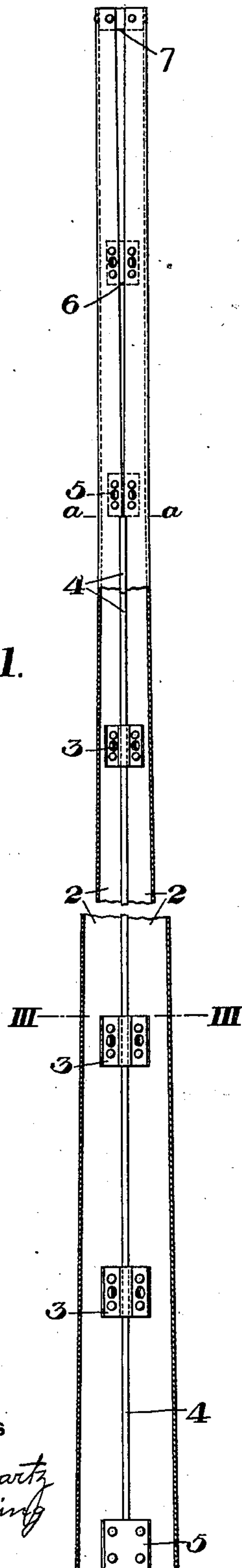


Fig. 2.

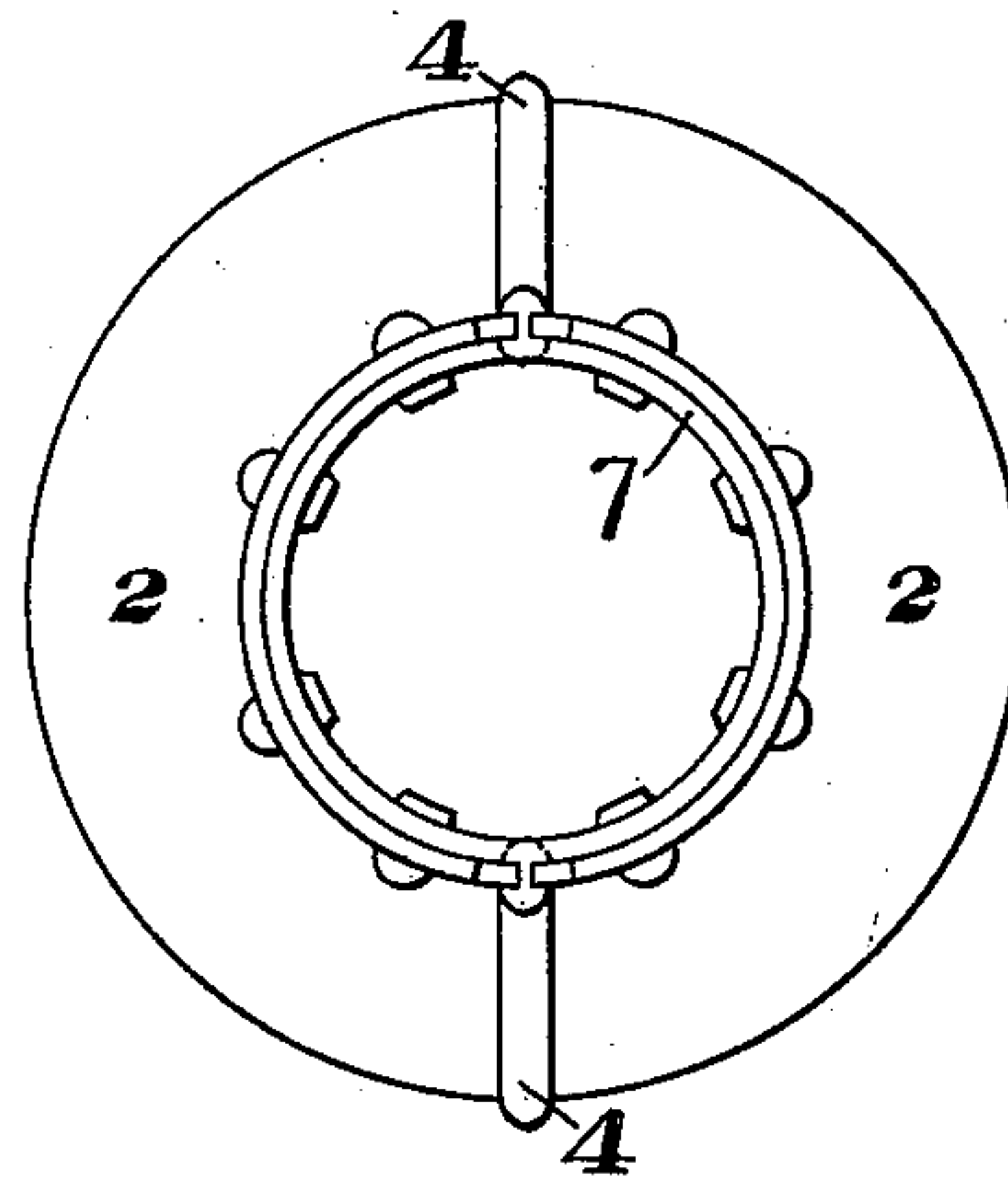
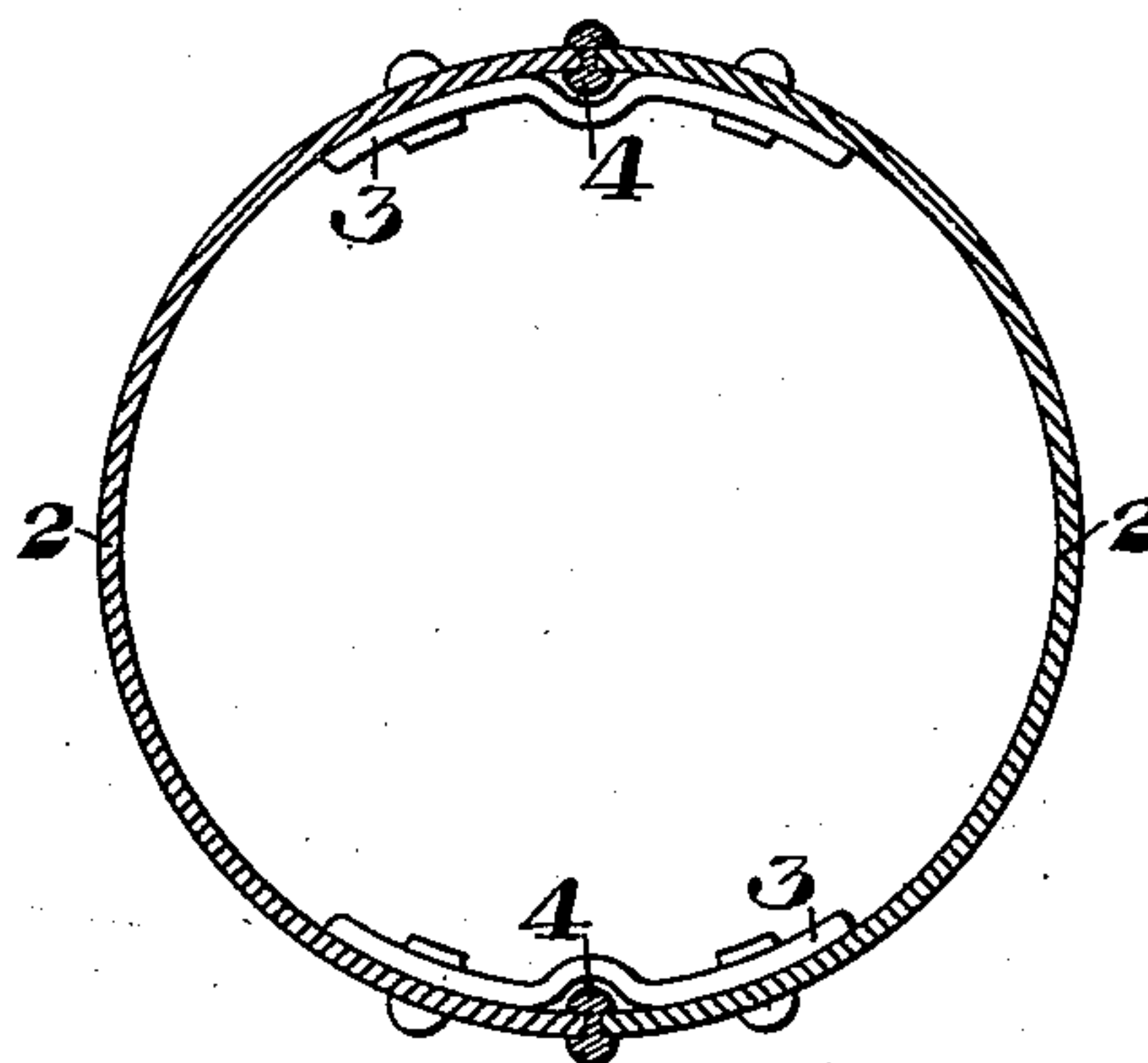


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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TUBULAR POLE OR COLUMN.

SPECIFICATION forming part of Letters Patent No. 669,364, dated March 5, 1901.

Application filed July 21, 1899. Serial No. 724,623. (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 Tubular 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—

10 Figure 1 is a side elevation, partly broken away, of my improved column. Fig. 2 is a top plan view of the same, and Fig. 3 is a cross-section on the lines III III of Fig. 1.

15 My invention relates to poles or columns of tubular form, and is designed to provide a cheap and light pole in which the metal shall be so distributed as to withstand heavy strain, while at the same time all welding together of successive pipe-sections is avoided.

20 In the drawings, I show a pole composed of two long tapering blanks 2 2, each of the length of the pole and each bent into curved or semicircular form. These blanks may be formed by cutting a single plate diagonally from one end to the other, and the halves are secured together by interior tie-plates 3, riveted thereto. To cover the butt-joints between the halves, I provide a rolled bead-strip 4, having a central web with conical heads or ribs at the sides, and which is inserted between the registering edges of the bent blanks. The plates 3 are bent or corrugated at their intermediate portions to give room for the inner head of the beaded strip. The beaded strips terminate above the lower end of the pole and rest upon flat inner tie-plates 5, riveted to the interior of this end. The tie-plates are spaced at any desirable distance apart, and the pole tapers continuously from the lower end to the point *a a*, which is, say, five feet from the top of the pole. The pole is straight from this point to its top to enable the clamps to be adjusted vertically thereon, the beaded strips terminating at and abutting against the lower end of the flat tie-plate 5 at the lower end of the straight portion. This upper end portion being straight leaves gradually-enlarging V-shaped slots between the segments or blanks, which are connected by inner tie-plates 6 and by a ring 7, which is riveted within the upper end of the pole and prevents springing of this portion when the clamps are applied.

55 The advantages of my invention result from the obtaining of a smooth neat pole without

exterior plates or lattice-work, while the welding of pipe-sections is avoided. The use of the inner tie-plates is an important feature of the invention, and the pole may, if desired, be made straight or of octagonal or other desired contour. The parts are secured together by rivets, which are subjected to a shearing strain, thus obtaining the full strength of the rivets, while at the same time the segments can be spread apart at the base or top of the pole, or both, so as to distribute the metal economically.

I claim—

1. A hollow pole of pipe form composed of longitudinally-divided trough-shaped sections, interior tie-plates at the joints and secured to the sections, and cover-strips interposed between the meeting edges of the sections; substantially as described.

2. A hollow tapered pole of pipe form composed of longitudinally-divided trough-shaped plates with plain outer faces and having meeting edges, and plain flat inner tie-plates riveted directly to the trough-shaped sections across the joint; substantially as described.

3. A tapered pole having a straight upper portion and formed of separate tapered bent plates, interior tie-plates securing their edges together, and beaded strips between the edges of the plates throughout the major part of the tapered portion; substantially as described.

4. A hollow pole of pipe form composed of longitudinally-divided trough-shaped sections with their edges secured together by substantially radial rivets, said pole having a tapered portion and a straight portion; substantially as described.

5. A hollow pole of pipe form composed of longitudinally-divided tapered trough-shaped sections with their edges secured together by interior tie-plates riveted across the joints, said pole being tapered through a portion of its length and having a straight portion at its upper and smaller end formed by spacing the sections apart at their edges; substantially as described.

In testimony whereof I have hereunto set my hand.

JOHN LANZ.

Witnesses:

L. M. REDMAN,
C. C. BITTNER.