

(No Model.)

C. MASCHMEYER.
METAL TUBING.

No. 432,059.

Patented July 15, 1890.

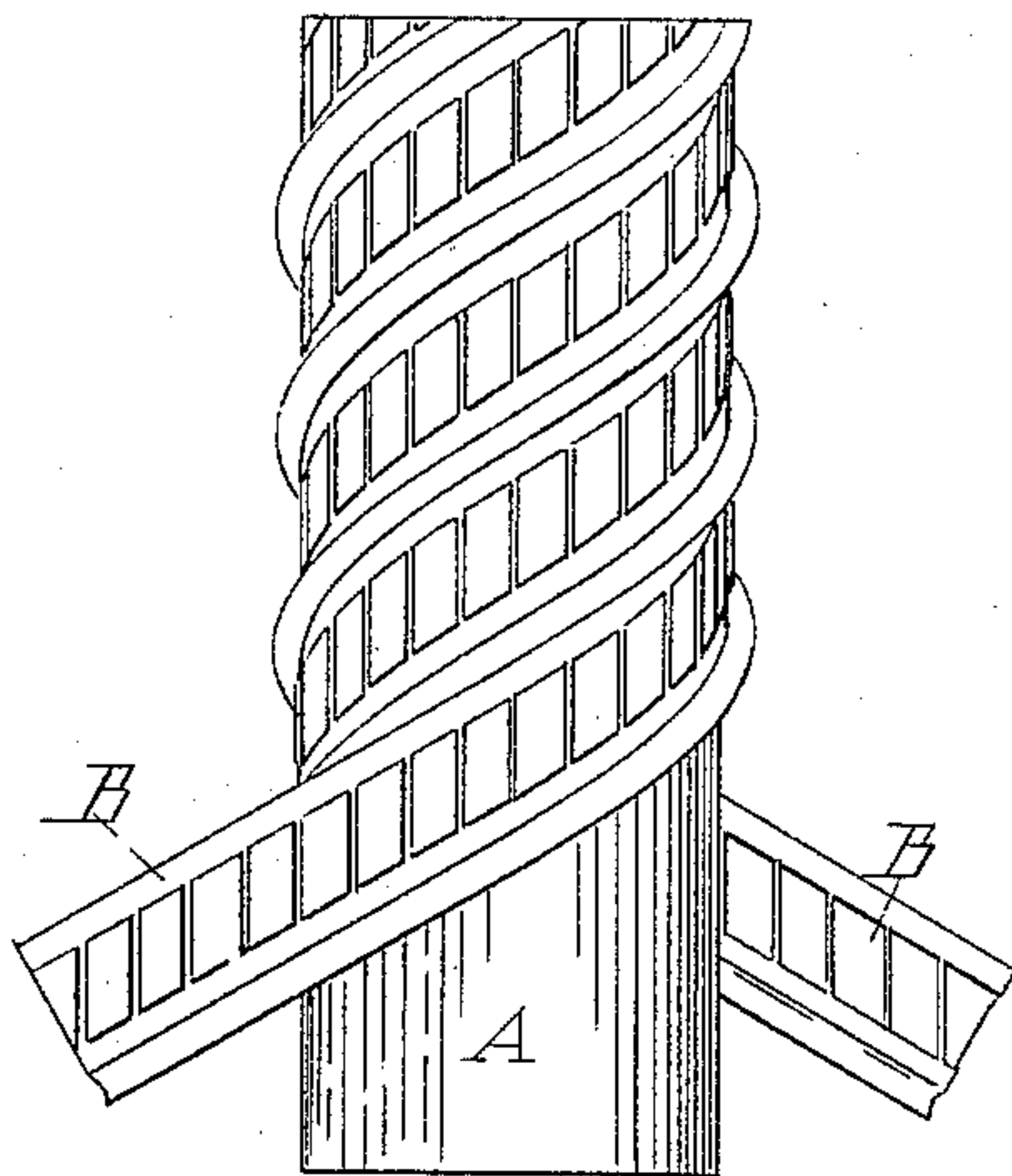


Fig. 2

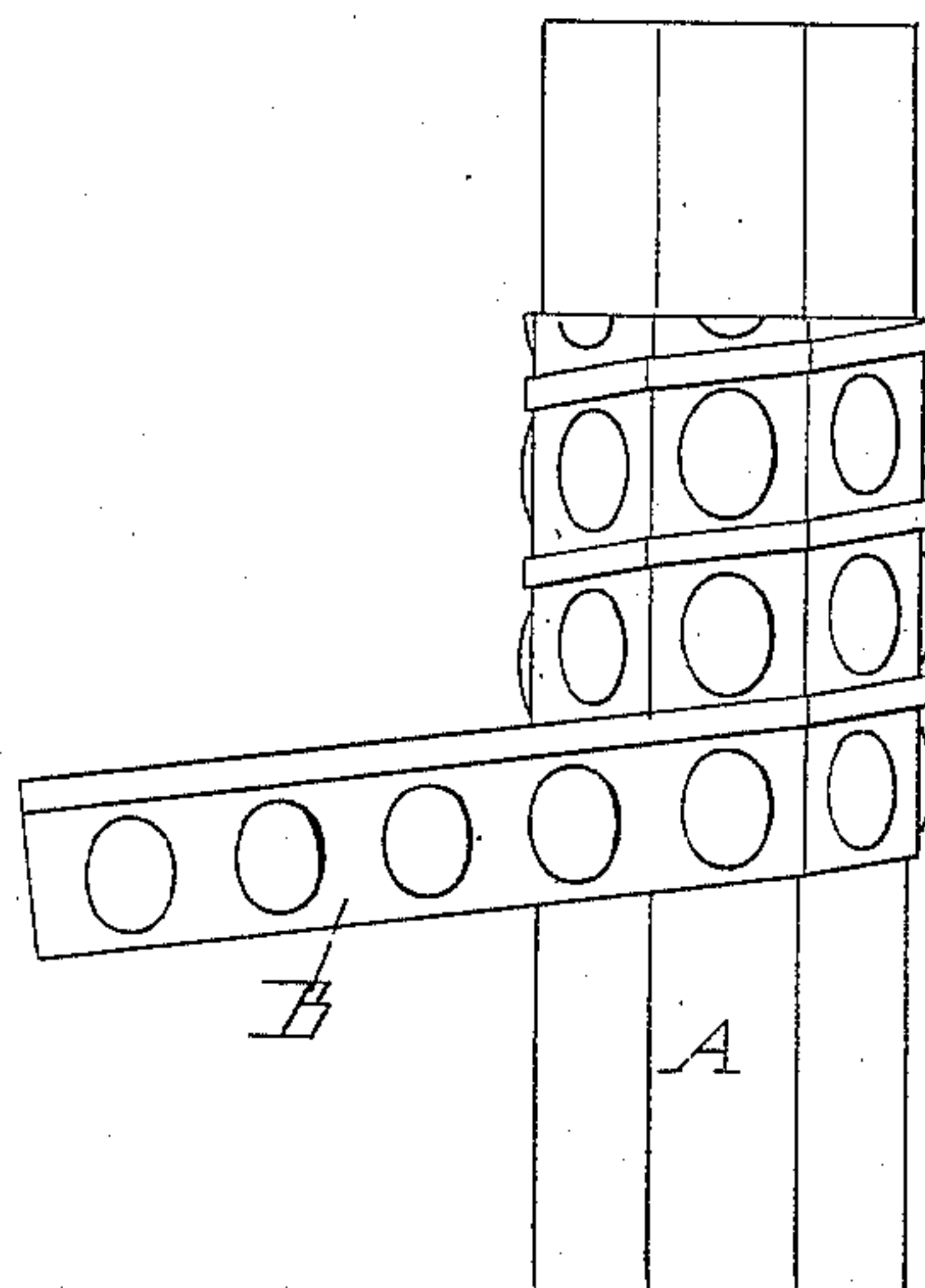


Fig. 1

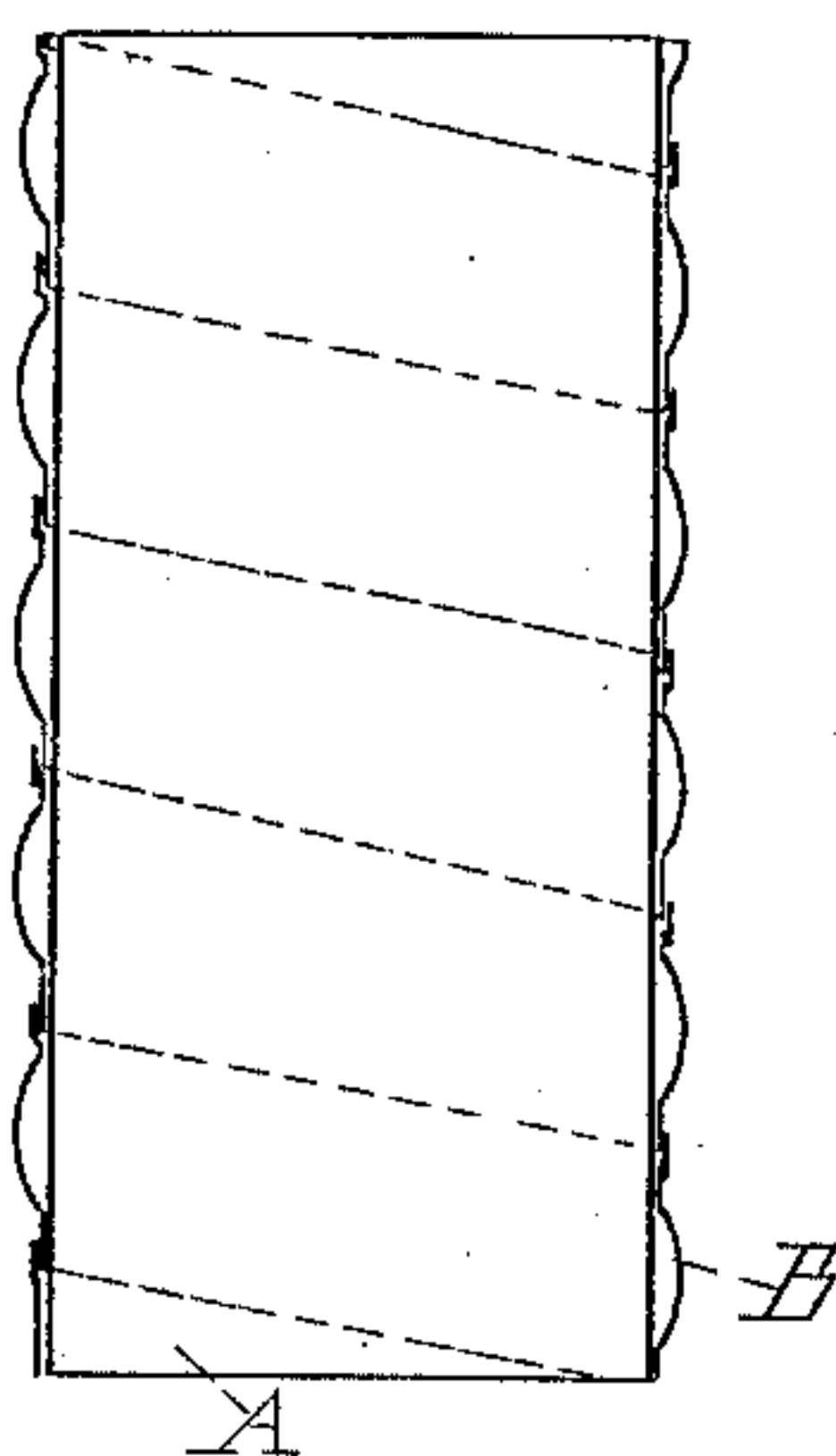


Fig. 3

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METAL TUBING.

SPECIFICATION forming part of Letters Patent No. 432,059, dated July 15, 1890.

Application filed May 23, 1890. Serial No. 352,954. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MASCHMEYER, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have invented a new and useful Improvement in Metal Tubing, of which the following is a specification.

My invention is intended to produce a tubing similar to the embossed or "fancy-pattern" metal tubing now used in chandelier-work and the like at a less cost, or a tube bearing a pattern superior in sharpness of outline to what can be economically produced by the usual methods.

In the accompanying drawings, Figure 1 represents in elevation a piece of tubing partly covered. Fig. 2, also in elevation, shows a modification. Fig. 3 is a section of a modified detail.

The same letters refer to like parts in the several views.

A designates a tube; B, a strip or ribbon of metal.

Heretofore it has been customary to produce an embossed pattern on tubing by passing a plain tube between rolls or under an indenting-tool. This and similar methods can be employed only on tubing of a thickness varying within narrow limits, as if too thick it cannot be readily indented; if too thin, it cannot withstand the crushing pressure. Besides this, it is often desirable, especially where it is necessary to telescope one tube within another, that the inner surface of the tube should be smooth, while its exterior is ornamentally corrugated or indented.

My invention secures the production of a tube of any desired thickness, smooth on its interior, and ornamented in any desired pattern on its exterior surface. To achieve this result, I take a plain tube A, of any desired length, diameter, and gage, and wind spirally around it a ribbon or strip B, of embossed sheet metal, securing the ends of the ribbon to the tube by riveting, soldering, or in any desired manner. If the tube used is cylindrical in section, as shown in Fig. 2, I preferably first wind the embossed metal ribbon on a mandrel of a diameter somewhat less than that of the tube. Being slightly resilient, the

ribbon is formed to a spiral, which is loose on the mandrel. This spiral is then removed from the mandrel and slipped on the tube, one end of the ribbon is secured at or near an end of the tube, and the ribbon adjusted on the tube, wound tightly, and secured at its other end. In practice I prefer to use a thin metal strip—if of sheet-brass, say, .01 inch thick—and it is obvious that a more delicate pattern can be produced on strip metal of this gage by an inexpensive process, as by passing between rolls, than can be indented into a relatively heavy tubing.

In Fig. 1 of the drawings I have shown how a more complicated pattern may be produced by the use of a plurality of strips B B, wound upon a plain tube A, as before.

In Fig. 3 is shown a sectional view of an embossed strip B, applied to a plain tube A, one edge of the strip overlapping the other. In some cases, and especially where the tube used is polygonal in cross-section, as shown in Fig. 1, this overlapping strip is preferable to one the edges of which abut, as shown in the former figures.

Besides the advantages above named, it will be seen that a relatively cheap or strong tube may be used with a more expensive or easily-ornamented wrapping. Again, it is often advantageous that a portion of a tube should be ornamented while another portion is plain, as shown in Fig. 2 of the drawings. This result is not easily obtainable in a solid tube.

I have indicated one convenient mode of applying the metal strip or ribbon; but it is not to be supposed that I am limited to any particular process. I have also spoken of the strip or ribbon as of sheet metal; but it is obvious that a cast-metal strip may be used, if preferred. It is also plain that the particular metal of which either the tube or covering-strip is made is non-essential to my invention.

I am aware that tubing has heretofore been made by wrapping a metal strip spirally around a mandrel, securing the abutting or overlapping edges of the strip to each other, and removing the mandrel; but I am not advised that a tube has before been made by wrapping an embossed or otherwise ornamented strip of metal around a tube and se-

curing the tube and strip together, as herein described.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. In combination, a tube and a covering-strip wound spirally thereon and secured thereto, substantially as described.

2. In combination, a tube and a covering-strip wound spirally thereon and secured thereto, the edges of said strip abutting against each other, substantially as described.

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Witnesses:

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