J. B. ROOT.

METALLIC TUBING.

No. 188,305. Patented March 13, 1877.

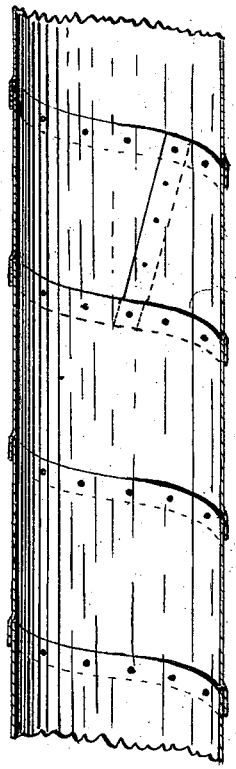

Fig. 2.

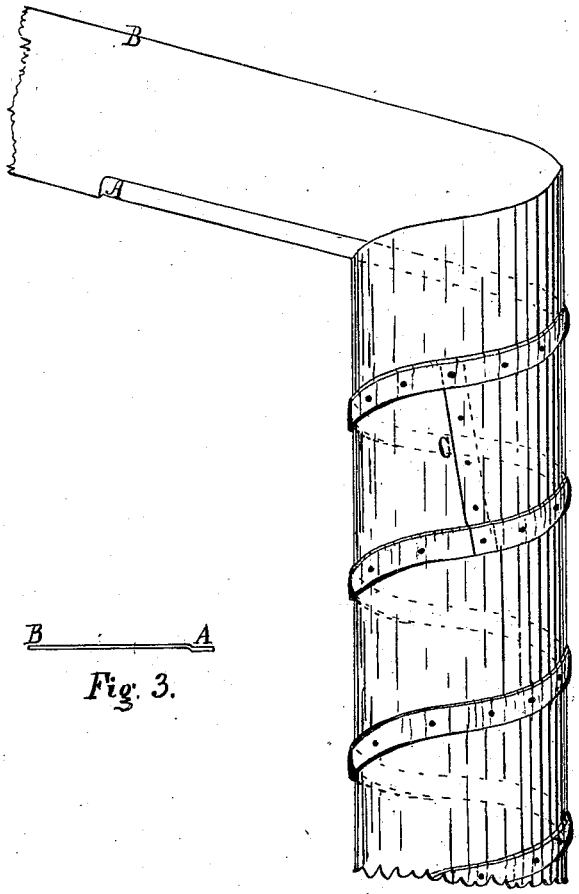

Fig. 3.

Fig. 1.

Witnesses
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JOHN B. ROOT, OF NEW YORK, N. Y.

IMPROVEMENT IN METALLIC TUBING.

Specification forming part of Letters Patent No. **188,305**, dated March 13, 1877; application filed March 24, 1876.

To all whom it may concern:

Be it known that I, JOHN B. ROOT, of the city and State of New York, have invented a new and useful Improvement in Tubes, of which the following is a specification:

The invention which forms the subject-matter of this specification relates to pipes or tubes in which the edges of the blank strip of metal forming the same are united in a seam that passes spirally around the tube; and it consists in offsetting one edge of the straight blank, so as to make a lap-joint, and at the same time leave the interior of the tube of uniform diameter throughout; also, in securing the joint thus formed by riveting.

The nature of this spiral joint or seam is fully illustrated in the accompanying drawing, in which—

Figure 1 shows a section of pipe formed from a strip of sheet metal, Fig. 2 being a longitudinal section of the same, and Fig. 3 a transverse section of the blank from which it is formed.

In making this improved tubing, a plain strip or ribbon of metal is taken, having straight and parallel edges, one of which is offset, as shown at A in Fig. 3. The blank is then wrapped or wound spirally around a cylindrical mandrel or former, the edge A overlapping the edge B. The spiral lap-joint thus produced may be closed and secured in any desired mode—as by soldering, galvanizing, welding, or riveting; or the joint may be both riveted and afterward soldered. The drawing shows it as riveted.

The above mode of forming the spiral lap makes an exceedingly simple joint, and one that is specially adapted to permit the use of rivets; and the rivets, in turn, add greatly to the strength and durability of the seam.

As shown in the drawing, the interior of the tube will have substantially an even surface throughout, the rib being formed on the exterior; but it is plain that, if desired, the other edge, B, of the blank may be offset instead of the edge A, and in such way that the rib upon the finished tube will be upon the inside, while the exterior will be left smooth.

Whether the rib be made on the exterior or the interior, it becomes necessary, in forming a spirally-wound pipe of uniform diameter from a straight blank by lapping the edges, as contradistinguished from scarfing or beveling them, that one edge be struck up or offset, substantially as shown; otherwise it would be impossible to wind it upon the mandrel.

This tubing, like any other spirally-wound sheet-metal tubing, may be made of any desired length, one strip being locked or riveted, or otherwise joined, to another, as shown at C, to an indefinite extent.

What is claimed as new is—

A pipe or tube which has a joint or seam passing spirally around it, such joint or seam being formed by the offsetting, overlapping, and riveting of the edges of the blank, substantially as described.

JOHN B. ROOT.

Witnesses:

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