

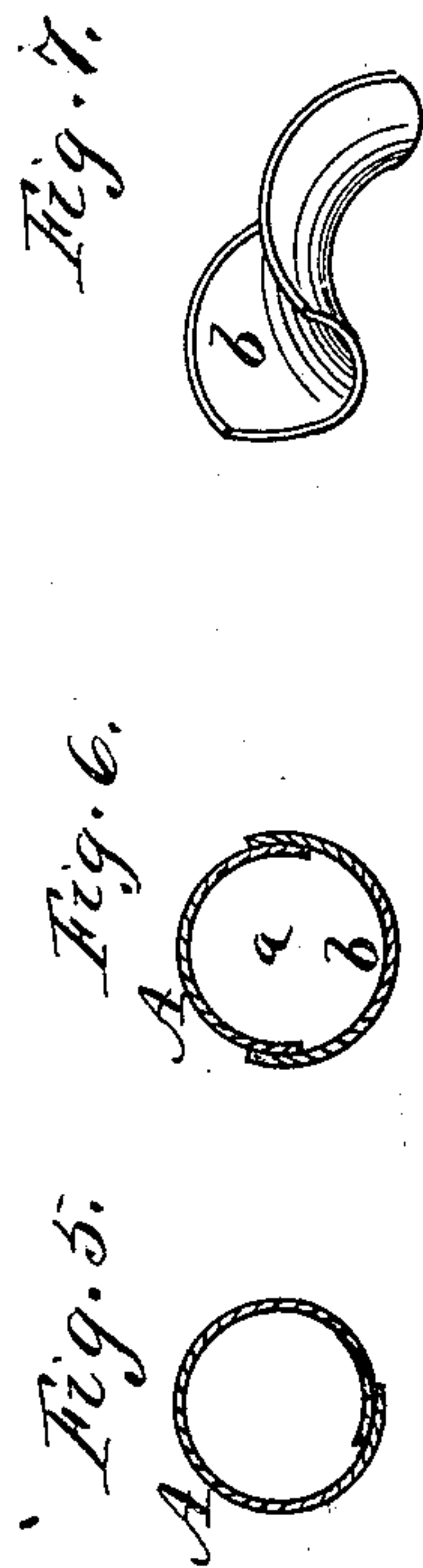
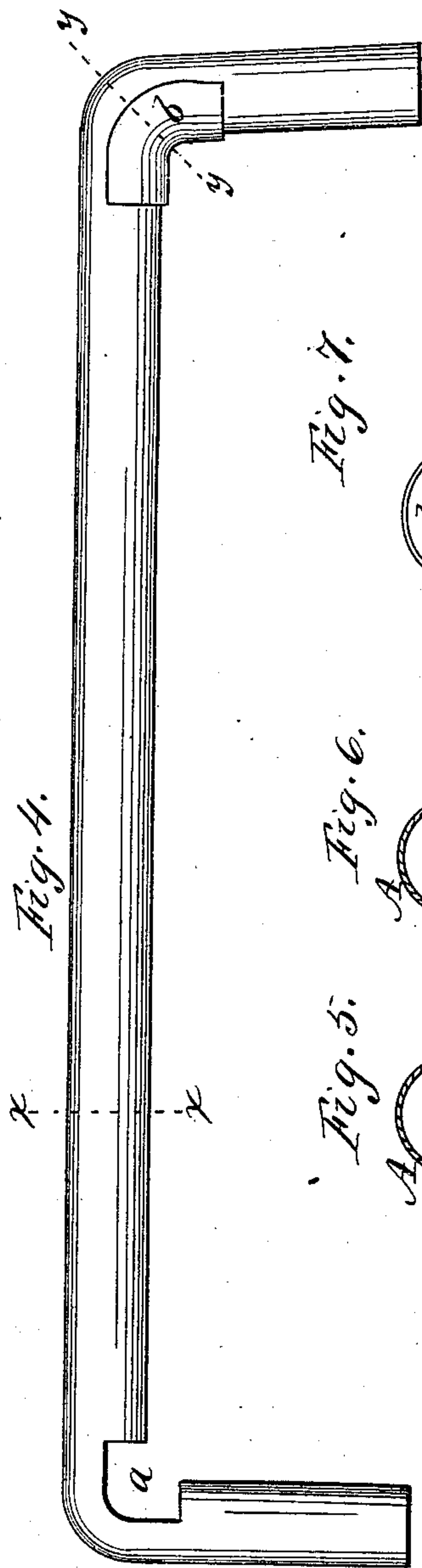
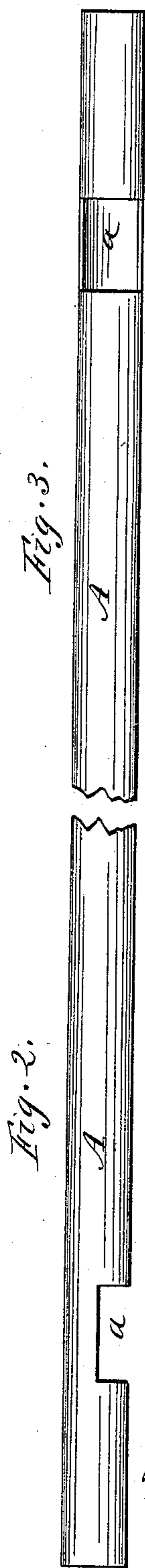
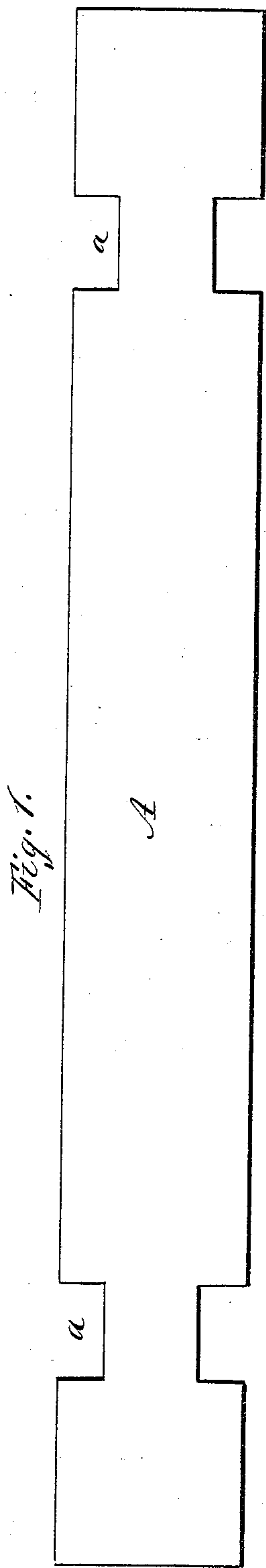
(No Model.)

2 Sheets—Sheet 1.

J. W. ORPHY.
TUBE FOR LANTERNS.

No. 335,235.

Patented Feb. 2, 1886.



Attest.

P. H. Mestrich
E. A. Adams

Inventor.
John W. Orphy,
by *R. F. Osgood,*
Atty.

(No Model.)

2 Sheets—Sheet 2

J. W. ORPHY.
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Fig. 8.

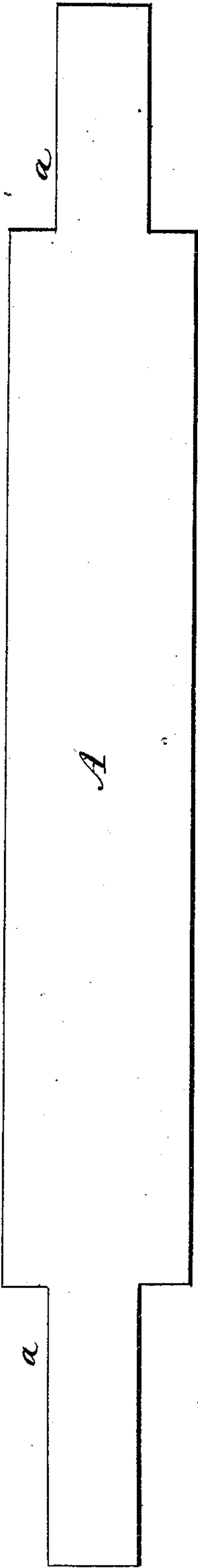


Fig. 9.



Fig. 10.



Fig. 11.

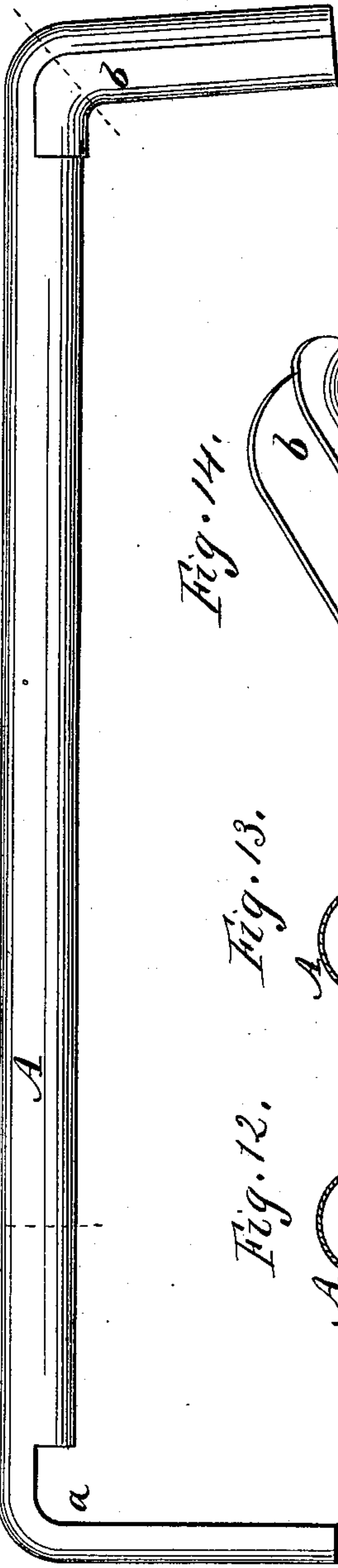


Fig. 14.

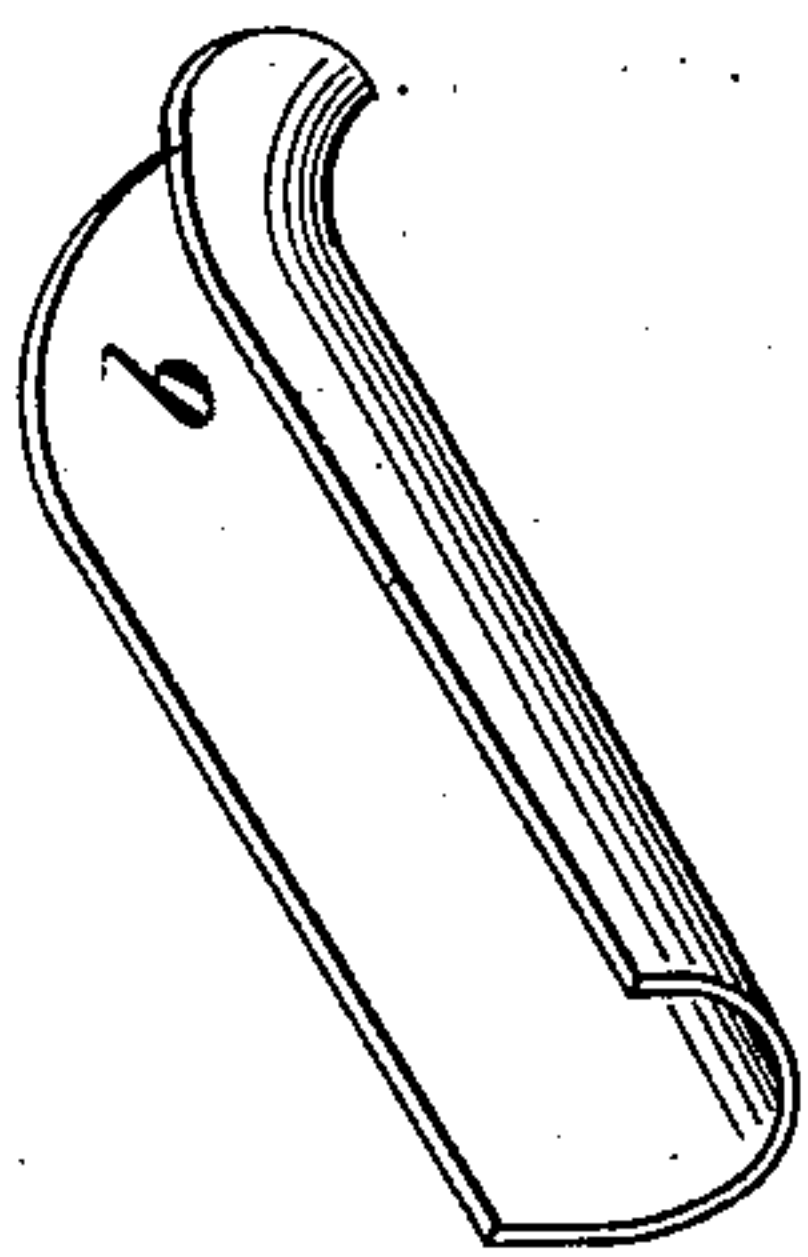


Fig. 13.

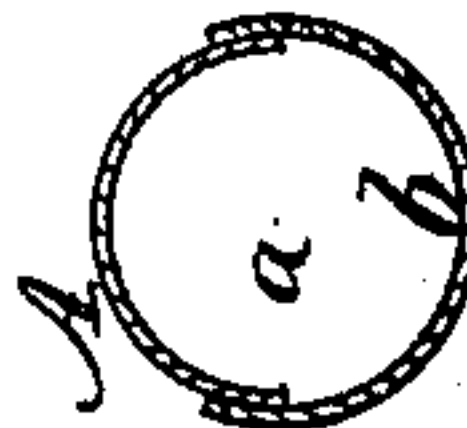
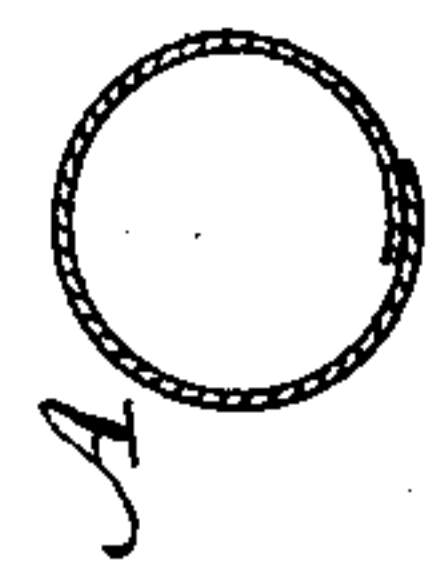


Fig. 12.



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UNITED STATES PATENT OFFICE.

JOHN W. ORPHY, OF ROCHESTER, NEW YORK.

TUBE FOR LANTERNS.

SPECIFICATION forming part of Letters Patent No. 335,235, dated February 2, 1886.

Application filed November 19, 1885. Serial No. 183,354. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. ORPHY, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Side Tubes for Lanterns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to the side tubes of lanterns, and the design is to simplify and cheapen their construction.

Ordinary lantern-tubes are made of several lengths or pieces united by elbows, and are difficult and expensive to make, and present an unsightly appearance. In other cases they have been made from single pieces of tube bent in a machine to produce the desired curve; but they are liable to crack and break, and there is so much loss in the manufacture that their use has been practically abandoned. In other cases the tube has been made from two strips longitudinally grooved and then seamed together.

My invention consists of a lantern-tube made from a single piece of sheet metal wrapped over and overlapping to form the tube, the blank being notched at the elbows, so that it can be readily bent, and these notches covered by patches when the tube is complete, all as hereinafter described.

In the drawings, Figure 1 is a flat view of the blank from which the tube is formed. Fig. 2 is a view of one end of the same rolled into the form of a straight tube. Fig. 3 is a similar view to Fig. 2, but looking at right angles to the latter. Fig. 4 is a view of the completed tube, except at the left hand. The notch over which the patch fits is left uncovered for clearness of illustration. Figs. 5 and 6 are cross-sections, respectively, in lines $x x$ and $y y$ of Fig. 4. Fig. 7 is a perspective view of the patch. Figs. 8, 9, 10, 11, 12, 13, and 14 are views similar to Figs. 1, 2, 3, 4, 5, 6, and 7, but showing a modification.

A in Fig. 1 shows the strip of sheet metal from which the tube is formed. It is of rectangular form, and of a width such as to be bent over a mandrel or in a machine into tubular form with the edges overlapping, as shown in Fig. 5.

At the points where the bends are to be made to form the elbows the blank is notched,

as shown at a , and when rolled or folded in tubular form these notches form half-tubes in cross-section, as shown in Figs. 2 and 3. This allows the bends to be made at the elbows without trouble by the use of dies, which cannot be done if the tube is entire, except by filling the tube with some resisting material, stopping the ends, and then bending it over a form.

b is a patch curved longitudinally and segmental in cross-section, and of such size as to be fitted over and cover the notches a , and overlapping on all sides. When the tube is thus formed and bent and the patches applied in place, the tube is dipped in melted tin, which covers the surface and solders the seam and secures the patch in place and completes the operation.

The modification shown in Figs. 8, 9, 10, 11, 12, 13, and 14 consists in elongating the patch, so as to cover the whole length of the arm of the tube from the elbow outward, said arm being made in half-tubular form in cross-section clear to its outer extremity. The same result is attained as the tube is made in one piece, folded over, and the patch simply covers the opening. I wish to cover both these forms.

The great advantage of this tube over ordinary tubes is that it is made of one strip of metal rolled over in the form of a tube, the ends being notched to allow bending, and these notches being covered by patches. By this means great saving of stock is made, the labor is materially lessened, and a better appearance is presented, as the unsightly elbows, such as are ordinarily used, are avoided.

This invention is applicable to other tubes as well as lantern-tubes.

Having described my invention, what I claim as new is—

A side tube for a lantern, made from a single strip of metal rolled over to form a tube, notched at the elbows to allow bending, and the notches covered by patches, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN W. ORPHY.

Witnesses:

R. F. OSGOOD,
C. B. SMITH.