(No Model.)

G. C. WHITESIDES.

WATER GAGE REFLECTOR.

No. 270,530. Patented Jan. 9, 1883.

Fig. 1.

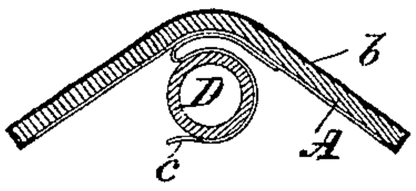


Fig. 3

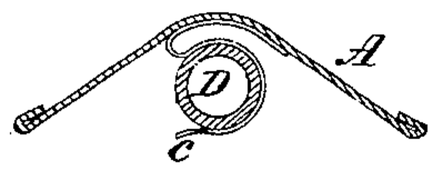


Fig. 2.

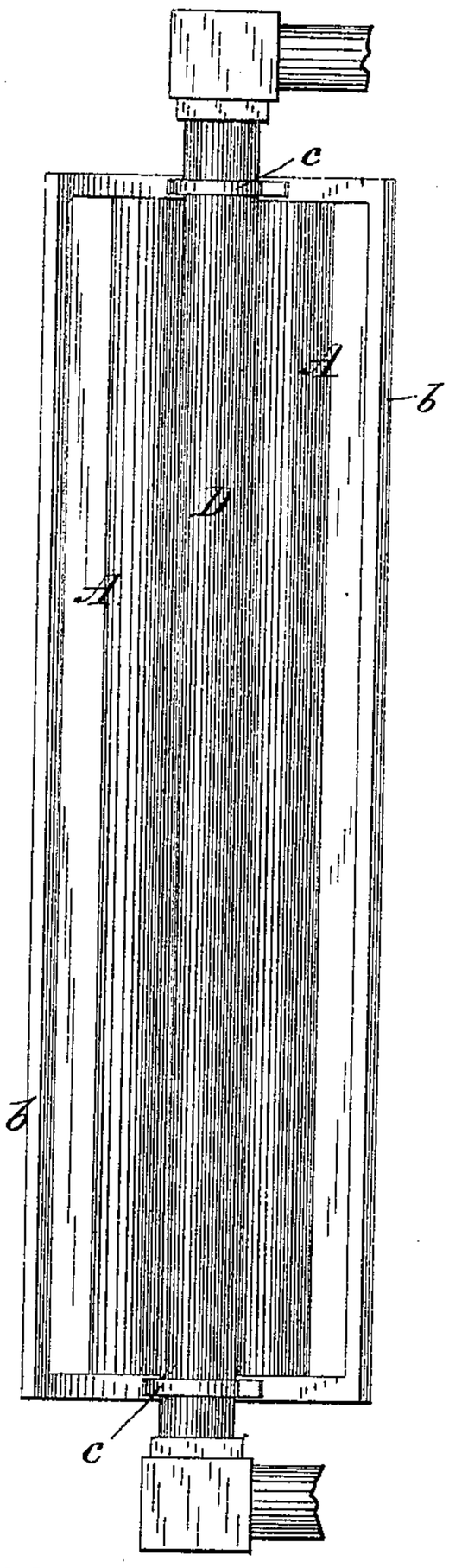
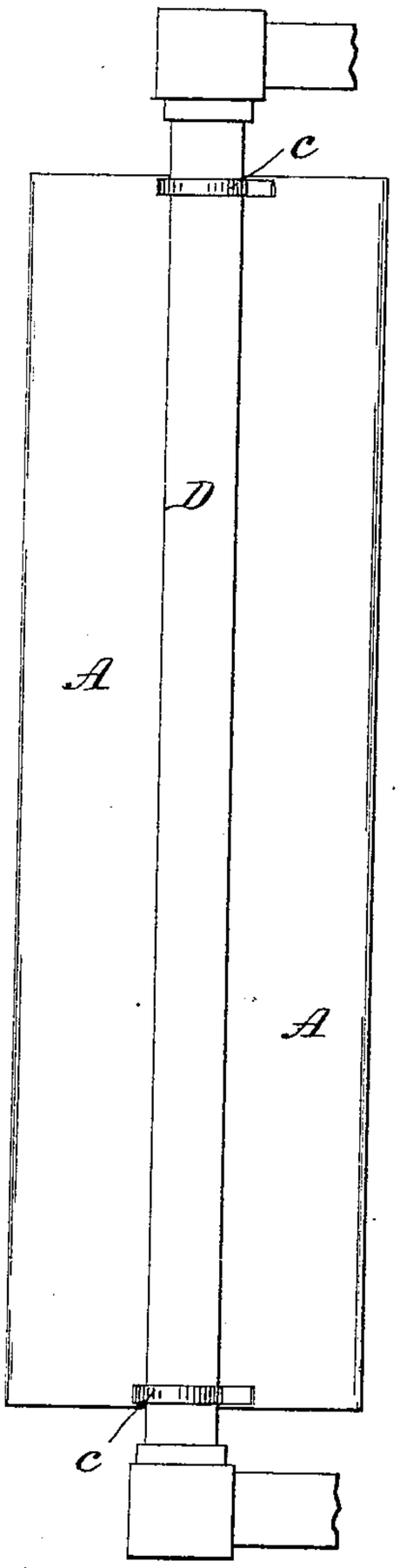


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE C. WHITESIDES, OF PHILADELPHIA, PENNSYLVANIA.

WATER-GAGE REFLECTOR.

SPECIFICATION forming part of Letters Patent No. 270,530, dated January 9, 1883.

Application filed August 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. WHITESIDES, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Water-Gage Reflectors; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a horizontal section, and Fig. 2 a front elevation, of my reflector applied to a water-gage. Figs. 3 and 4 are similar views of a modification.

This invention relates to the construction of water-gage reflectors for steam-boilers and similar devices.

It consists in a single bent plate shaped to stand behind and partially embrace the gage-glass, plated, silvered, or otherwise rendered reflective, and provided with means for attachment to the water-gage; and, further, in the combination therewith of a metallic sheathing or backing to protect the reflector, substantially as hereinafter described and claimed.

In the drawings, A is a glass plate, bent to a double incline and silvered on its back or convex side. The silvered surface is covered by a sheathing or backing of tin-plate, brass, or other metal, *b*, as shown, the covering being larger than the glass A and the surplus bent or folded around the edges, as shown, to retain the glass and protect the silvered surface from the corroding influence of steam.

A convenient means of attachment to the gage-glass is a strip of metal, *c*, preferably elastic, soldered to the sheath *b* at the top and bottom, so as to act as a clip to catch and retain hold on the gage-glass D, as shown in the figures. The grip is sufficient to hold the reflector firmly in place, but so that it can be instantly dismounted for cleaning or for repairs to the water-gage.

Instead of using a silvered glass reflector, I prefer in some cases to construct the plate A of metal, polish its concave face, and attach it directly to the water-gage, as shown by Figs. 3 and 4. In this case I make the body of the reflector of brass or other base metal, then nickel-plate it, and burnish its concave surface. This gives a surface which is white and highly reflective, and is not injured by steam, while being cheap and easily made. The curvature at the junction of the inclined sides of the reflector acts as a condensing-reflector to concentrate the light along the line of the gage-glass, while the two sides act as mirrors, with the effect (indicated by Fig. 2) of making the gage-glass seem to be of a largely-increased diameter, which renders it visible at a distance.

I claim as my invention—

1. A water-gage reflector composed of a single piece of reflective material detachably secured to the gage, and comprising two flat reflective surfaces, whose planes are at an angle to one another, and are parallel to the longitudinal axis of the gage-glass, substantially as described.

2. A water-gage reflector composed of a single plate of glass, A, bent to a double incline, and silvered on its convex surface, in combination with a metallic sheathing, *b*, folded over its edges, and means for attachment to a water-gage, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE C. WHITESIDES.

Witnesses:

THOS. S. WILTBANK,

ALLEN T. METZ.