

(No Model.)

F. C. DURANT & D. EDWARD.

FLOAT FOR STEAM APPARATUS AND OTHER PURPOSES.

No. 259,833.

Patented June 20, 1882.

Fig. 1.

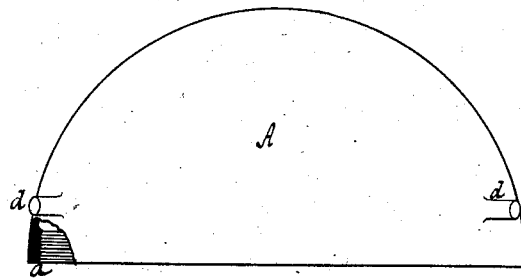


Fig. 2.

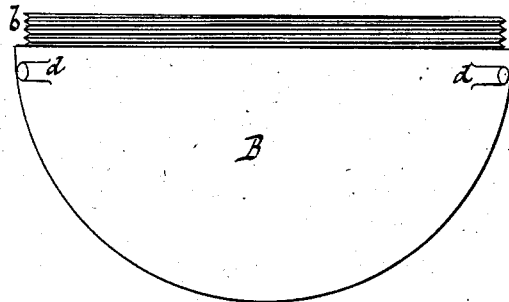
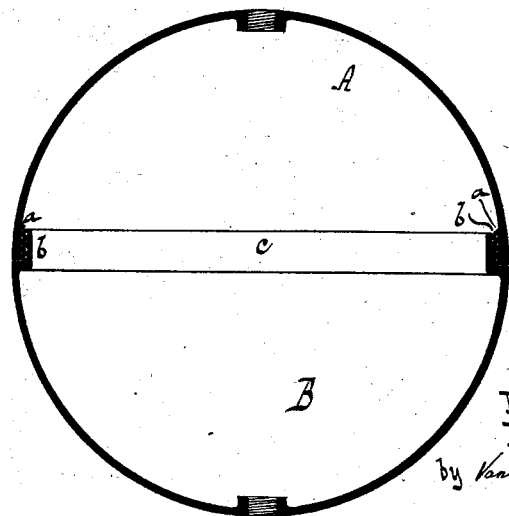


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK C. DURANT AND DAVID EDWARD, OF NEW YORK, N. Y.

FLOAT FOR STEAM APPARATUS AND OTHER PURPOSES.

SPECIFICATION forming part of Letters Patent No. 259,833, dated June 20, 1882.

Application filed December 23, 1881. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK C. DURANT and DAVID EDWARD, both citizens of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Floats for Steam Apparatus and other Purposes, of which the following is a specification.

This invention consists in a float composed of two hemispherical shells, one of which is provided with a male and the other with a female screw-thread, by means of which the same are united.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a side elevation of the half-shell with the female screw-thread. Fig. 2 is a similar view of the half-shell with the male screw-thread. Fig. 3 is a central section of the float when complete.

Similar letters indicate corresponding parts.

The usual method of constructing floats for steam apparatus is as follows: Two hemispherical shells are produced of sheet-copper, either by spinning or by striking them up, and these half-shells are then connected by brazing or by flanging them together. These operations require great skill and much time, and, even with the utmost care, it is extremely difficult to render the float thus produced perfectly tight, since the seams, even if they are tight at the beginning, are liable to open when the floats are exposed to a variable pressure and temperature. These disadvantages are overcome by our invention.

We construct our float of two half-shells, A B, which are by preference cast of brass or other suitable metal. The half-shell A is then provided with a female screw-thread, *a*, and the half-shell B with a male screw-thread, *b*, and for this purpose the last-named half-shell is provided with an internal rim, *c*, on the outer surface of which the screw-thread *b* is cut. The operation of cutting these screw-

threads can be effected in a comparatively short time, and when the two half-shells are united, as shown in Fig. 3, that portion of the float where the seam is formed is strengthened by the internal rim, *c*, to such an extent that the seam cannot possibly be opened by the external pressure to which the float may be exposed, the seam being the last portion which will give way if the pressure rises beyond the desired limit, and at the same time the outer surface of the float remains smooth and uniform throughout. For the purpose of uniting the two half-shells we cast on each a series of lugs or projections, *d d*, so that by applying a suitable wrench the two half-shells can be screwed together as firmly as may be required.

In order to render the joint perfectly tight, a small quantity of red lead or other equivalent material is applied to the threads *a b* before screwing them together. After the two half-shells have been screwed together the outside surface may be turned off, so as to reduce the weight of the float as much as may be desirable.

By these means we are enabled to produce floats of great strength at much less expense than that of the ordinary sheet-metal floats.

What we claim as new, and desire to secure by Letters Patent, is—

A float having a uniformly-smooth outer surface, and composed of two half-shells, which are united by a male and female screw-thread, one of said half-shells being provided with an internal re-enforcing rim, *c*, substantially as shown and described.

In testimony whereof we have hereunto set our hands and seals in the presence of two subscribing witnesses.

FREDERICK C. DURANT. [L. S.]
DAVID EDWARD. [L. S.]

Witnesses:

JAS. W. HALE,
EDWIN L. CARPENTER.