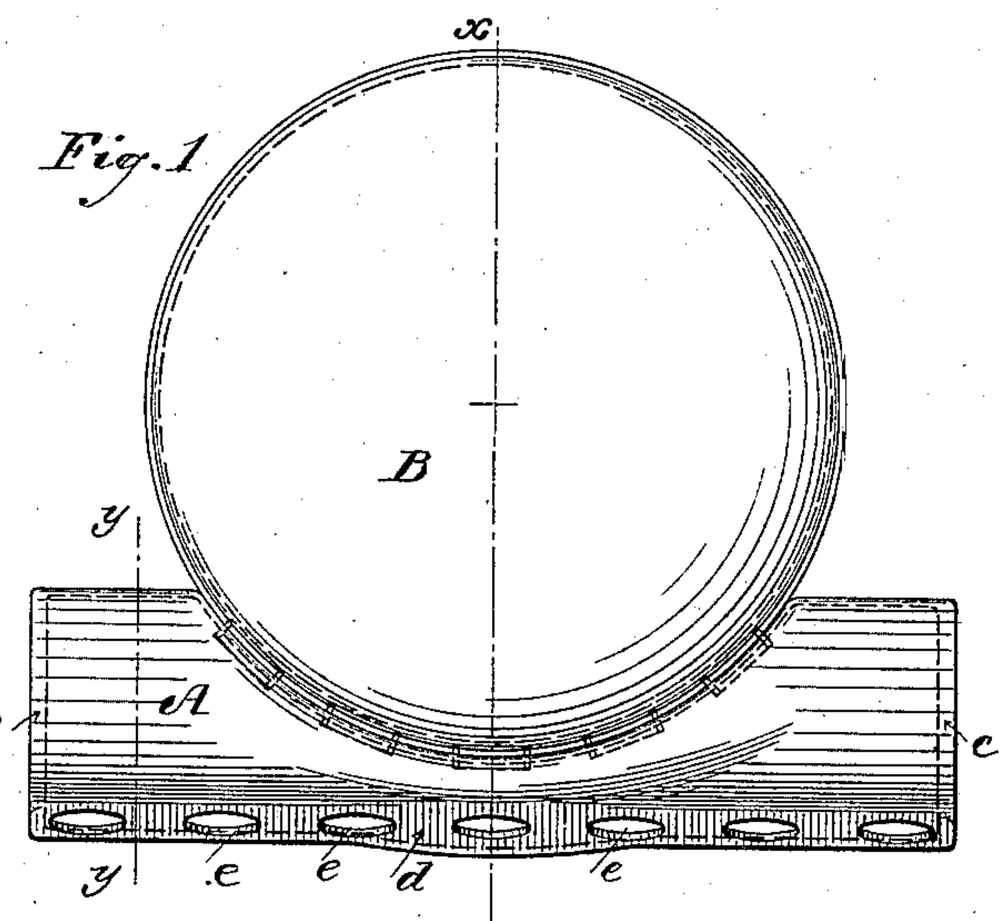
(No Model.)

O. MULLER.

CONNECTING BOX FOR SECTIONAL STEAM BOILERS.

No. 368,602. Patented Aug. 23, 1887.

Fig. 1



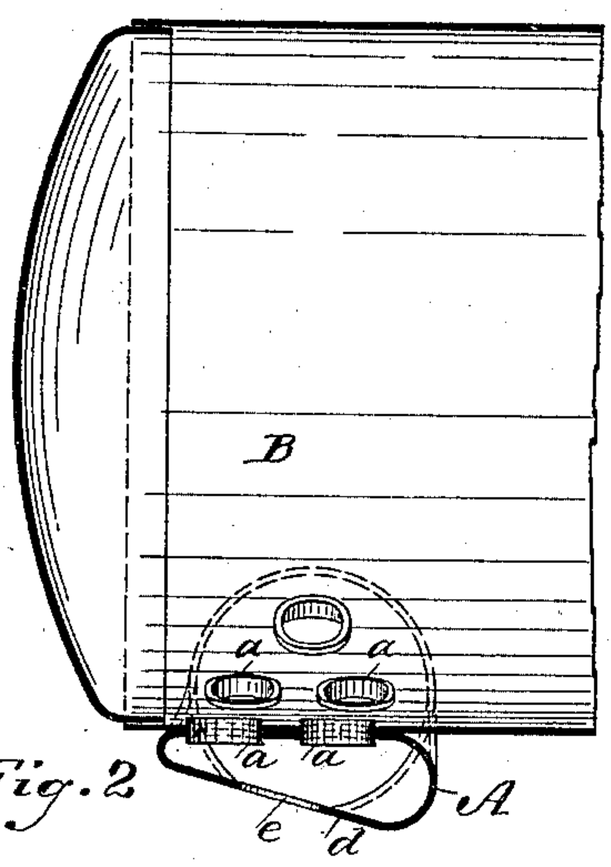


Fig. 2

Fig. 3

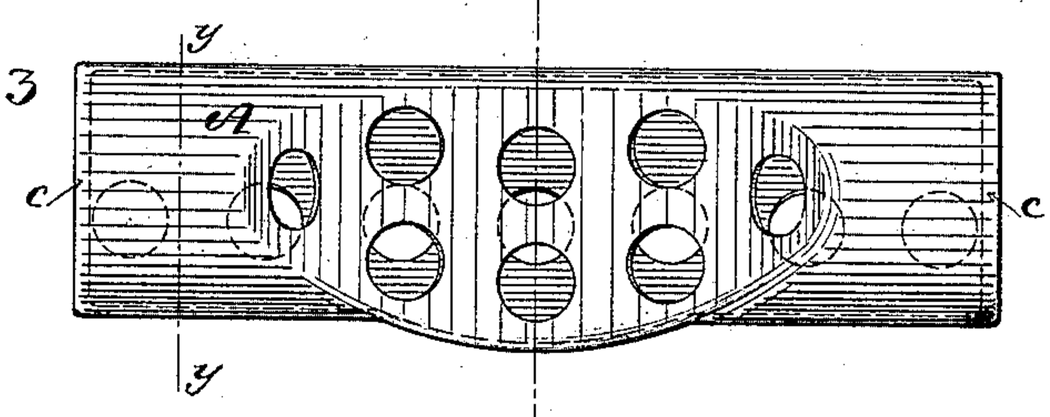
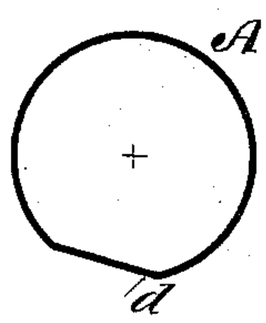
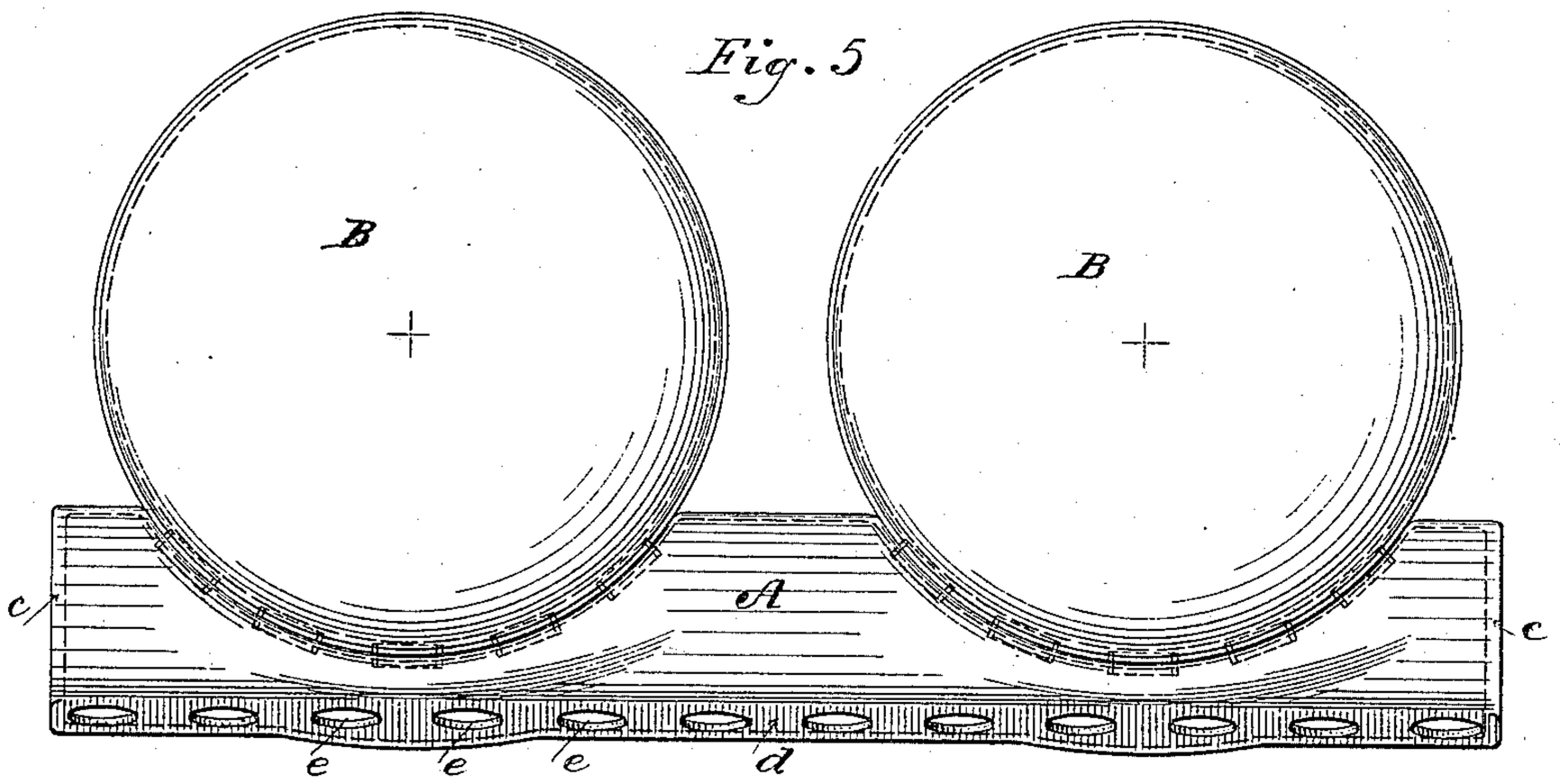


Fig. 4



x

Fig. 5



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CONNECTING-BOX FOR SECTIONAL STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 368,602, dated August 23, 1887.

Application filed March 3, 1887. Serial No. 229,552. (No model.)

To all whom it may concern:

Be it known that I, OTTO MULLER, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Connecting-Boxes for Sectional Steam-Boilers, of which the following is a specification.

This invention relates to the construction of boxes for use in making connection between the drums of water-tube steam-boilers and the series of water-tubes; and the improvement consists in certain novel features relating to the manner of constructing said boxes, whereby their manufacture from wrought metal is facilitated.

For the purpose of enabling others skilled in the art to which my invention appertains to understand and use the same, I will proceed to describe the features of its construction, having reference to the accompanying drawings, and subsequently point out in the appended claims its novel characteristics.

Figure 1 is an end elevation of a drum and connecting-box in position thereon; Fig. 2, a sectional elevation at a right angle to Fig. 1 of the same in the plane *x x;* Fig. 3, a plan view of the connecting-box detached; Fig. 4, a cross-section of the same on the line *y y*, Figs. 1 and 3; and Fig. 5, a front elevation of a double drum-connecting box with drums connected thereon, shown in end elevation.

The connecting-box or manifold A, Figs. 1 to 4, inclusive, consists of a tube closed at the ends and flattened in saddle form on its upper side to fit the curvature of the side of the drum B, and the surface thus flattened is provided with numerous perforations, which match corresponding perforations in the adjacent side of said drum, whereby it may be connected therewith by means of nipples *a*. The opposite or lower side of the tubular box or manifold is flat throughout its length, presenting a surface, *d*, of sufficient width, as more clearly shown by Figs. 2 and 4, for the reception of perforations *e*, by which a series of water-tube sections may be connected with the drum in a manner common to such boiler. The flattened portion *d* may be inclined in either direction with relation to the horizontal axial plane of the drum or be parallel therewith. The ends *c* of the tube A are formed of plates welded therein or otherwise secured in place.

It will be observed that the portion of the tube central to the saddle formation is broadened, giving it a secure bearing upon the side of the drum and permitting the production of said formation directly by the collapsing of a round tube, the circumference remaining the same, as shown.

The connecting-box may be elongated and constructed with a series of two or more saddle-depressions for the reception of a corresponding number of drums, as indicated by Fig. 5, the said drums being thereby communicated with one another, together with the water-tube communication, or irrespective of the latter.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A wrought-metal connecting-box for a water-tube boiler, consisting of a tube perforated on one side for the reception of tubes and flattened in saddle form upon another side for the reception of a drum, substantially as specified.

2. A wrought-metal connecting-box for water-tube boilers, consisting of a tube closed at the ends and flattened upon one side in saddle form for the reception of two drums, whereby a connection is made between the drums, substantially as specified.

3. A wrought-metal connecting-box for water-tube boilers, consisting of a tube closed at the ends, one side perforated for the reception of tubes and the other side flattened in saddle form in two places for the reception of two drums, whereby a connection is made between the tubes and the drums, and also between the drums, substantially as specified.

4. A wrought-metal connecting-box for water-tube boilers, consisting of a tube flattened upon one side in a saddle form and perforated to admit of being connected to a drum lying in said saddle by means of nipples fixed into said perforations, substantially as described.

5. A wrought-metal connecting-box for water-tube boilers, consisting of a terminally-closed tube perforated upon one side for the reception of tubes, and flattened upon another side in a saddle form, and perforated to admit of being connected to a drum lying in said saddle by means of nipples fixed in said perforations, substantially as specified.

OTTO MULLER.

Witnesses:
CHAS. W. FORBES,
AUG. CREVELING.