

(No Model.)

A. C. MANN.

GRATE BAR.

No. 275,679.

Patented Apr. 10, 1883.

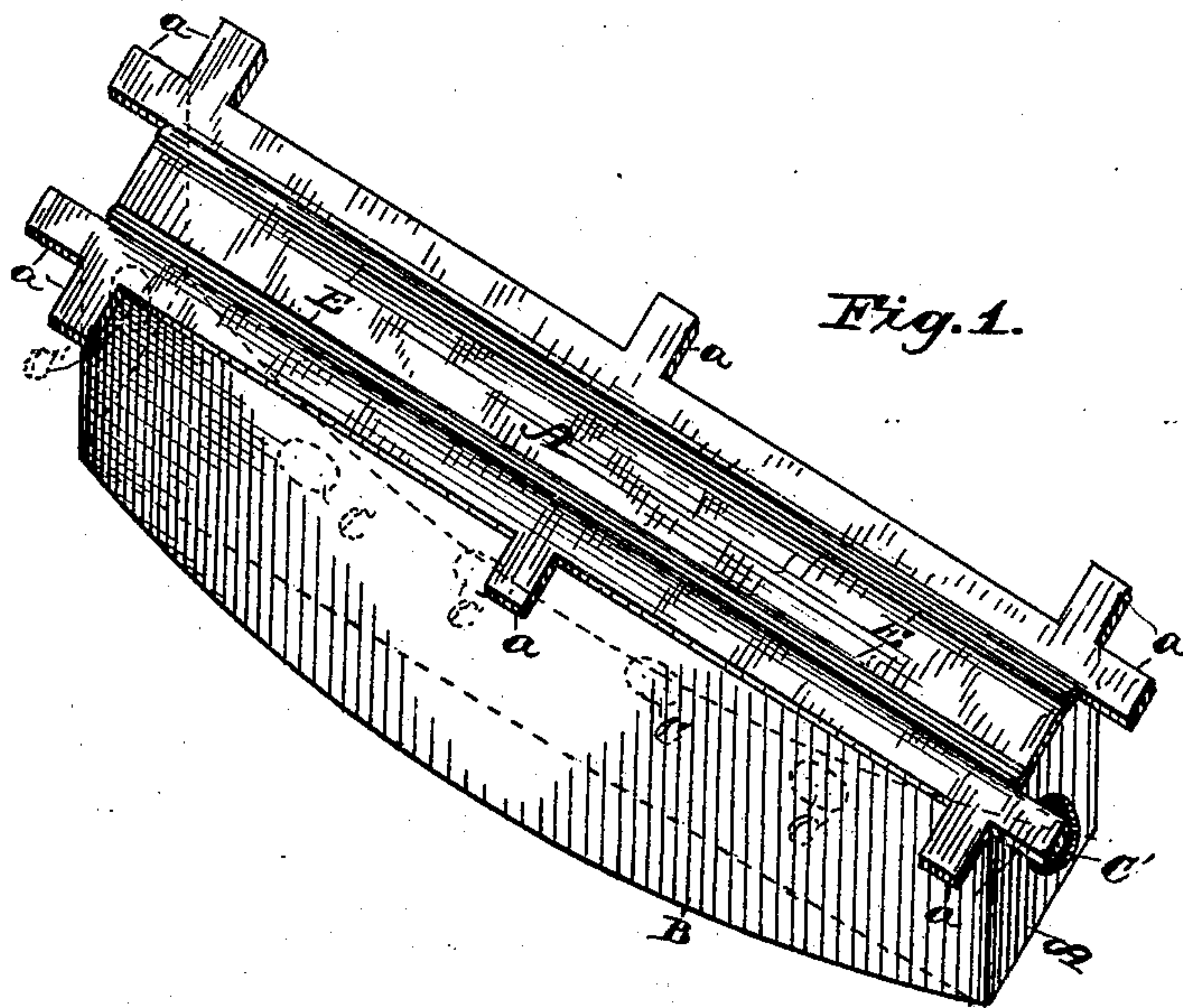


Fig. 2.

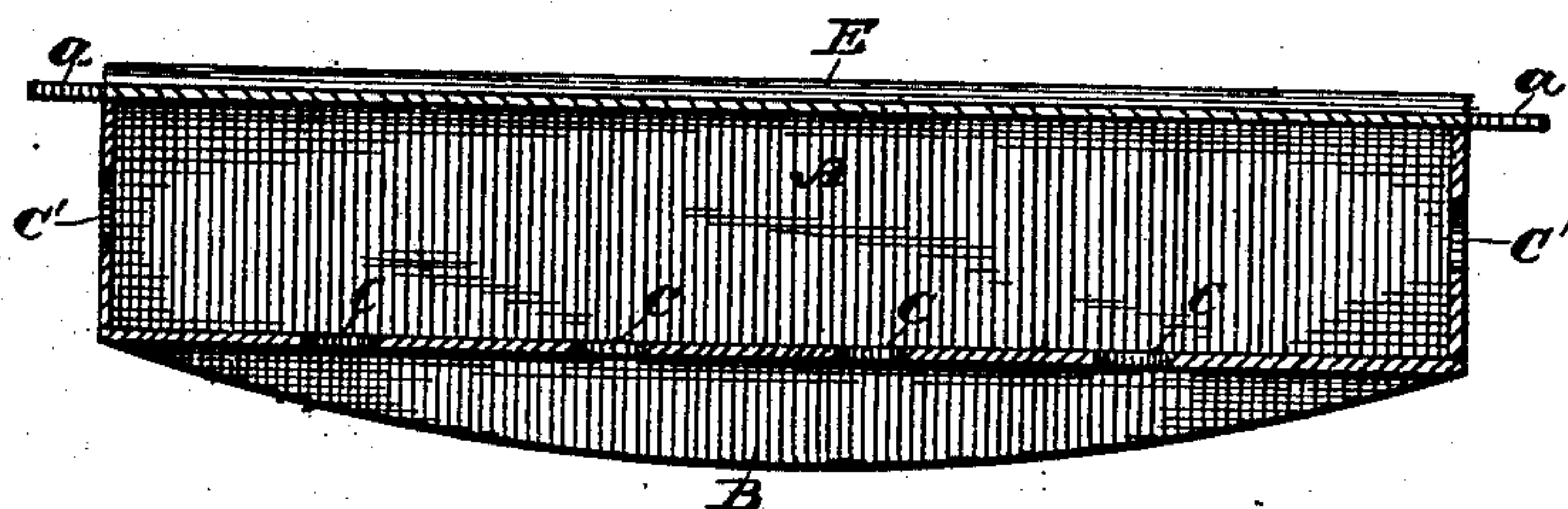
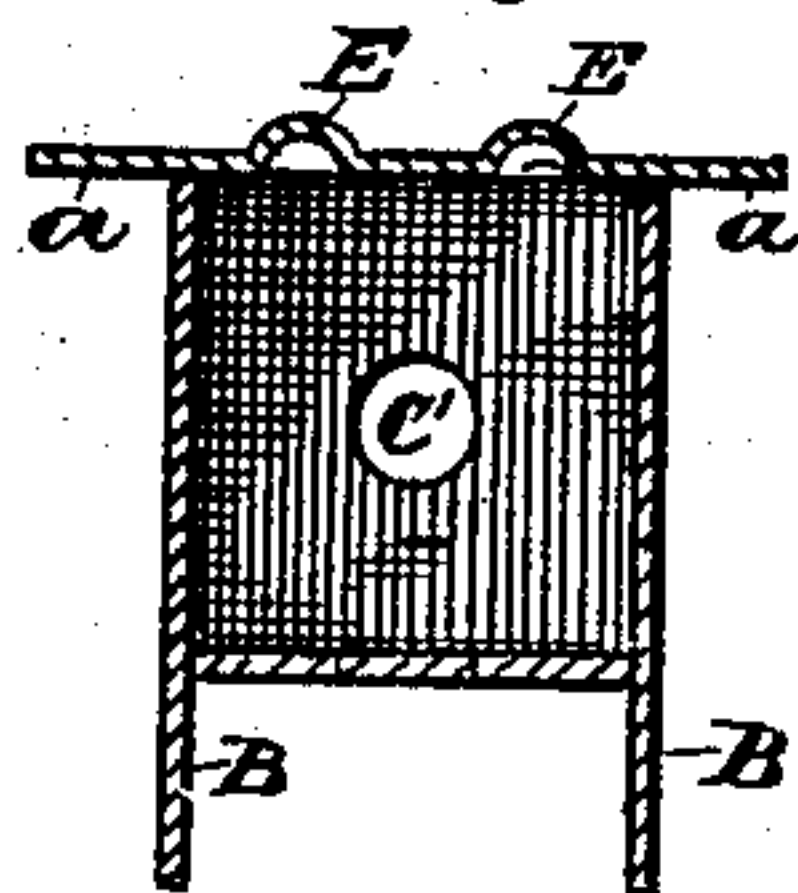


Fig. 3.



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UNITED STATES PATENT OFFICE.

AMOS C. MANN, OF ST. LOUIS, MISSOURI.

GRATE-BAR.

SPECIFICATION forming part of Letters Patent No. 275,679, dated April 10, 1883.

Application filed November 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, AMOS C. MANN, of the city of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Grate-Bars, of which the following is a specification.

This invention relates to all that class of grates used generally in connection with steam boilers and furnaces; and its object is to produce a grate-bar which shall be lighter, stronger, and more durable and cheaper than the ordinary grate-bars, and which will secure a more perfect combustion of the fuel.

To this end the invention consists of a hollow bar or casting having an aperture at each end and similar apertures along the lower face of the bar to allow the heated air in the interior of the bar to escape.

In order that my invention may be more fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved grate-bar. Fig. 2 is a longitudinal vertical section, and Fig. 3 a vertical transverse section, thereof.

My improved grate-bar A is cast hollow, as shown, and provided with lugs *a* to support it in the fire pot or chamber. The base of the

grate bar is provided at its sides with downwardly-projecting longitudinal flanges B to increase the strength of the bar. Situated at suitable distances along the base of the bar are apertures C, opening into the hollow interior of the bar, and in the ends of the bar are similar apertures, C', so as to admit of a constant current of air passing upward through the apertures C and out of the apertures C', and thus serve to keep the bar from being burned. To further this end, and to prevent the formation of clinkers setting and forming a close mass on the bars, I form longitudinal ridges E on the upper side of the same, which aid in keeping the fire open, and so facilitate the production of greater heat with less fuel.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

A hollow grate-bar provided with apertures C C C C upon the bottom and C' C' upon the ends thereof, for the purpose described, having ridges upon its upper surface, flanges upon its lower surface, and lugs at its sides and ends, as and for the purposes set forth.

AMOS C. MANN.

Witnesses:

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