

J. E. GAYLORD.
Grate-Bars.

No. 156,783.

Patented Nov. 10, 1874.

Fig. 1.

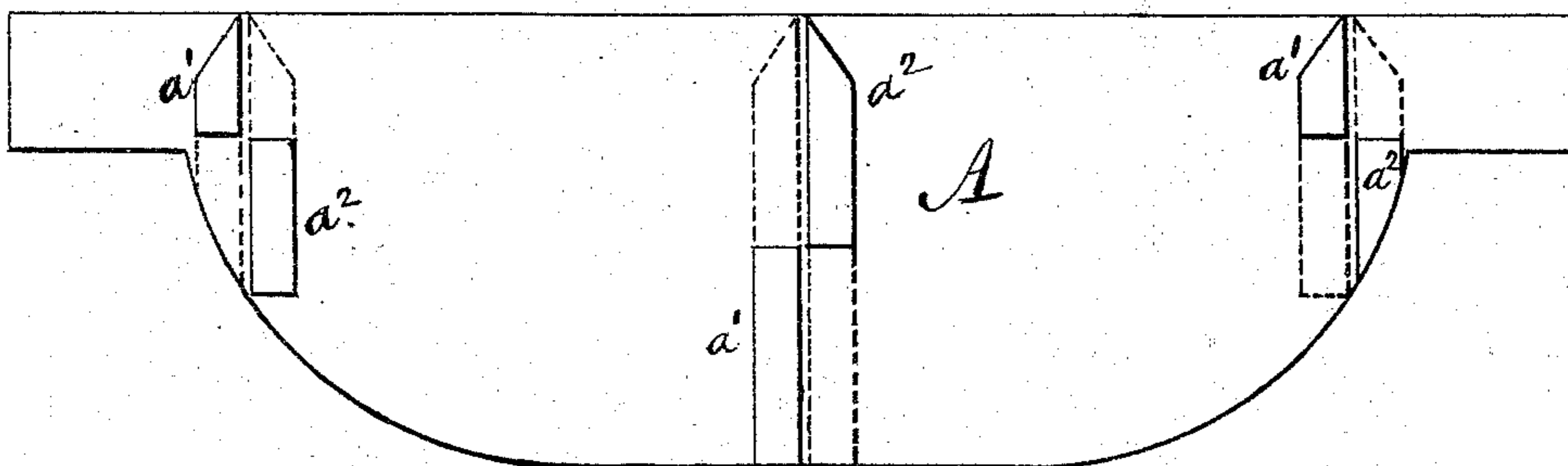
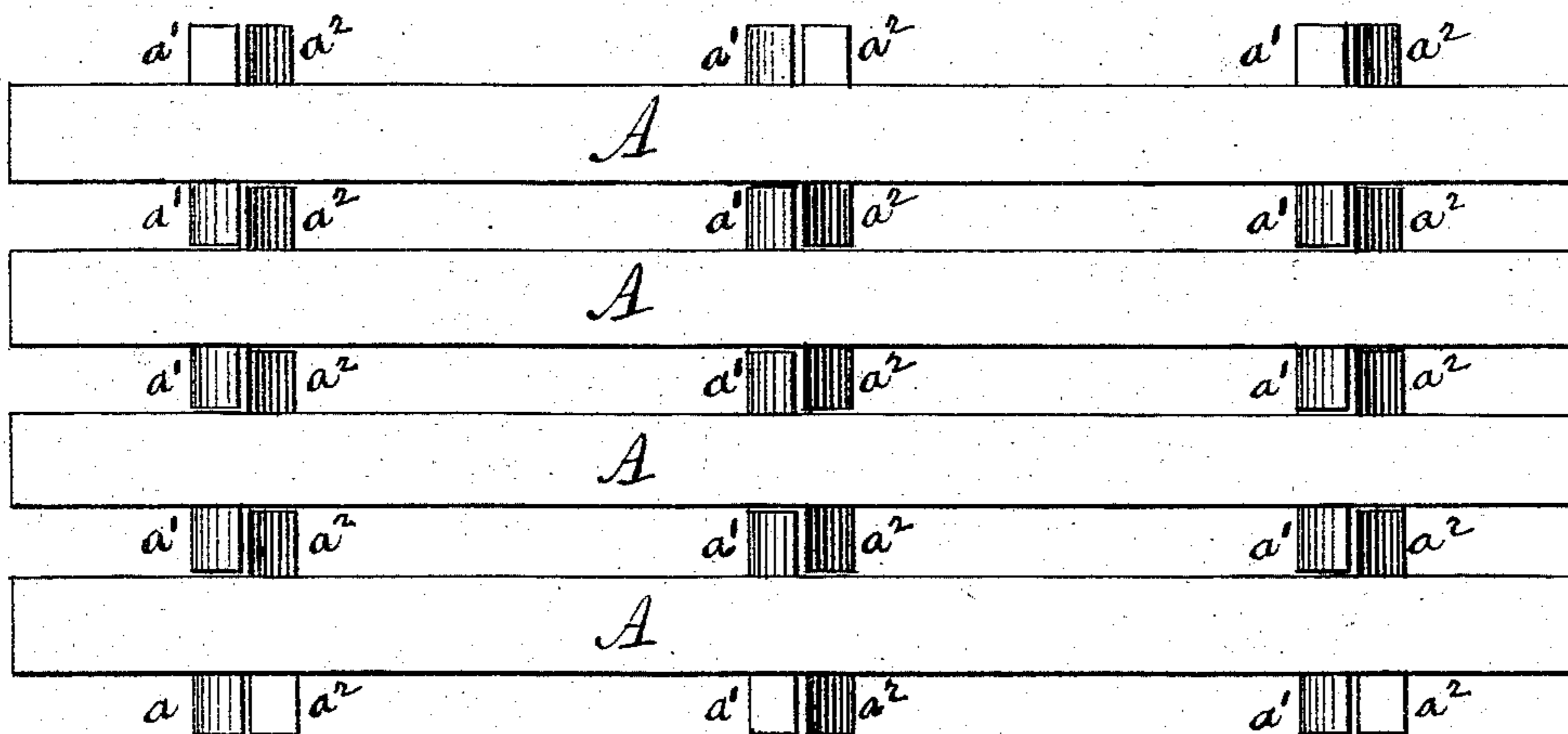


Fig. 2.



Witnesses.

John Becker
Fred. Haynes

J. E. Gaylord
by his Attorney
Rowntree Allen

UNITED STATES PATENT OFFICE.

JARED E. GAYLORD, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN GRATE-BARS.

Specification forming part of Letters Patent No. **156,783**, dated November 10, 1874; application filed October 2, 1874.

To all whom it may concern:

Be it known that I, JARED E. GAYLORD, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improved Grate-Bar, of which the following is a specification:

My invention consists in a novel system of projections formed on the sides of the grate-bar, whereby two or more bars, placed side by side, are very effectually locked together and prevented from displacement either vertically or longitudinally.

In the accompanying drawing, Figure 1 is a side view of my improved grate-bar. Fig. 2 is a top view, showing a number of bars placed side by side.

The grate-bar A is of any suitable form, preferably straight on the upper side and curved on the lower side, with projecting ends for engagement with the bearers for supporting the grate. On each side of the bar A are projections $a^1 a^2$, arranged in pairs diagonally with relation to each other. There may be any desired number of pairs of these projections, but in the drawing I have shown three pairs as sufficient for illustration—namely, one pair at each end and one pair midway between the ends. The projections in each pair are located diagonally with relation to each other, those marked a^1 being at the left-hand side of the pair and those marked a^2 being at the right-hand side. On one side of each bar the projections a^1 are near the top of the bar, in the pairs nearest the ends, and near the bottom of the bar in the central pair; and the projections a^2 are near the bottom of the bar in the pairs nearest the ends, and near the top of the bar in the central pair, as shown in Fig. 2, and in full lines in Fig. 1. On the opposite side of each bar the projections are located in positions the reverse of that above

described, as shown in Fig. 2 and in dotted lines in Fig. 1. In consequence of this arrangement the projections on one side of each bar pass over and under the projections on the other side of the adjoining bar, and the bars are thus prevented from displacement in any direction. By arranging the projections so as to interlock with each other in the manner described there is no necessity for providing recesses in the bars for the reception of the ends of the projections, and consequently there can be no accumulation of dust and ashes between the bars, the upper portions of the projections $a^1 a^2$ being beveled, as shown, so that the dust and ashes will not collect, but will fall between the bars. Moreover, if desired, there may be a slight space left between the contiguous angles of the projections $a^1 a^2$, sufficient to allow dust and ashes to fall between them; but such space must not be sufficient to allow too much play between the projections in the direction of the length of the bars.

I am aware of the patent of Van Wageningen, dated May 28, 1872, and I disclaim the construction of grate-bar therein described.

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

A grate-bar constructed with the projections $a^1 a^2$, the said projections being arranged on opposite sides of the bar at the upper and lower edges of the same, as shown, whereby, when a series of the bars are in position, the projections on one of the bars will bear against and beneath the projections on the adjacent bars, as and for the purpose set forth.

JARED E. GAYLORD.

Witnesses:

JOHN TYRRELL,
WILSON L. PIERPONT.