W. E. Northen.

Fire Proof Lathing.

No 23,877. Patented May 3, 1859.

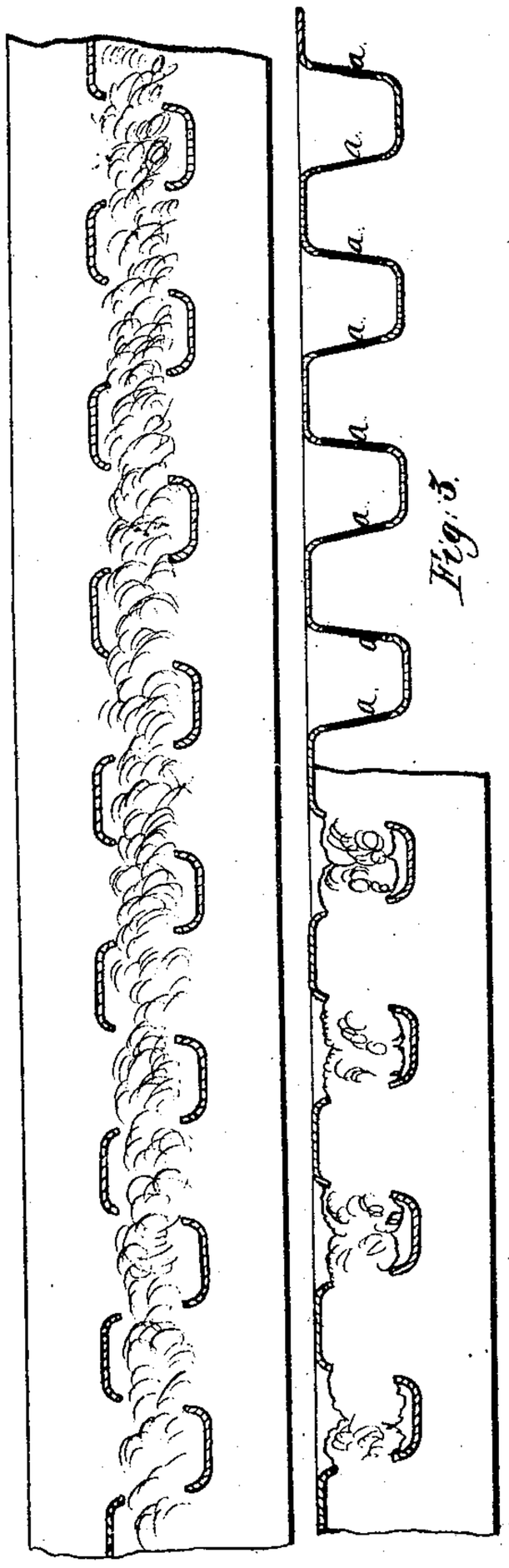

Fig. 4.

Fig. 3.

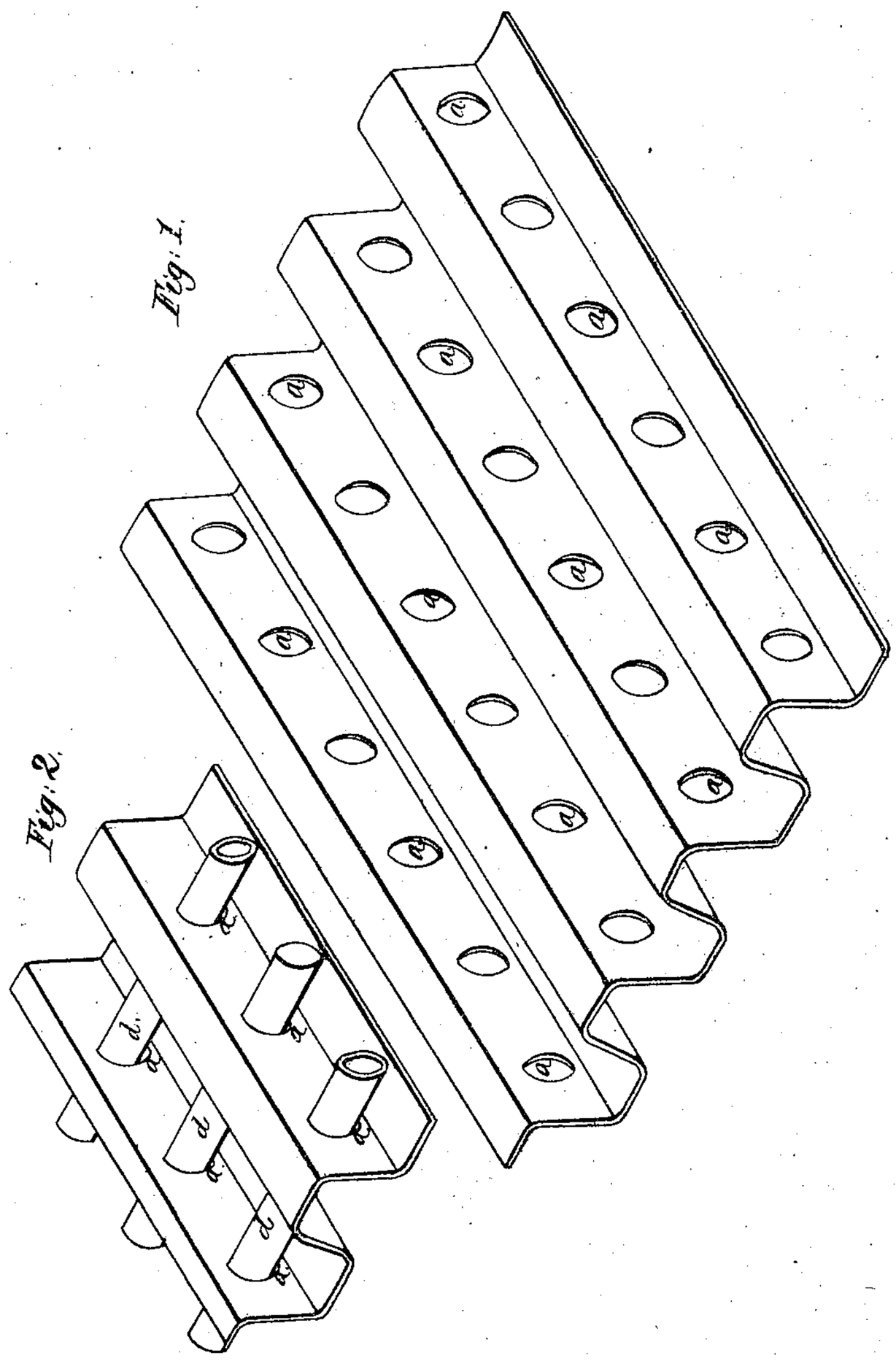

Fig. 1.

Fig. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM E. WORTHEN, OF NEW YORK, N. Y.

IMPROVEMENT IN METALLIC LATHS.

Specification forming part of Letters Patent No. **23,877**, dated May 3, 1859.

To all whom it may concern:

Be it known I, WILLIAM E. WORTHEN, of the city, county, and State of New York, have invented a new and useful Article Suitable for Lathing Fire-Proof Partitions in Buildings, and for other Purposes; and I do hereby declare that the following specification, taken in connection with the drawings, is a full, clear, and exact description thereof.

In the drawings, Figure 1 is a perspective view of the article itself; Fig. 2, a perspective view of the same in combination with certain rods or tubes. Fig. 3 is a horizontal section through Fig. 1, applied as lathing, showing the plastering on one side thereof; and Fig. 4 is a horizontal section through the same, applied as a partition, with plastering on both sides thereof, each of these two latter figures showing the lock-in bond between the plaster and the sheet metal.

The object of my invention is to produce an article to be used in buildings suitable for lathing and partitions and other purposes less costly than that heretofore patented by me and equally useful, the article secured to me by my patent, dated on the 24th day of February, A. D. 1857, being corrugated metal provided with certain tongues or projections formed out of the body of the metal, and such tongues being the bodies around which the lock of the plastering was formed. After experimenting I have discovered that a sufficiently safe lock in lathing or where there is no great weight of plaster may be secured without the use of such tongues, or that by substituting for them other tongues formed out of different pieces of metal any required amount of lock may be obtained, and the nature of the first part of my invention consists in a sheet of corrugated metal pierced with holes, substantially as hereinafter specified, and the nature of the second part of my invention consists in combining with corrugated sheets thus pierced tubes or strips of metal or rods slipped into such holes, substantially in the manner and for the purposes hereinafter specified.

In order to make sheets which when completed are my invention, I take sheet metal of thickness suitable for the purpose intended, and, by means of any proper machinery, corrugate it, the shape of the corrugations being unimportant, so long as they are deep enough to admit of a body of plastering or cement sufficient to make a proper lock. When thus corrugated, I pierce it with holes, such as *a a a*, whose precise shape, arrangement in the sheets, and number are unimportant, the only necessary direction being that they should, if plastering is to be applied, be large enough to admit a sufficient mass of plaster to make a strong lock, numerous enough to form these locks at proper distances, and not so many in number as to materially weaken the corrugated sheets.

Fig. 1 represents a size, number, and position of holes well adapted for common lathing, considering that drawing as full size.

The sheets may be punched before they are corrugated; but this practice is not so good, as there is some difficulty in registering the punching so that the holes will be in proper place when the article is finished. When done, if used for lathing, it is to be nailed against or attached to beams or studs, and then the plastering is to be applied, which in its soft state will be forced by the trowel through the holes and make a lock substantially such as is shown in Fig. 3.

If the article is to be applied as a whole partition, the corrugations should be deep enough to secure strength, and the line of gutters in the corrugations is to run from the floor to ceiling. Plastering may then be applied on each side, and the lock will be as in Fig. 4. If the corrugations be deep and the troughs or gutters wide, as when strong partitions are required or floors are made out of corrugated iron, the points of lock would probably be too far apart or the weights of plaster necessary to fill the corrugations might be greater than advisable. In such cases, or even in ordinary lathing, where deemed advisable, I take small rods or tubes, such as *d d d*, and pass them through the holes, as shown in Fig. 2, and then plaster on either one or both sides. The lock of plaster will then be chiefly around the tubes or rods; but the ultimate connection of the plaster to the corrugated sheets will be by means of the holes, as in the former cases.

I have by actual experiment proved the ef-

ficiency of the lock either in the holes only or by means of tubes or rods combined with pierced or corrugated sheets.

I claim as of my own invention—

A corrugated pierced sheet of metal substantially such as herein specified, either with or without rods or tubes passed through the apertures, substantially in the manner and for the purposes specified.

In testimony whereof I have hereunto subscribed my name in the city of New York on this 25th day of February, A. D. 1858.

W. E. WORTHEN.

In presence of—
J. J. ALTHOUSE,
WM. LEE.