

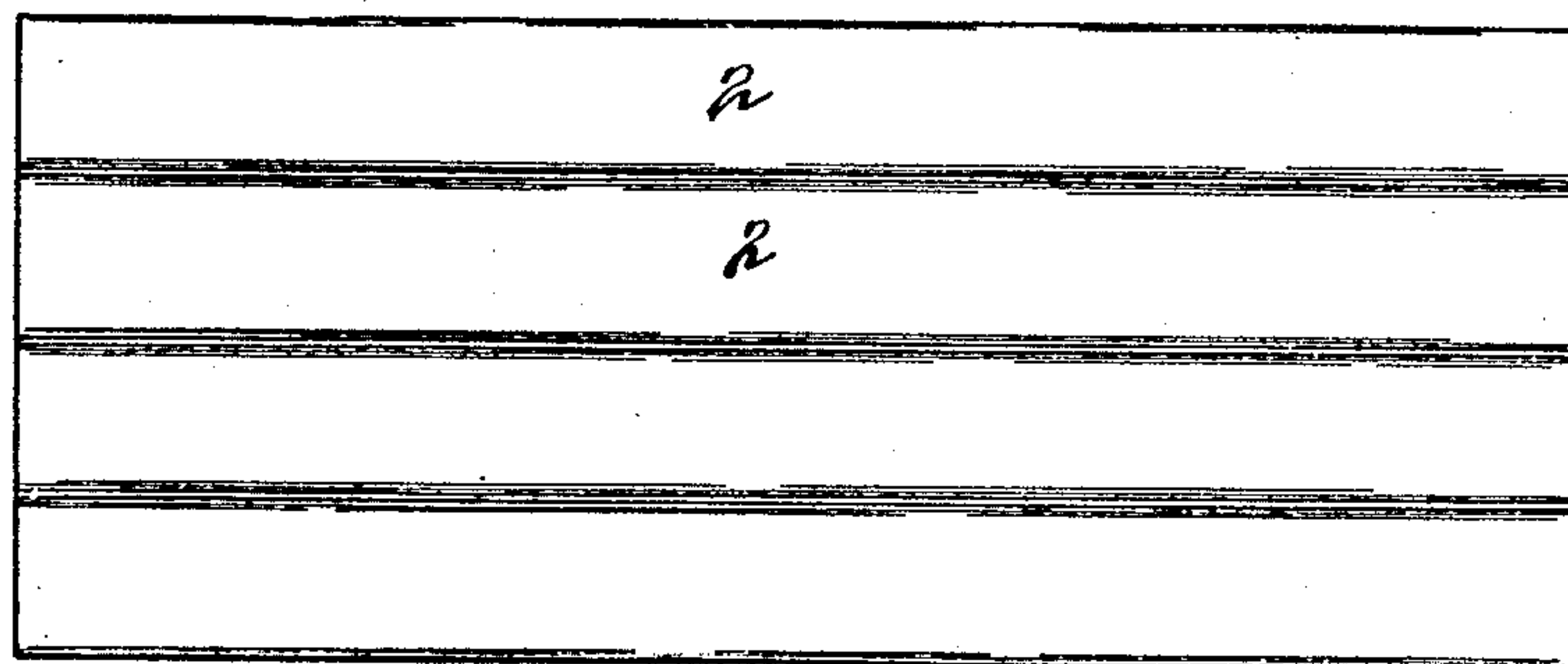
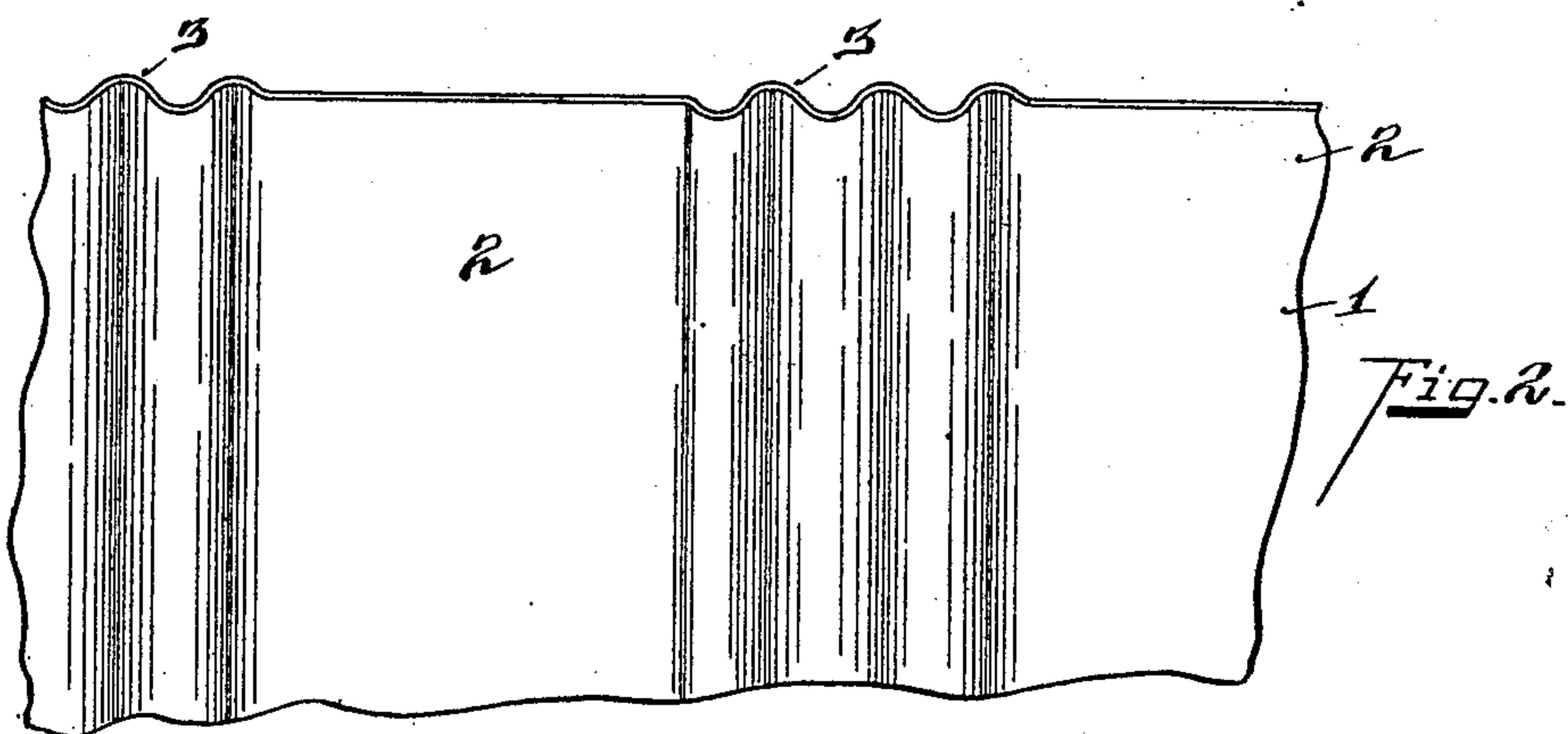
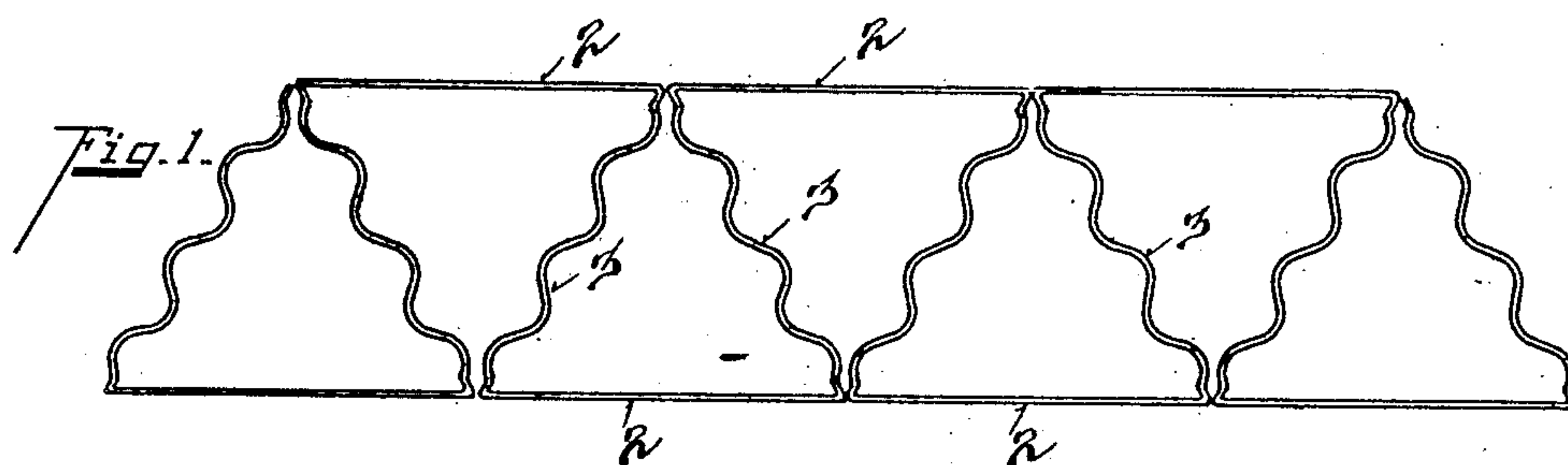
52-630

No. 849,502.

PATENTED APR. 9, 1907.

J. M. RUDE.
CELLULAR STEEL STRUCTURE.
APPLICATION FILED APR. 21, 1906.

2 SHEETS—SHEET 1.



Inventor

Witnesses

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2 SHEETS—SHEET 2.

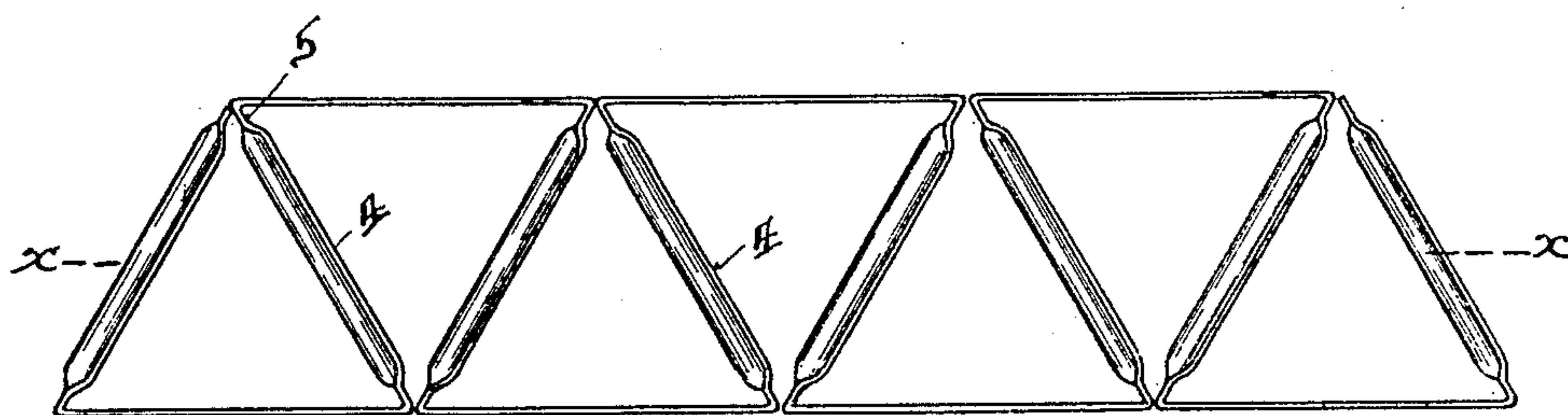


Fig. 4.

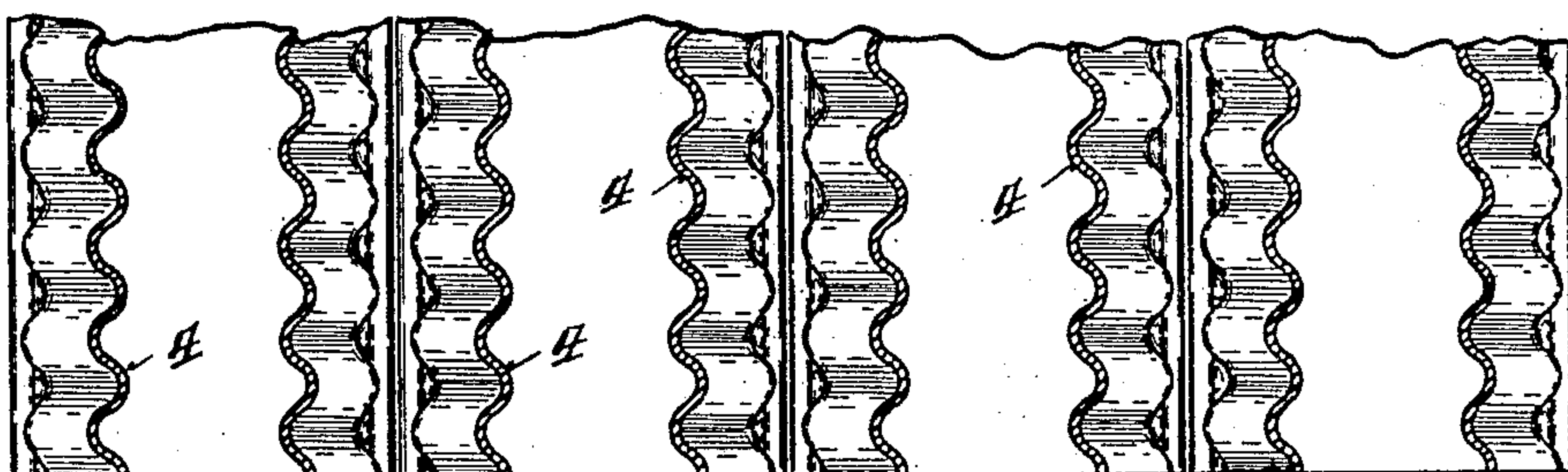


Fig. 5.

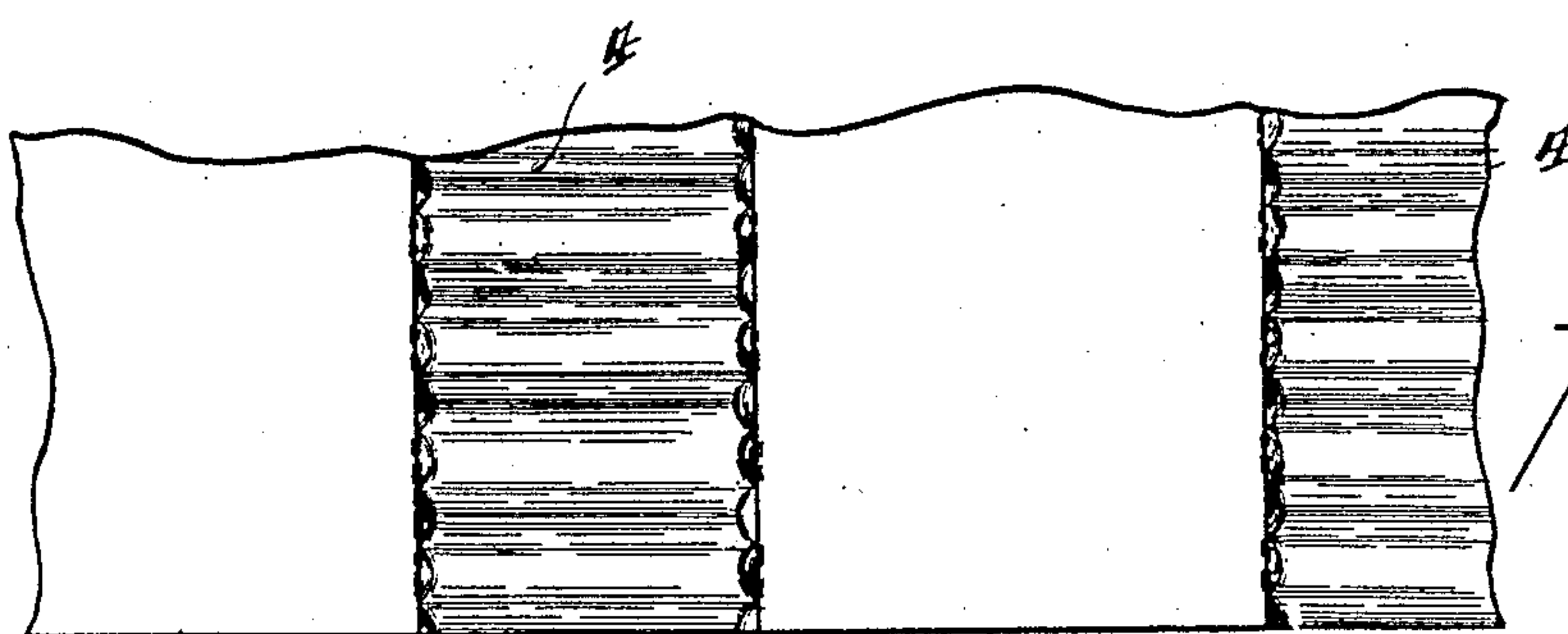


Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES M. RUDE, OF COVINGTON, KENTUCKY, ASSIGNOR TO NATIONAL CELLULAR STEEL COMPANY, OF NEW YORK, N. Y., A CORPORATION.

CELLULAR STEEL STRUCTURE.

No. 849,502.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed April 21, 1906. Serial No. 313,019.

To all whom it may concern:

Be it known that I, JAMES M. RUDE, a citizen of the United States, residing at Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Cellular Steel Structures, of which the following is a specification.

My invention relates to an improved cellular structure for forming walls, partitions, ceilings, &c., of fireproof buildings.

The invention is specifically an improvement on the structure shown in the patent to E. F. Baude, No. 596,010, patented December 21, 1897.

The features of the invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents an end view of the structure. Fig. 2 is a plan view of the blank. Fig. 3 is a top plan view of the completed structure. Fig. 4 is an end view of a modification. Fig. 5 is a section on line $x x$, Fig. 4. Fig. 6 is a plan view of the blank used in forming the modification.

1 represents a continuous sheet of metal, having the plain sections 2 and the corrugated sections 3 alternately intermediating. This blank is bent up so that it forms a series of cells substantially equilateral triangular-shaped in cross-section. The bending is such that the plain sections alternately fall on opposite sides, thereby forming two parallel plain-faced walls practically continuous, the space between which is divided by the corrugated sections into individual cells substantially equilateral triangular-shaped in cross-section. It will be seen that the plain sections form the bases of the triangles and the outside walls, while the corrugated sections form the equilateral sides of the triangular cells lying between the walls. I have found that by thus corrugating these partition-walls between the plain walls that I can use a much lighter gaged metal than with the structure shown in the said prior patent. I have also found that the corrugated intermediate walls of the cells form superior retain-

ing-surfaces for any filler which may be employed, such as mortar. It is obvious that plain or formed metal may be employed from which to make this structure.

The foregoing description refers to Figs. 1, 2, and 3, in which the corrugations extend in the direction of the length of the cells. Such structure is used for walls and partitions, and the corrugations extend in the vertical planes corresponding with the direction of strains.

In Figs. 4, 5, and 6 the structure is used for floors and ceilings. In this modification the corrugations extend transversely to the cells or in the direction of the width of the equilateral walls 5 of the cells. Thus the corrugations are caused to extend substantially parallel with the direction of strains.

Having described my invention, I claim—

1. A cellular building structure formed of a continuous sheet of metal bent to form two parallel walls with plain surfaces, the space between which is divided by corrugated sections into individual cells substantially equilateral triangular-shaped in cross-section, substantially as described.

2. A cellular building structure formed of a continuous sheet of metal bent to form two parallel walls with plain surfaces, the space between them being divided by corrugated sections of the sheet to form individual cells, the corrugations extending lengthwise of the cells, substantially as described.

3. A fireproof structure formed of cells equilateral triangular-shaped in cross-section, the bases of said triangles being plain surfaces, the bases of the first, third and fifth cells abutting on one side, the bases of the second, fourth and sixth cells abutting on the other side, the equilateral sides of the triangles being corrugated and extending between the walls formed by the bases, substantially as described.

In testimony whereof I have hereunto set my hand.

JAMES M. RUDE.

Witnesses:

OLIVER B. KAISER,
LUISE BECK.