

G. GIBBS.
FLOOR CONSTRUCTION.
APPLICATION FILED MAR. 27, 1905.

Fig. 1.

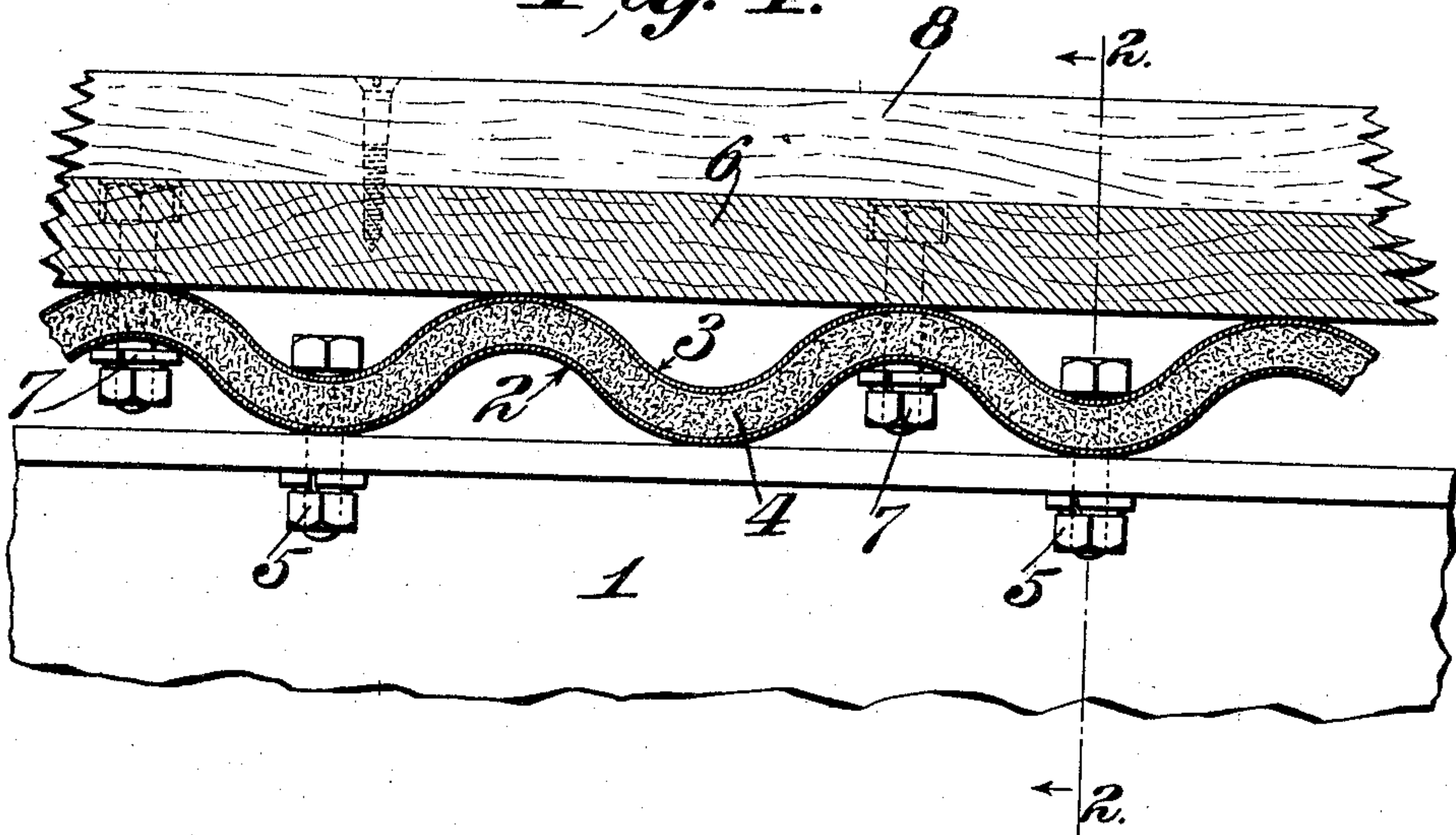


Fig. 2.

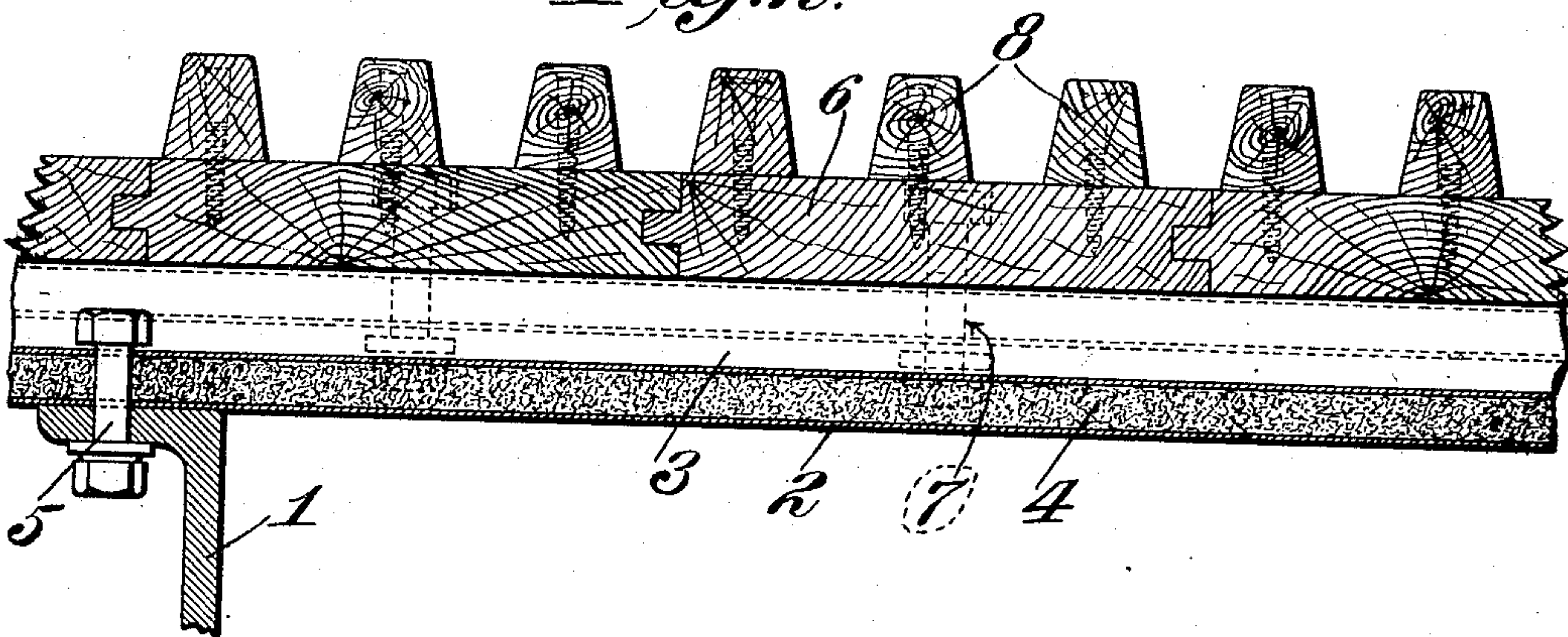


Fig. 3.

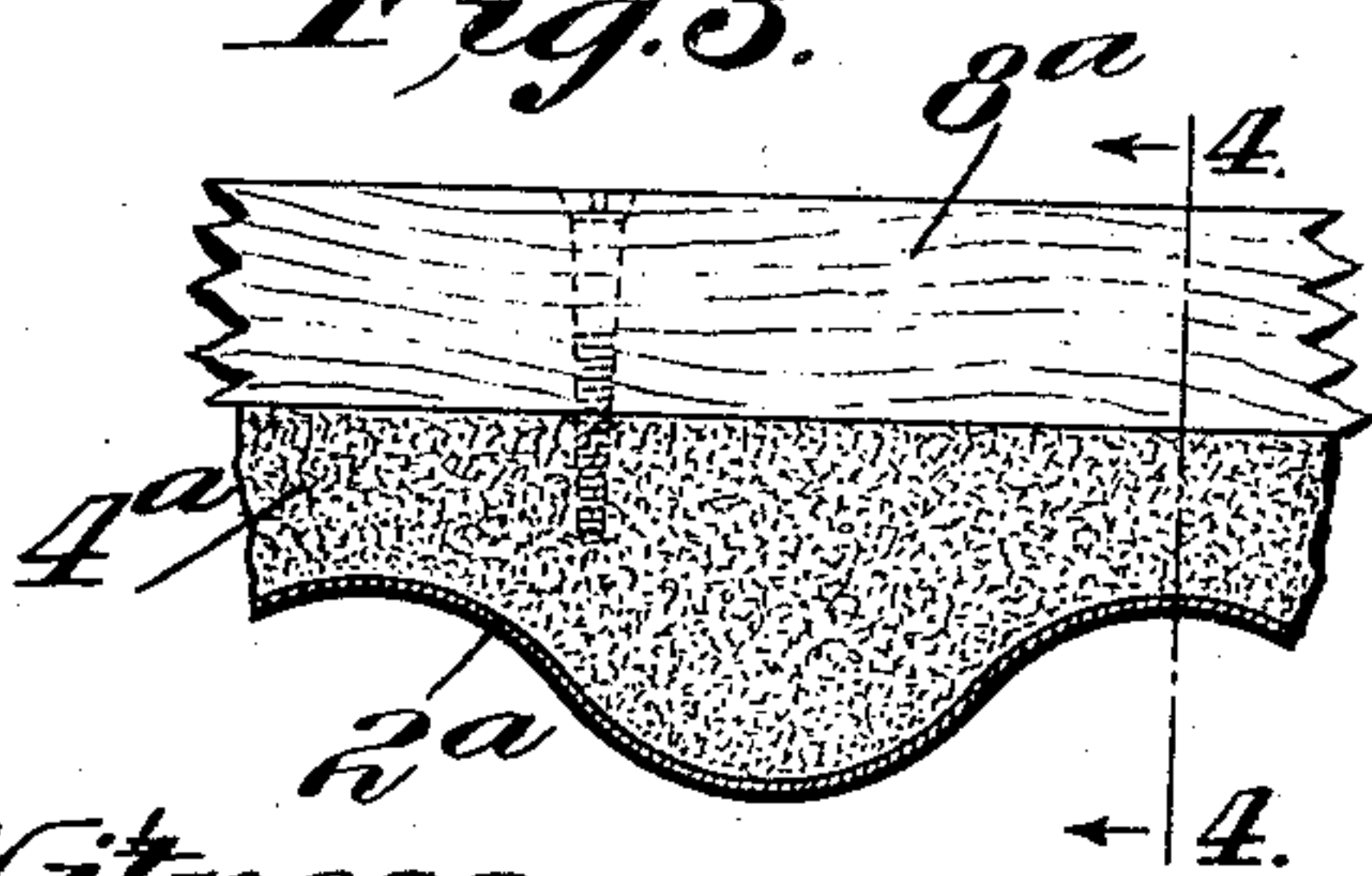
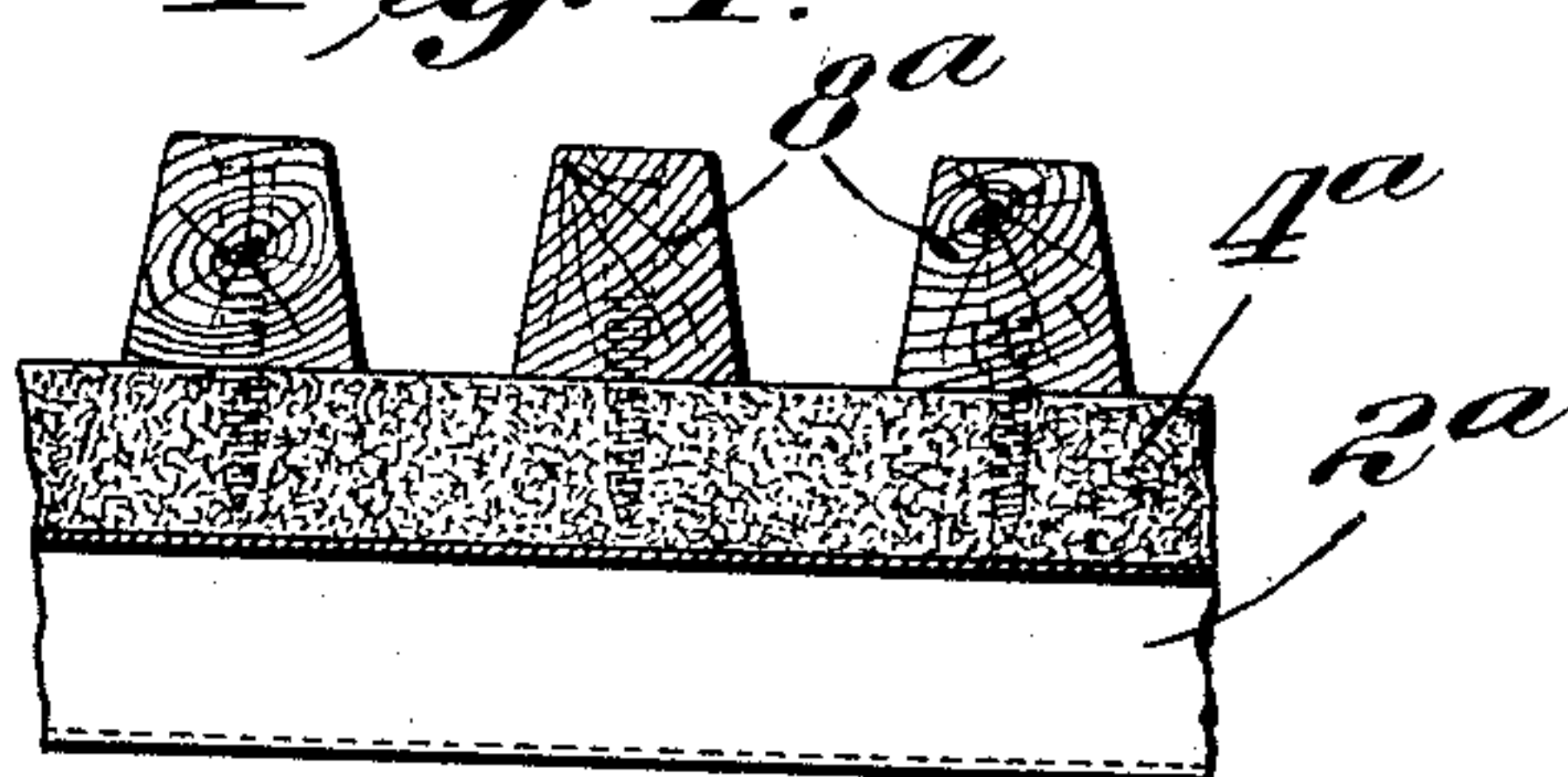


Fig. 4.



Witnesses:

G. A. Pennington
A. J. McCauley.

Inventor:
George Gibbs,
by Bakewell Cornwall,
Attys.

UNITED STATES PATENT OFFICE.

GEORGE GIBBS, OF NEW YORK, N. Y.

FLOOR CONSTRUCTION.

No. 799,323.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed March 27, 1905. Serial No. 252,232.

To all whom it may concern:

Be it known that I, GEORGE GIBBS, a citizen of the United States, residing at New York, State of New York, have invented a certain new and useful Improvement in Floor Construction, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view through my improved floor construction. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is a sectional view of a modified form of floor construction, and Fig. 4 is a sectional view on line 4 4 of Fig. 3.

This invention relates to a new and useful improvement in floor construction designed particularly for railway rolling-stock, although it is obvious that the same may be used in bridges, buildings, &c.

The object of this invention is to provide a fireproof and an electric-arc-proof flooring which in its construction is sufficiently rigid to carry the superposed floor-load between the sills or joists, as the case may be.

Another object of the invention, where it is used as a flooring for passenger-coaches in railway rolling-stock, is to have the same sound-deadening and also light and effective.

With these objects in view the invention consists in the construction, arrangement, and combination of the several parts, all as will be hereinafter described and afterward pointed out in the claims.

In the drawings, 1 indicates one of the longitudinal sills of the car-underframing; but it is obvious that in car construction there are two or more of such sills, and also that there may be cross sills or transoms forming the floor-supports at intervals, according to the character of the underframing employed by the designer. The underframe or substructure forms no part of my present invention. Upon the substructure, irrespective of its nature, my improved floor is designed to be placed, and this floor consists, according to the construction shown in Figs. 1 and 2, of two corrugated metal plates 2 and 3, the corrugations thereof matching or being in vertical alignment, so that the space between said plates is substantially of uniform width. This space is filled with fireproof insulating material 4 and is preferably a plaster composition known as "monolith," or it may be a composition includ-

ing asbestos as one of its constituent elements. The composite sheet, however, between the plates 2 and 3 forms a fireproof and an electric-arc-proof layer and from its serpentine shape is sufficiently stiff to assist in carrying the superimposed floor-loads. Suitable fastening devices 5 are provided to secure this metal-faced flooring to the substructure.

6 indicates a sheathing preferably composed of tongue-grooved flooring-strips constituting a wooden floor, which is secured to the metal-faced flooring by means of suitable securing devices 7. Upon this wooden floor are arranged floor-strips 8, secured in place by ordinary wood-screws, as shown. Where the flooring is used in railway rolling-stock these strips 8 run longitudinally of the car.

In Figs. 3 and 4 there is shown a modified form of floor construction in which there is a single corrugated metal plate 2^a, the fireproof insulation material 4^a being arranged thereon, and instead of having its upper face follow the contour of the corrugated sheet 2^a said upper face is made straight, so as to provide a flat surface. On this flat surface are arranged the wooden strips 8^a, whose securing wood-screws pass down into the fireproof insulation material 4^a.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A floor construction comprising parallel metal plates with an interposed filler of fireproof insulating material; substantially as described.

2. A floor construction comprising parallel, matching corrugated metal plates with an interposed filling of fireproof insulating material; substantially as described.

3. A floor construction for railway-cars comprising parallel plates so constructed as to support vertically-applied loads and fireproof insulating material arranged between said metal plates, and wooden strips on one of the plates; substantially as described.

4. The combination with a substructure, of parallel, corrugated metal plates secured thereto, a layer of fireproof insulating material interposed between said corrugated metal plates, and wooden strips which extend at an angle to

the corrugations in said plates; substantially as described.

5. In a floor construction for railway-cars, the combination with the members of the underframe, of a metal plate formed with corrugations extending transversely the longitudinal axis of the car-body, a layer of fireproof insulation material upon said corrugated metal plate, wooden strips upon said layer of material, said wooden strips extending longitudinally the car-body, and means for securing said wooden strips to the said layer of material; substantially as described.

6. The combination with a substructure, of

corrugated metal plates having an interposed layer of fireproof insulation material, means for securing said plates and interposed layer to said substructure, a wooden floor, means for securing said floor to said plates and interposed layer, and strips arranged upon said wooden floor; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 23d day of March, 1905.

GEORGE GIBBS.

Witnesses:

W. L. MURRAY,
H. S. JOHNSON.