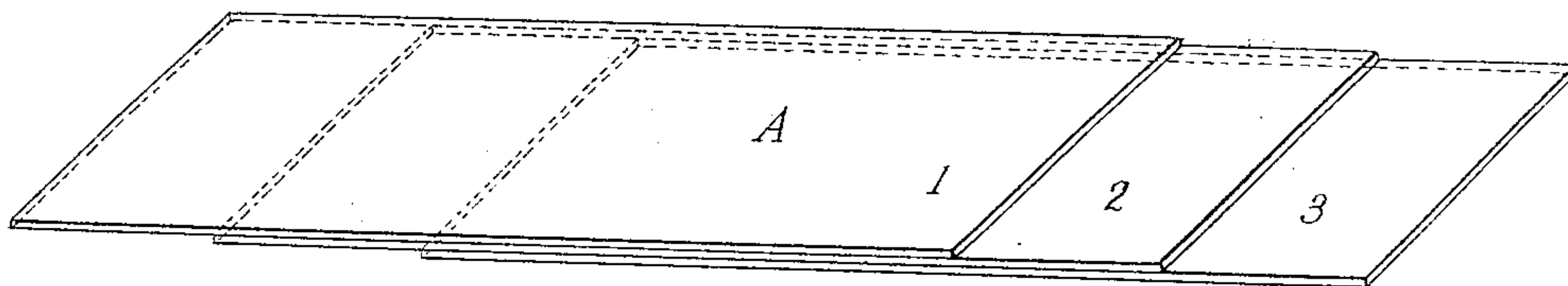


No. 805,746.

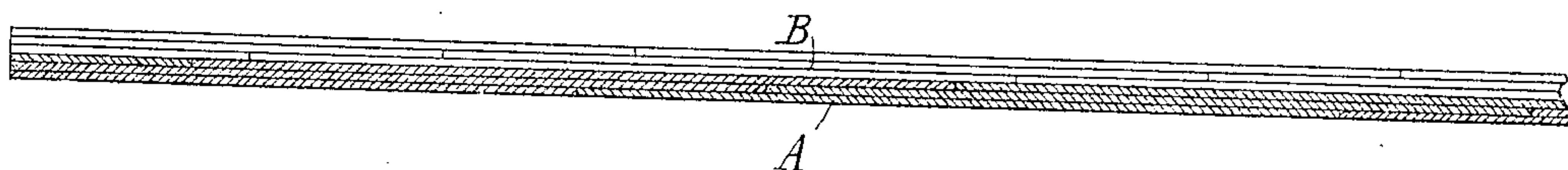
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F. N. PEASE.  
FELT WATERPROOF CONSTRUCTION.  
APPLICATION FILED JAN. 12, 1905.

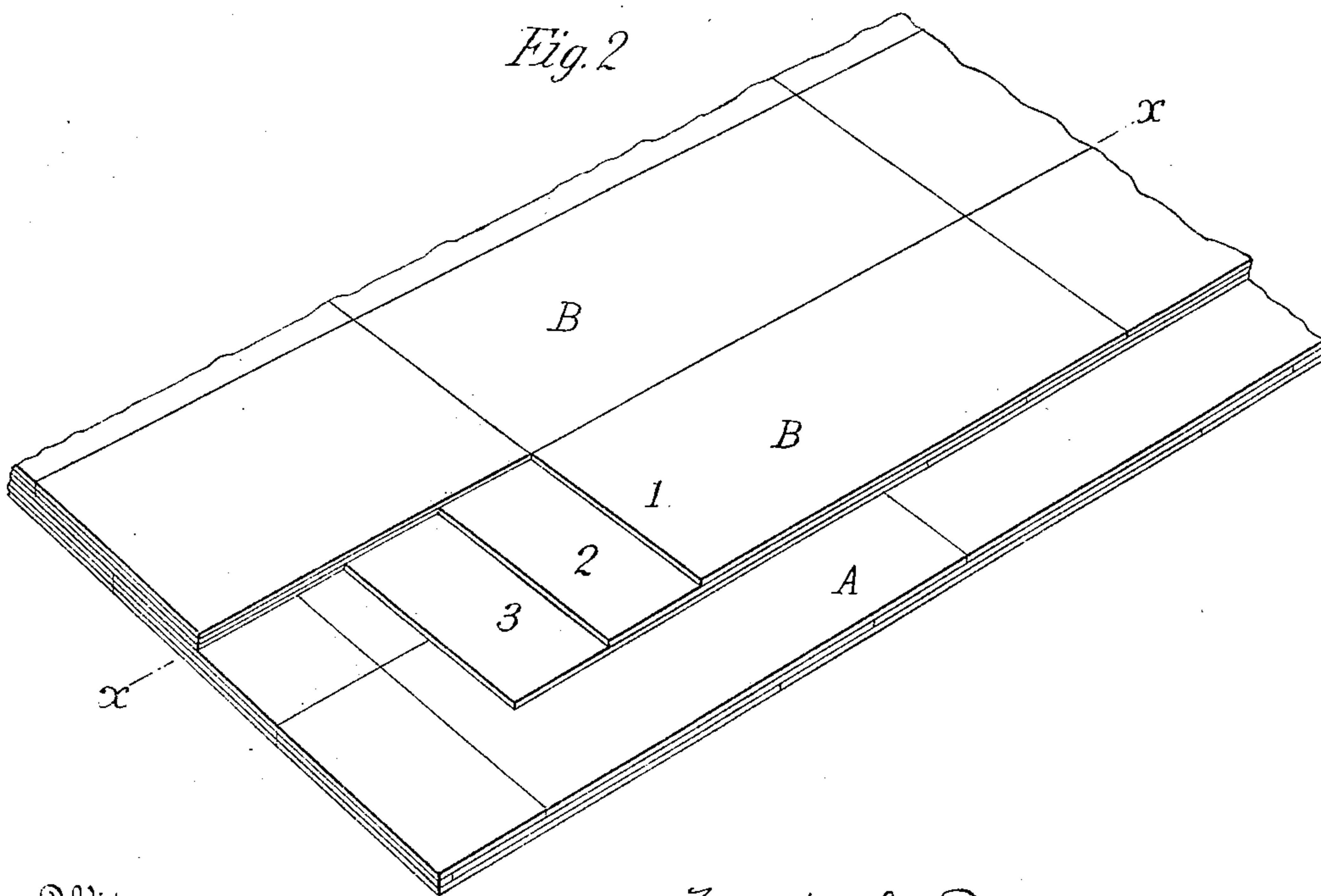
*Fig. 1*



*Fig. 3*



*Fig. 2*



Witnesses  
Raphaël Petter  
C. D. Morrill

Frederick H. Pease Inventor

By his Attorney J. D. Morrill

# UNITED STATES PATENT OFFICE.

FREDERICK N. PEASE, OF NEW YORK, N. Y.

## FELT WATERPROOF CONSTRUCTION.

No. 805,746.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed January 12, 1905. Serial No. 240,705.

*To all whom it may concern:*

Be it known that I, FREDERICK N. PEASE, a citizen of the United States, residing at No. 146 East Thirty-sixth street, borough of Manhattan, city, county, and State of New York, have invented new and useful Improvements in Felt Waterproof Construction, of which the following is a specification.

My invention relates to improvements in felt waterproof construction, its object being to provide felt sections of such size and form as to adapt it for use in constricted spaces, where the area of the surface to be covered at any one time is limited. It is necessary that the sections be of such dimensions and form that the waterproof layer or stratum can be completed over such area with the edges thereof in such condition that as adjacent surface is prepared the felt layer may be connected to that already laid and extended over the adjacent surface.

To this end my invention consists in providing compound or multi-ply sections of felt of suitable dimensions the superposed plies having their ends flush and edges parallel, but offset from each other, so as to constitute a stepped margin to the section. The several plies are cemented together and the entire section coated by suitable pitch or asphalt. Preferably two superposed sets or series of sections are used for the complete layer or stratum, and the number of plies in the sections are therefore such as to give the required ultimate thickness.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a built-up section. Fig. 2 is a perspective view of the waterproof layer, showing the several sections and the manner in which they are joined and overlapped; and Fig. 3 is a cross-section along line *xx* of Fig. 2.

The sections of the first series are designated for convenience as A and those of the second series as B. The size of the sections is such as is necessary for the location in which they are to be used—such as, for example, in the building of the arch of a masonry tunnel through rock excavation. The masonry surface being first prepared by applying a coating of plastic pitch thereto, a course of sections is laid with abutting ends

and edges parallel, the forward edge being stepped on its upper surface. Second and succeeding courses are then laid with edges overlapping and cemented to the underlying edges of the preceding course, the projecting edge of ply 1 abutting against the edge of a similar ply in the section already laid and resting upon ply 2 of the first section, and so on. The thickness of the layer thus formed is therefore uniform and consists of the same number of plies throughout. The first series of sections is then coated with pitch and the courses of the second series of sections B laid thereon in similar manner, but, as shown in Fig. 2, with end and side joints offset from the similar joints of the first series. Finally a coating of pitch is applied to the completed work. It will thus be seen that at no point in the completed work is there any joint which extends through more than the thickness of one section, while it is possible to readily connect other sections in the same manner and extend the work indefinitely in any direction.

I claim—

1. The combination of a layer made up of a series of similar superposed felt sections having their ends flush and edges parallel and uniformly offset, similar laterally-adjacent and overlapping series and abutting end-to-end series; and a similar superposed layer the side and end joints of which are severally offset from those of the underneath layer.

2. A waterproof layer of the class described, comprising a series of sections, each made up of a plurality of plies of felt with their ends flush and edges parallel and uniformly offset, said sections having their ends abutting and the edges of the adjacent courses severally overlapping, so that the total thickness is uniform, and a superposed series of sections similarly laid thereon with their lateral and longitudinal joints offset with relation to the joints of the first series.

In witness whereof I have hereunto set my hand at the city of New York this 11th day of January, 1905.

FREDERICK N. PEASE.

Witnesses:

J. T. CRANE,  
T. D. MERWIN.