

(No Model.)

2 Sheets—Sheet 1.

R. B. MEANY.
COLLAPSIBLE PNEUMATIC MATTRESS.

No. 598,054.

Patented Jan. 25, 1898.

Fig. 1,

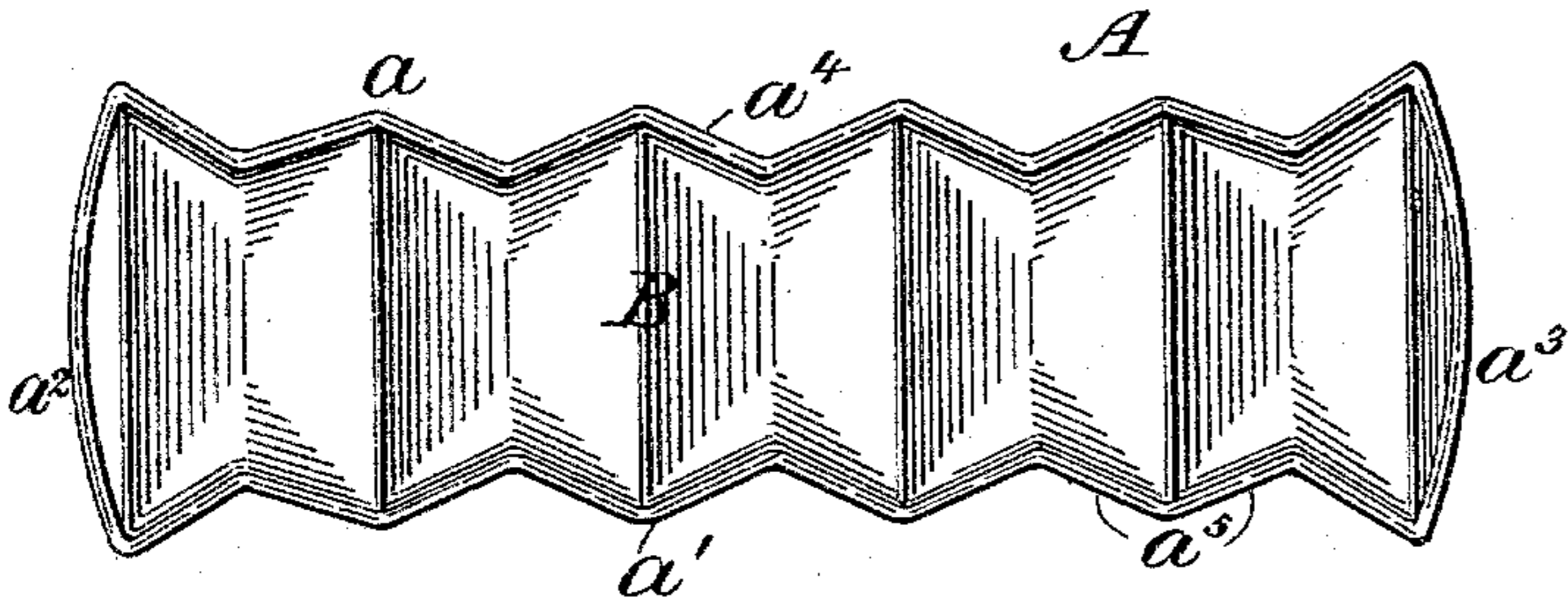


Fig. 3,

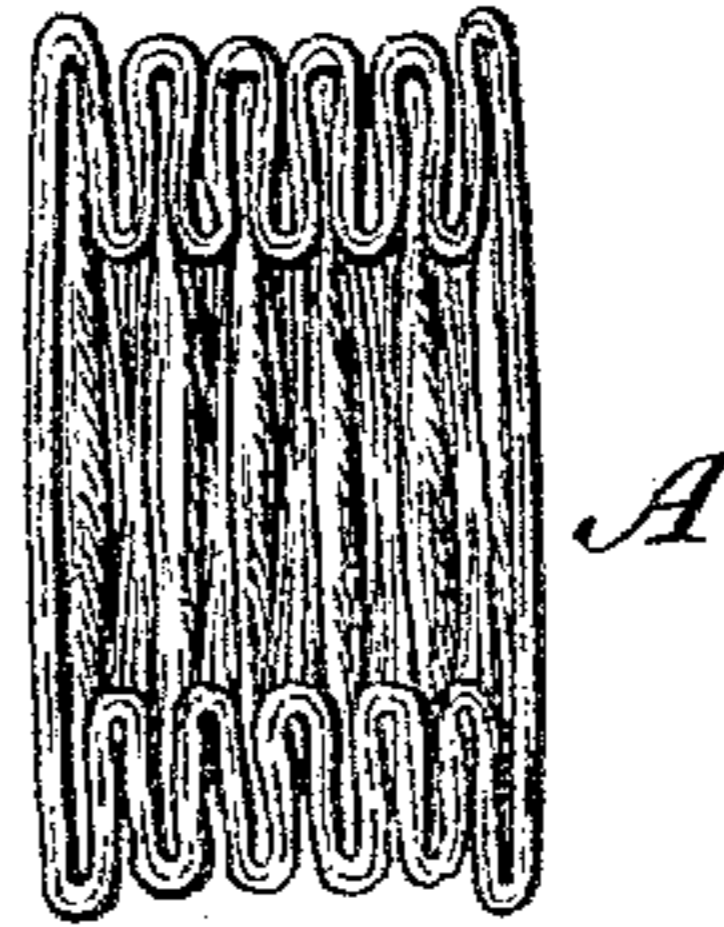


Fig. 2,

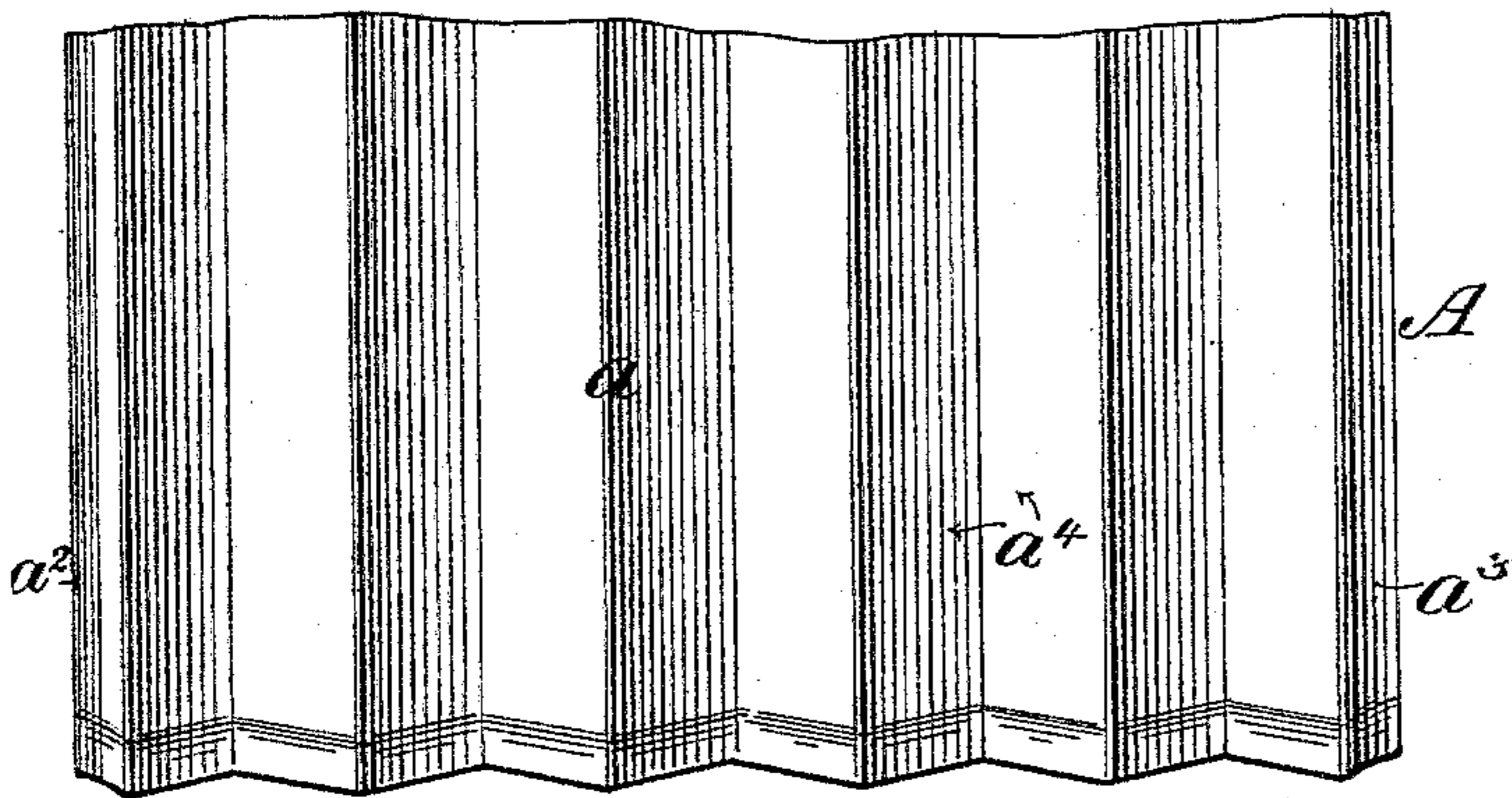


Fig. 5,

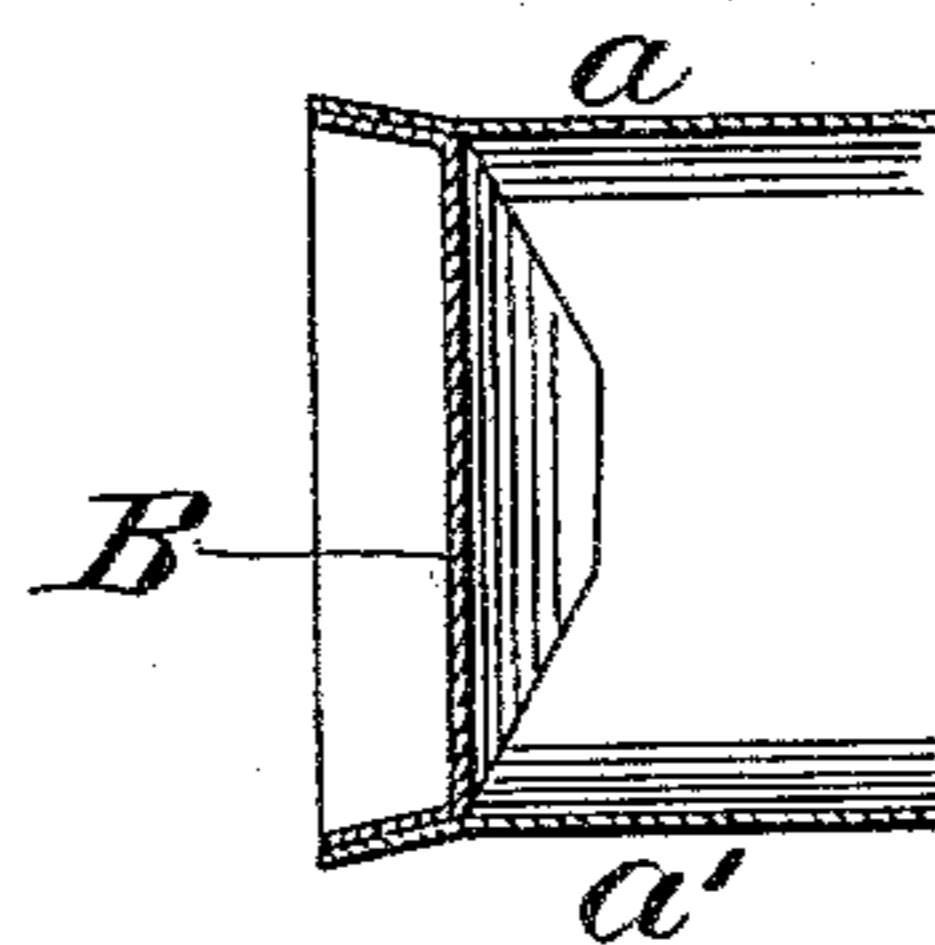
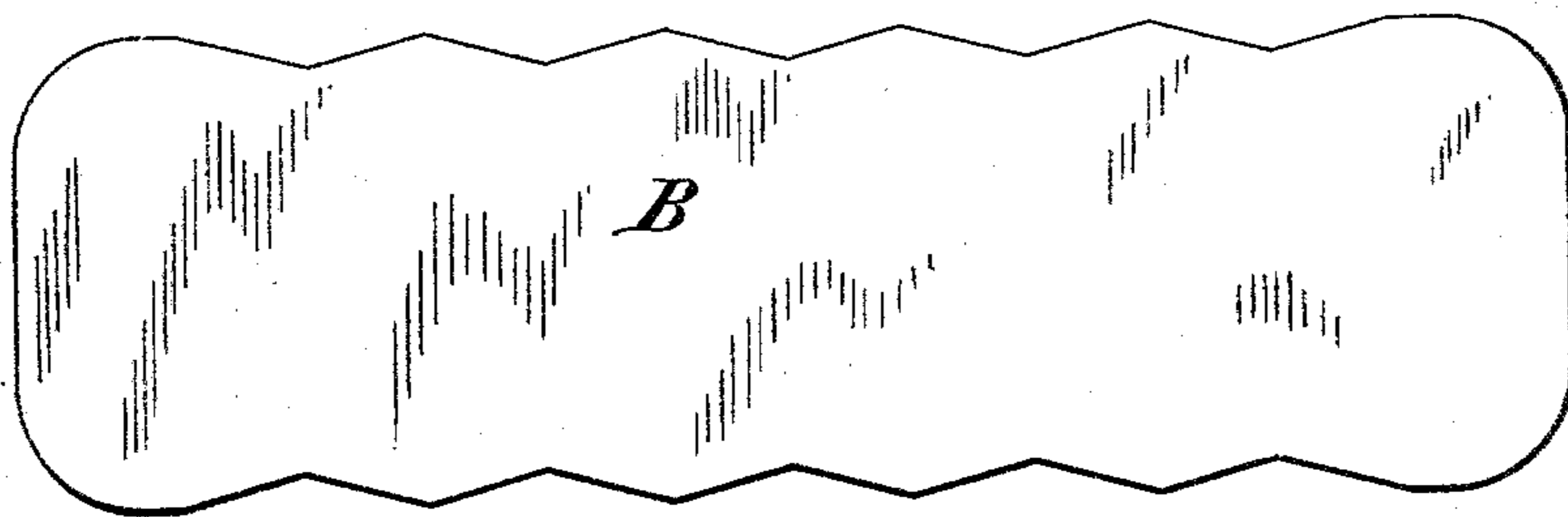


Fig. 4,



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BY

Edwin H. Brown

HIS ATTORNEY.

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Fig. 6.

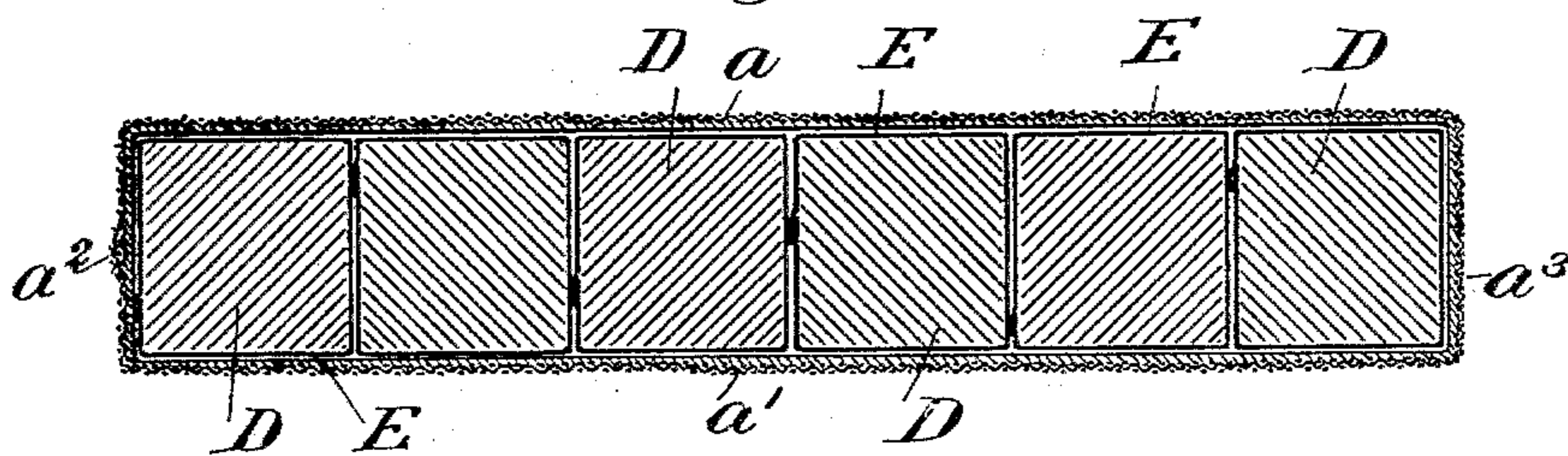
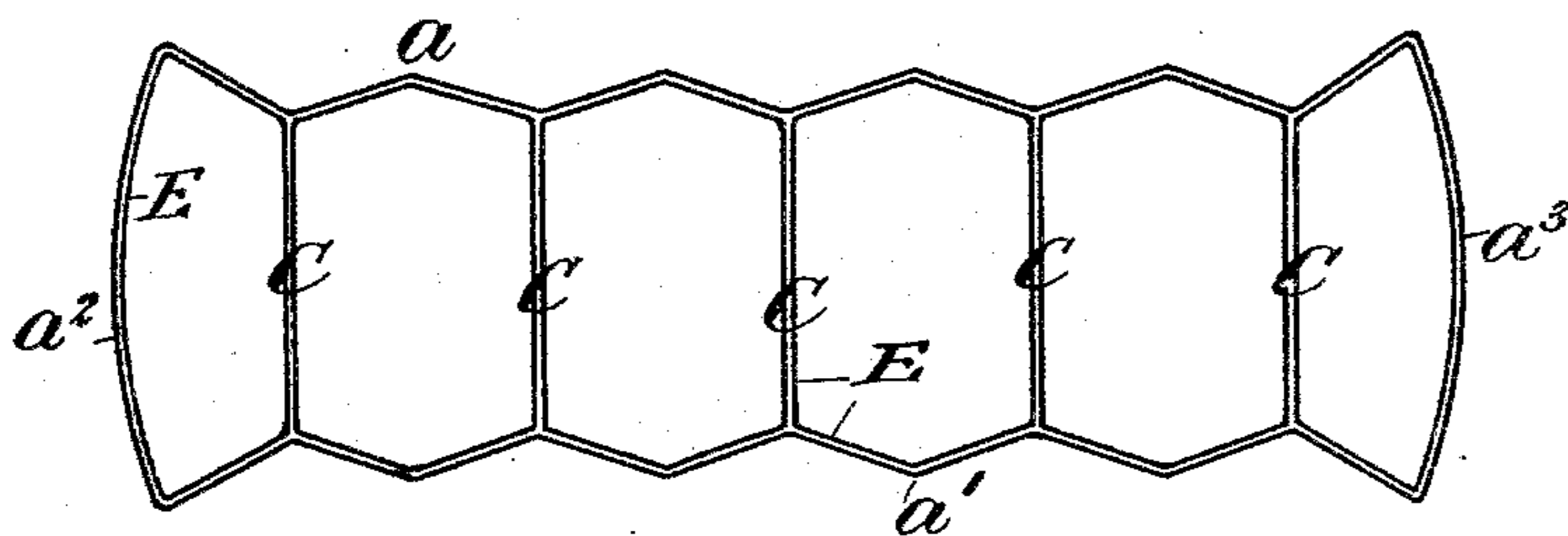


Fig. 7.



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UNITED STATES PATENT OFFICE.

RICHARD B. MEANY, OF UNION, HUDSON COUNTY, NEW JERSEY, AS-
SIGNOR TO THE PEERLESS RUBBER MANUFACTURING COMPANY,
OF NEW YORK, N. Y.

COLLAPSIBLE PNEUMATIC MATTRESS.

SPECIFICATION forming part of Letters Patent No. 598,054, dated January 25, 1898.

Application filed June 3, 1895. Serial No. 551,552. (No model.)

To all whom it may concern:

Be it known that I, RICHARD B. MEANY, of the town of Union, Hudson county, and State of New Jersey, have invented a certain new and useful Improvement in Collapsible Pneumatic Mattresses, of which the following is a specification.

My invention relates to collapsible mattresses and articles of similar nature.

I will describe a collapsible mattress embodying my improvement, and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is an end view of a collapsible mattress embodying my improvement, showing the same in an open or extended condition. Fig. 2 is a plan view of a portion of the same. Fig. 3 is an end view of the mattress, showing it in a closed or collapsed condition. Fig. 4 shows a plan of the piece or blank used to close the end of the mattress. Fig. 5 is a longitudinal section of a fragment. Fig. 6 is a sectional view showing a step in the process of manufacturing the mattress. Fig. 7 is a view similar to Fig. 5 and shows the forming-blocks removed and the mattress partially closed.

Similar letters of reference designate corresponding parts in all the figures.

A designates the mattress. It comprises an upper piece a and a lower piece a' of ticking or other suitable material, as well as side pieces a^2 a^3 , these several pieces being of the requisite width and length to give when straightened out the desired size of mattress. They will also be covered interiorly with some elastic material, as rubber, to retain air within the mattress for inflating purposes and at the same time permitting the surfaces of the mattress to readily assume an uneven appearance. The pieces a and a' are each provided with two series of opposed creases a^4 and a^5 , respectively, along which the pieces fold when the mattress is forced together sidewise.

B is the strip or blank forming the end closing for each end of the mattress. It is provided with creases corresponding to the series of creases in the pieces a and a' .

The dimensions of the space within which a collapsible mattress may be folded depend to a large extent upon the completeness with

which the end closures permit the upper and lower pieces of the mattress to assume their closest individual folded positions. The neat appearance of the ends of the collapsed mattress also depends upon this property.

The formation of the end portions of the mattress which I find will readily permit the several folds of each piece a a' to lie very closely together, consequently rendering the space occupied by the collapsed mattress very small, and which constitutes an essential part of my invention, is well shown in Figs. 1, 2, 3, and 4. As there shown, the edges of the upper piece a and the lower piece a' are more or less indented, presenting a scalloped appearance, the bottoms of the indentations being prolonged in those creases which fold inward toward the center of the mattress. Similarly the edges of the end closure B are indented to correspond. The boundaries of the surfaces of attachment of the end closure B with the mattress are approximately parallel to the edges of the pieces.

C are stay-bands secured within the mattress to the pieces a and a' at the bottoms of the inwardly-extending creases.

Fig. 6 shows a preferred method of making the mattress and securing the stay-bands in place. A series of forming-blocks D are first provided. They may be wood and are as long as the mattress, while their depth and width correspond, respectively, with the depth of the mattress and the distance between two adjacent inwardly-extending creases. Around each block D is wound a layer of so-called "friction-cloth" E, or cloth which has been faced with a layer of rubber, this facing being exposed. The several blocks are now placed side by side close together, and to the exterior of the series so placed there is applied the rubber-faced ticking or other material forming the upper and lower pieces a and a' and the side pieces a^2 a^3 . The blocks D are now withdrawn, leaving those portions of the friction-cloth on the sides of each block D which are in contact with the friction-cloths on adjacent blocks extending from one piece a to the other piece a' . These portions, which are left extending across the thickness of the mattress, constitute the stay-bands of the mat-

5 tress. The upper and lower pieces *a a'* may be creased either before being introduced into the mattress or afterward. The rubber-faced end closures B are now applied to the ends of the mattress and the whole vulcanized together.

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

- 10 1. A collapsible mattress having, in combination, upper and lower pieces provided with indented or scalloped edges, stay-bands extending between the upper and lower pieces, and end closures provided with indented or
15 scalloped edges similar to those of the upper and lower pieces, these latter pieces, the stay-bands, and the end closures being secured in place by vulcanizing them together, substantially as specified.

2. The method of forming a collapsible 20 mattress and inserting stay-bands therein, consisting in providing a series of forming-blocks with a layer of friction-cloth on their exterior, then placing the blocks side by side close together, subsequently wrapping the 25 material forming the top and bottom and side surfaces of the mattress around the series of blocks and inserting the end closures and finally vulcanizing the several pieces in contact together, substantially as specified. 30

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD B. MEANY.

Witnesses:

ANTHONY GREF,
EDWIN H. BROWN.