F. WEBB. STAY FOR PNEUMATIC MATTRESSES, &c. APPLICATION FILED SEPT. 12, 1904.

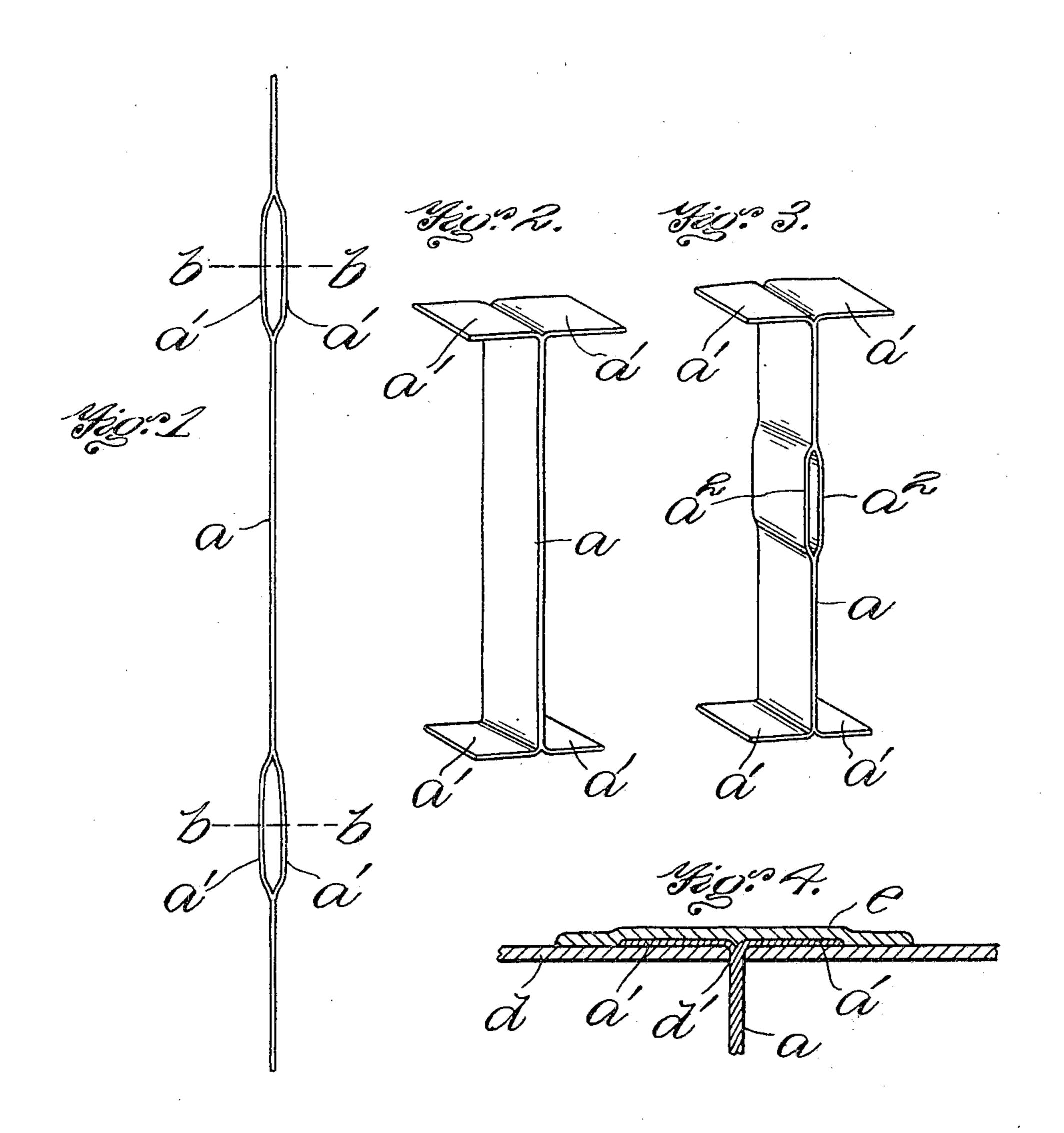


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United States Patent Office.

FRANK WEBB, OF READING, MASSACHUSETTS.

STAY FOR PNEUMATIC MATTRESSES, &c.

SPECIFICATION forming part of Letters Patent No. 787,137, dated April 11, 1905. Application filed September 12, 1904. Serial No. 224,092.

To all whom it may concern:

Be it known that I, Frank Webb, of Reading, in the county of Middlesex and State of Massachusetts, have invented certain new and 5 useful Improvements in Stays for Pneumatic Mattresses, &c., of which the following is a specification.

This invention relates to stays which are used to connect the opposite side pieces of pneumatic mattresses and other inflatable sacks to limit the separation of said side pieces by the pressure of the air. Stays of this character usually embody a main or body portion which extends between the two side pieces and flaps or ears at the ends of the body portion, said flaps being suitably secured to the side pieces. To give the stays suitable flexibility, they are usually made of flat strips of fabric, the end portions of which are cut 20 lengthwise to form two flaps or ears at each end of the stay, said flaps being bent outsecured to the side pieces of the mattress. Heretofore flat stays for this purpose have been lacking in strength and durability at the points where the flaps are bent outwardly from the body of the stay, the construction heretofore used having been such that there is liability of the tearing of the material of the 30 stay at these points.

My invention has for its object to provide a flat stay of textile fabric which shall be free from the objections above noted; and to this end the invention consists in the improve-35 ments which I will now proceed to describe

and claim. Of the accompanying drawings, Figure 1 represents an edge view of a strip of textile fabric prepared for the manufacture of my improved stay. Fig. 2 represents a perspective view of a stay embodying my invention made from the strip shown in Fig. 1. Fig. 3 represents a view similar to Fig. 2, showing plies to increase its flexibility. Fig. 4 represents a sectional view showing one of the end portions of the stay attached to one of the side pieces of a mattress.

The same reference characters indicate the same parts in all the figures.

In carrying out my invention I produce a strip of woven fabric which includes a series of body portions u of maximum thickness and a series of intermediate portions which comprise two plies a', each of the same width as 55 the body portion a and of half its thickness. The said strip may be woven by any suitable means or processes known to those skilled in the art of weaving, the parts u and u' being integral with each other and provided with 60 selvage edges, so that there are no raw edges or such edges as would be formed by cutting the fabric. The two-ply portions of the strip thus formed are severed on the lines b b, the operation of severing the strip converting the 65 plies a' a' into ears adapted to be bent outwardly from the body a of the strip, as shown in Fig. 2, each ear being of the same width as the body of the strip and of practically wardly from opposite sides of the stay and | half its thickness. The stay thus formed may 7° be attached to the side pieces d of a mattress by inserting the strip through an orifice d', placing the ears a' upon the outer surface of the side piece d, and securing said ears in place by means of a covering-piece e, which is pre- 75 pared to be secured to the flaps a' and to the side piece d by the vulcanization of rubber which is incorporated into said parts.

> It will be seen that the flaps a' are integral with the body u and free from raw edges at 80 the points where they join the body. The bases of the flaps are intimately united with the body of the strip by the weaving operation, so there is no possibility of the said bases being torn apart without breaking the threads 85 of which the fabric is composed.

To increase the flexibility of the stay, the central part of the body portion may be woven in two plies $u^2 u^2$, as shown in Fig. 3.

I claim— 1. A stay for the purpose specified, comthe central portion of the stay formed in two | prising a strip of woven fabric divided at its end portions to form flaps or flanges which are integral with the body of the strip and are of the same width as said body and of substan- 95 tially half its thickness, the said flaps being

adapted to be bent outwardly from opposite sides of the body of the strip.

2. A stay for the purpose specified, comprising a strip of woven fabric divided at its end portions to form flaps or flanges which are integral with the body of the strip and are of the same width as said body and of substantially half its thickness, the said flaps being adapted to be bent outwardly from opposite

sides of the body of the strip, said strip being 10 made in two parts or plies at an intermediate portion to increase the flexibility of the strip.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRANK WEBB.

Witnesses:

C. F. Brown, E. Batchelder.