(No Model.)

A. A. YOUNG.

AIR GOODS.

No. 573,122. Patented Dec. 15, 1896.

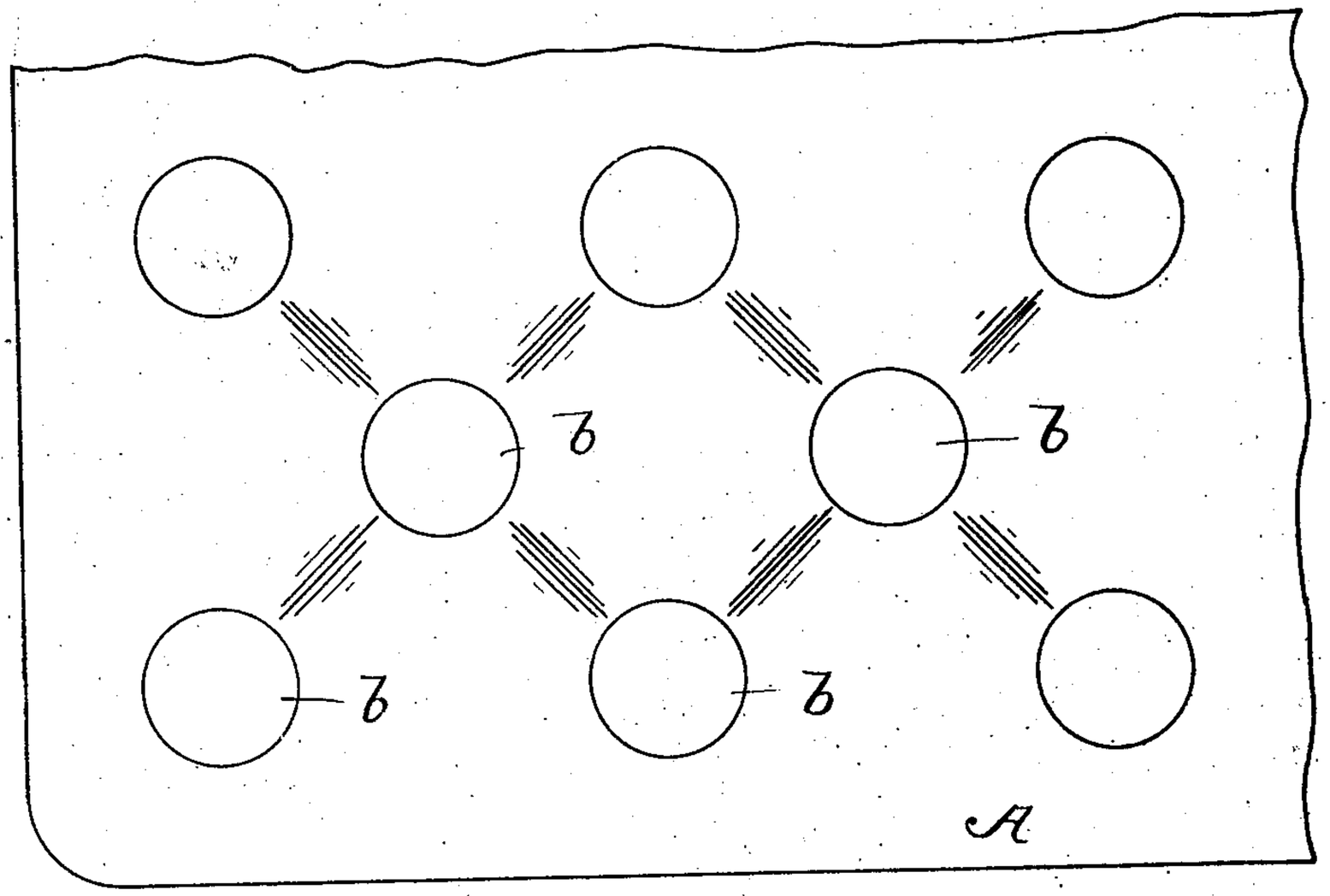

Fig. 1.

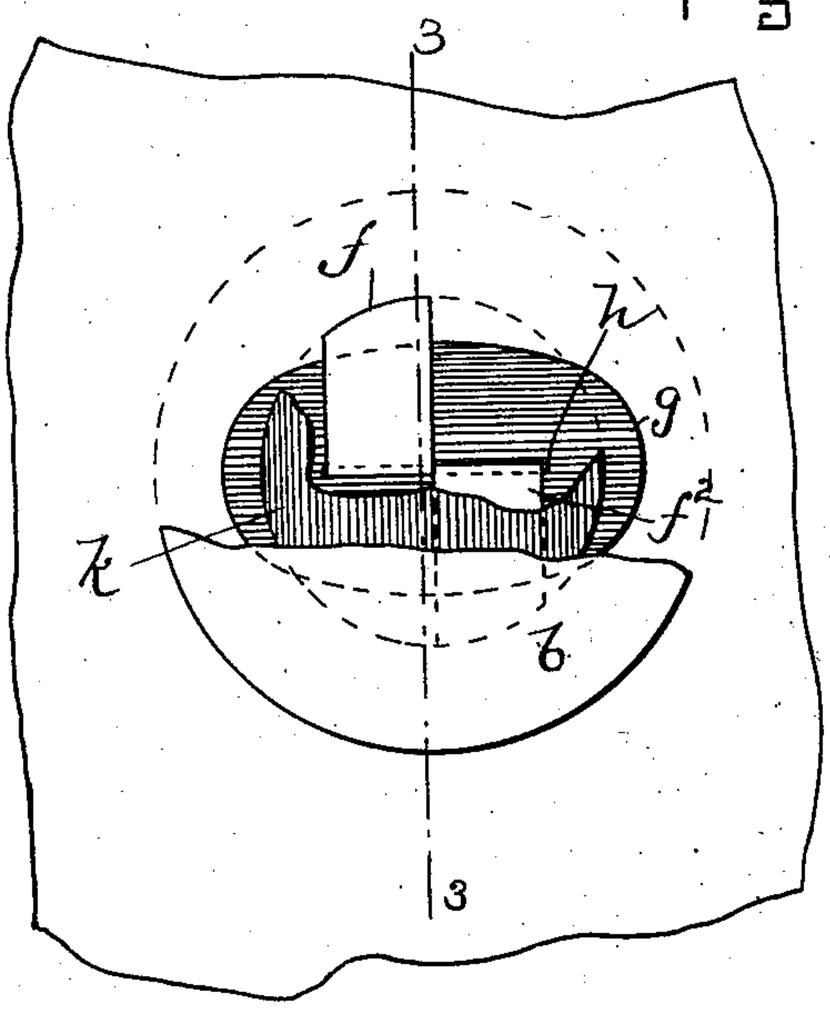

Fig. 2.

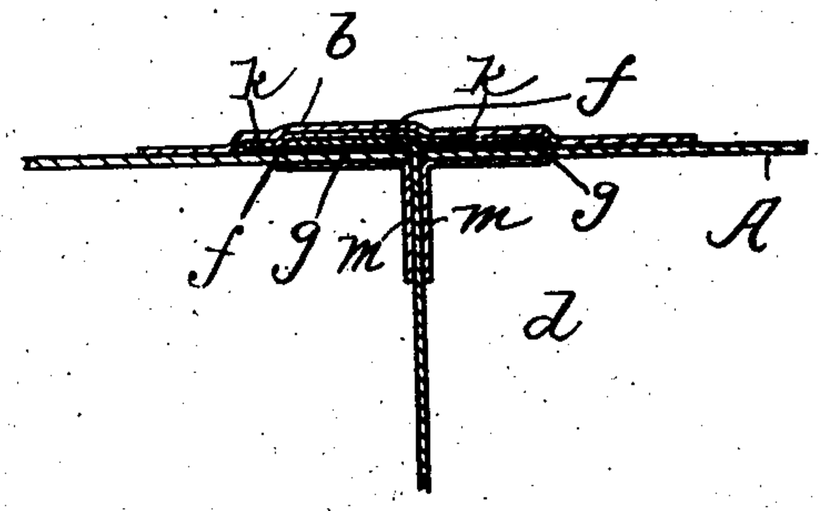

Fig. 3.

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UNITED STATES PATENT OFFICE.

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AIR GOODS.

SPECIFICATION forming part of Letters Patent No. 573,122, dated December 15, 1896.

Application filed April 10, 1896. Serial No. 587,004. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. YOUNG, of Greenwood, in the county of Middlesex, State of Massachusetts, have made certain new and useful Improvements in Air Goods, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention 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 plan view of a portion of an air-mattress provided with my improvement; Fig. 2, a plan view, enlarged, showing the stay fastening devices; and Fig. 3, a cross-section on line 3 3 in Fig. 2.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to improvements in devices for securing the walls of mattresses and other air goods together by stays, the object being especially to prevent the stays from tearing said walls when subject to pressure, or becoming distorted as the position of the weight borne is changed.

This present invention is designed also as an improvement on the device shown and described in my United States Letters Patent No. 496,030, dated April 25, 1893.

In the drawings, A represents the mattress considered as a whole. This mattress is constructed in the usual form from rubber-faced fabric vulcanized and its walls connected by stays *d* of tape. As in the patent referred to above, a reinforcing-piece *g* is cemented to the outer face of the wall and said wall and piece slotted at *h*. The stay is slit centrally and longitudinally in its ends, forming members *f f²*, which are passed through said slot and folded in opposite directions flatly onto the face of the piece *g*, as shown in Fig. 2. These members are covered by a circular piece of rubber cloth *k*, which is disposed with its gummed face in contact with said members. The whole is then covered by the cap-piece *b*, of the same material, and the parts are vulcanized together. This construction is substantially that shown in the Letters Patent referred to. It possesses, however, this disadvantage. The movements of the occupant of the bed frequently produce a torsional action on the stay. This is liable to extend the slit through the slot *h* or beyond the inner face of the wall. As strain is continually applied and the members *f f²* become farther separated they tend to spread the slot *h* and tear the wall, causing the mattress to leak. I overcome this objection completely and render the device described absolutely free from this danger by employing two strips of rubber cloth *m* of width equal to the stay, the gummed face of which is secured to the face of the stay and, bending at right angles, is secured to the inner face of the mattress, as shown in Fig. 3. The whole is then vulcanized. A bearing is thus afforded to resist the strain of the stay at either side of the slot, and the pieces *m*, being broad, serve to prevent the torsional action of the stay, completely overcoming the objections noted.

The stay is constructed of woven tape, and the strips *m* may be woven in one piece therewith, forming laterally-projecting wings, which may be engaged with the under side of the mattress-wall and secured thereto. By this means, in addition to preventing the stay splitting, a bearing is obtained on both the outer and inner surface of the wall, which also affords protection against the further elongation of the slit in said wall through which the stay passes. As both the split outer ends of the stay and these wings act in conjunction, double the holding strength is obtained over that imparted to the stay used as in my Letters Patent above referred to, rendering this form a radical improvement.

Having thus described my invention, what I claim is—

In an air-mattress or similar device having slits in its walls, a flexible stay passed through said slits and provided with wings adapted to be arranged at right angles to the body of the stay and secured to the inner faces of said walls adjacent said slits, the outer ends of the stay being split and the members thus formed secured to the outer surface of the walls at opposite sides of the slits whereby the strain of the stay on the walls is distributed between the inner and outer wall surfaces substantially in the manner described.

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