Pack & Van Horn,

Mattress.

No. 112,175. Patented Feb. 28, 1871.

Fig. 1.

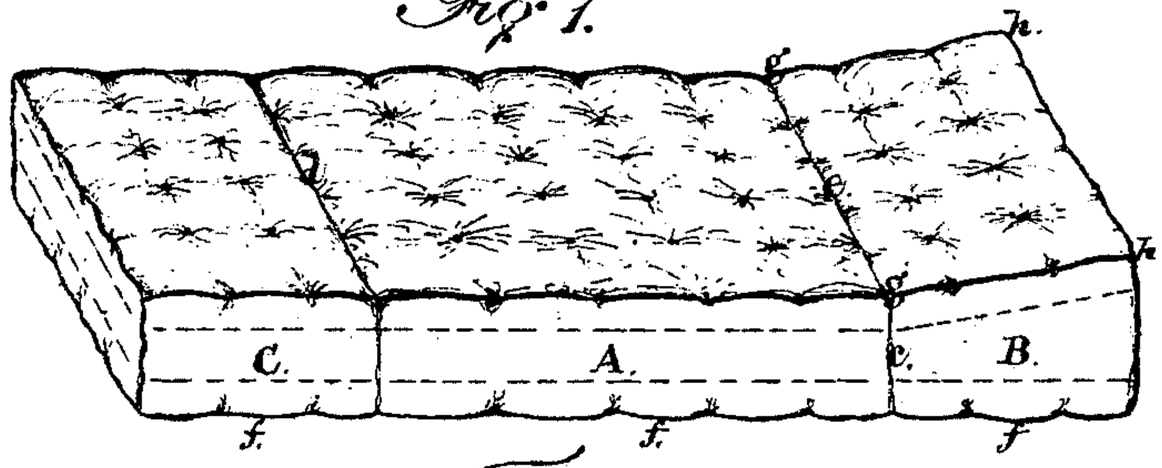


Fig. 2.

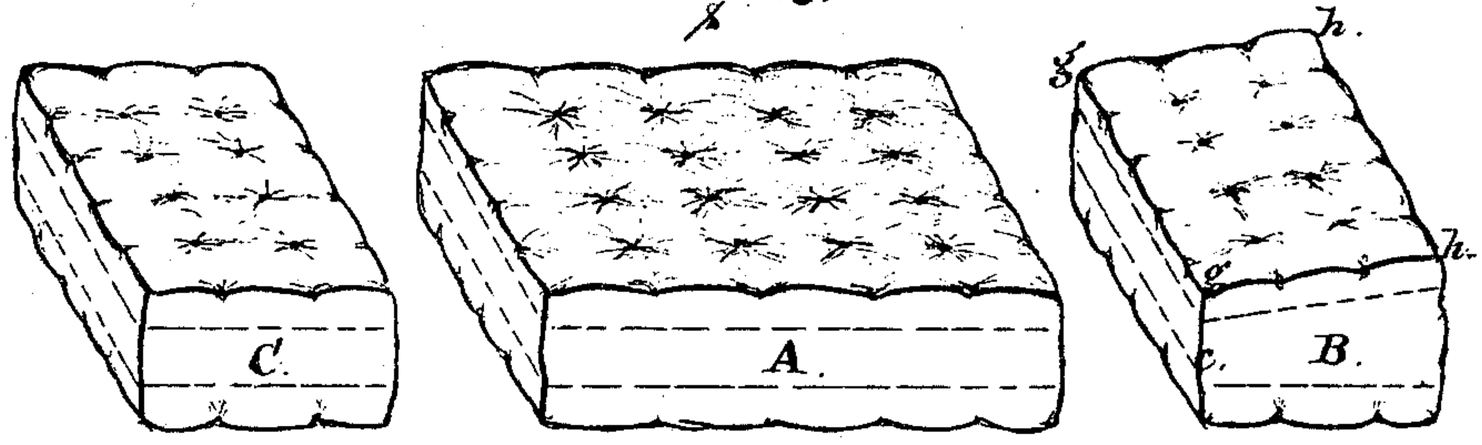
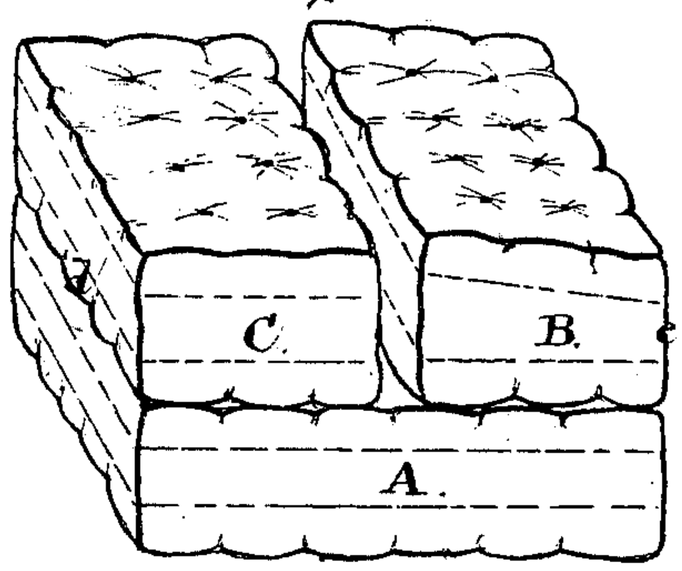


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE

WILLIAM H. PACK AND JOSEPH S. VANHORN, OF JERSEY CITY, N. J.

IMPROVEMENT IN MATTRESSES.

Specification forming part of Letters Patent No. **112,175,** dated February 28, 1871.

To all whom it may concern:

Be it known that we, WILLIAM H. PACK and JOSEPH S. VANHORN, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain Improvements in Mattresses; and we do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

Our improvement consists in a mattress so constructed that while the main portion, which supports the principal part of the body and receives the wear, is stuffed with pure hair of any desired quality, the other parts at the head and foot are stuffed with palm-leaf or other material cheaper than hair; and it also consists in certain details of construction.

Figure 1 represents a mattress made in accordance with our invention. Fig. 2 represents the same when made in three cross-sections, and Fig. 3 shows the two end sections folded upon the middle or hair section for convenience of storing or transportation.

The middle partition, A, we make of a length sufficient to sustain the whole body except the head and feet—say, for an ordinary-sized bed, about three feet six inches. This part, and this only, we stuff with hair, thus economizing about forty per cent. in the amount of hair which would otherwise be required; and as hair is always costly, and the cost is the principal barrier against the universal use of hair mattresses, we are thus enabled to meet and overcome, in a large degree, this difficulty.

The part B, being that portion which is ordinarily covered by a bolster, and which therefore receives but little direct pressure or wear, we stuff with palm-leaf or any kindred or cheap material; and the part C, being that portion at and near the extreme foot of the bed, we also stuff with the same cheap material, thus economizing still further the cost.

It will now be seen that by this construction, and the use of the most approved and costly material just in that part and only in that part where it is really needed, and having it entirely separated from and without any admixture with the less expensive filling, all the real advantages which attach to an all-hair mattress are in fact attained, while our mattress is not subject to any of the defects of those which, for the sake of economy, are stuffed throughout with hair intermixed with other articles, such mixed filling detracting largely from the good qualities appertaining to an all-hair mattress, rendering it less durable and elastic, and affording large opportunities for fraud and deception in the relative proportions of hair and of the inferior filling alleged to be intermixed. Such mattresses also are repicked and made over with greater cost and more difficulty, and with less satisfaction, because of the need of first separating the hair from the other articles, which will become more or less matted into it, and in doing this the hair also is liable to be torn and shortened, and thereby to lose much of its efficiency.

We have shown the parts B and C each made and filled as separate and independent sections. When so made, we prefer to join them together, in the lines *d* and *e*, in any well-known manner. This, while keeping them always connected and in true relative position at their top surfaces, also admits of the end pieces being turned up so as to lie upon the middle part, as shown in Fig. 2. This brings the whole into a compact form for handling, storing, or transportation.

The head-piece B we make the shape of a truncated wedge in its section, as shown, its lesser height or thickness at *c* being equal to that of the section A; but from the part *c* it gradually increases in thickness, as seen, so that when the whole bed is in place and its lower surface, *f f f*, on a level, the head-piece will have a gradual rise or inclined plane from *g* to *h*. This provision not only dispenses with the use of a bolster, by supporting the head at an easy and gradual elevation, but, owing to the yielding quality of each section at their line of contact and the wedge-shaped form of B, it insures the same elevated incline when turned upside down, as is often found by housekeepers desirable to be done. This certainty of getting the same elevation and inclination, as at *g h*, whichever side of the mattress is uppermost, is not attainable in any of that class of beds in which a frame at

the head is elevated to different degrees of mechanical appliances, nor in that class in which a bed or its frame is so made as not to be capable of use when upside down.

The center part can be filled with any weight or quality of hair required.

For hotels, hospitals, colleges, vessels, &c., where large numbers of beds of good quality are wanted, our invention will enable them to furnish with a first-class hair mattress, where otherwise the want of means would compel the use of an inferior article. For hospitals it is of especial value, as the middle part only needs to be repaired and renovated, and at only about one-half the usual cost.

The mattress may be made all in one by putting a tick or other partition between the hair and the palm-leaf, so as to separate them, or by properly putting in the palm-leaf or other material at the head and foot entirely distinct from the hair in the middle part the separating partitions might be dispensed with. We prefer, however, the construction previously described and shown in the drawing, deeming it far better and more serviceable.

We claim—

As an article of manufacture, the improved mattress described, having its central part stuffed with hair and its two ends stuffed with inferior material, the head part being wedge-shaped or not, at option.

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Witnesses:
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