Sept. 13, 1927. 1,642,557

D. L. REYNOLDS

NONSTRETCHABLE MATTRESS

Filed Aug. 24, 1925

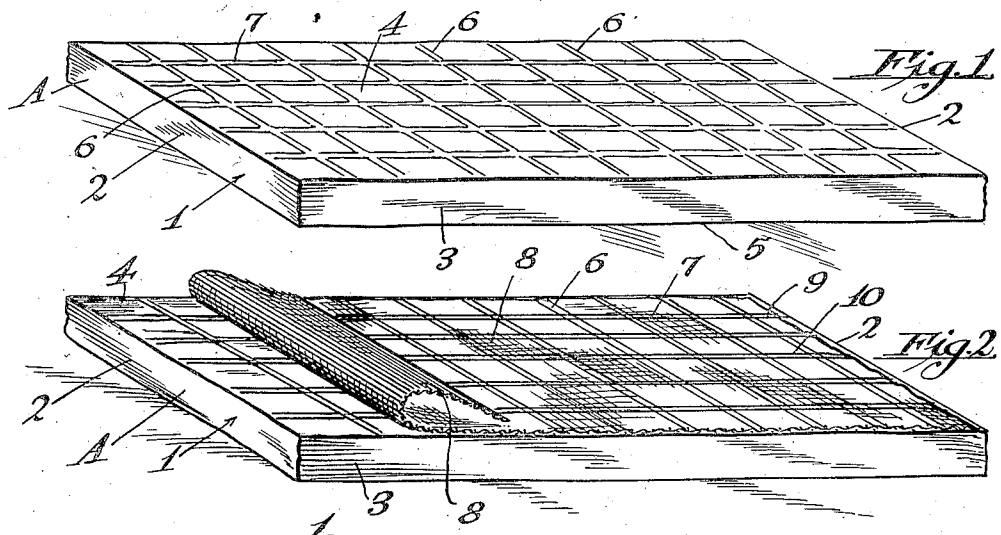


Fig. 1

Fig. 2

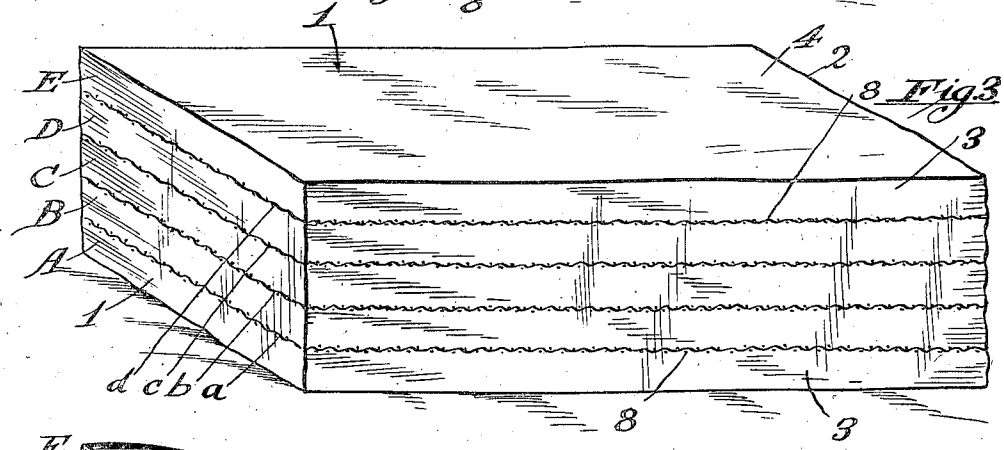


Fig. 3

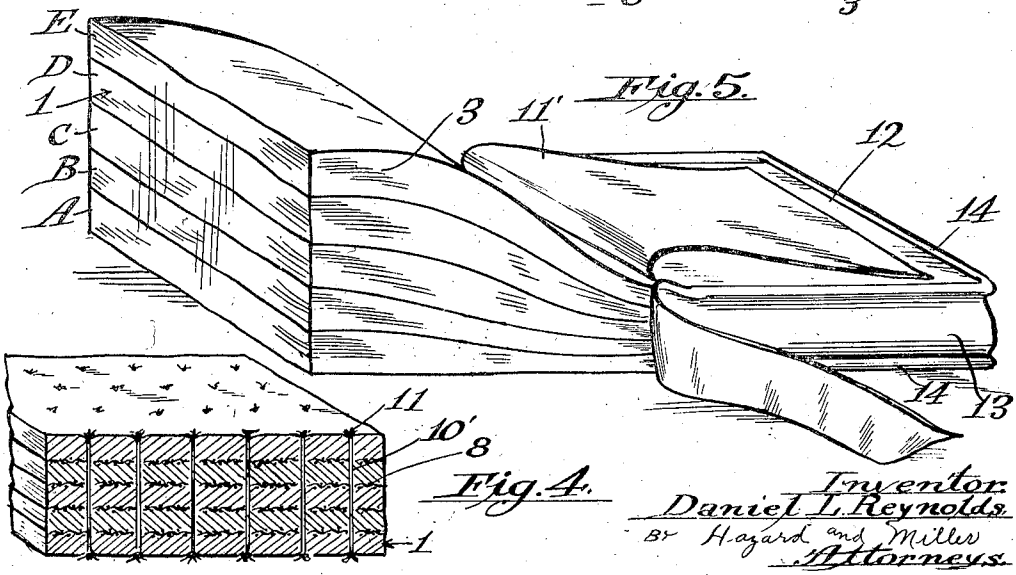


Fig. 5.

Fig. 4.

Inventor:
Daniel L. Reynolds
By Hazard and Miller
Attorneys.

Patented Sept. 13, 1927. 1,642,557

UNITED STATES PATENT OFFICE.

DANIEL L. REYNOLDS, OF LOS ANGELES, CALIFORNIA.

NONSTRETCHABLE MATTRESS.

Application filed August 24, 1925. Serial No. 52,085.

My invention is a non-stretchable mattress and the method of making the same, and comprises a mattress preferably built of layers of cotton batts secured together in such a manner as to prevent lateral stretching.

It is well known that the ordinary mattress formed of the so-called cotton felting or layers of cotton batts, even when secured in the ticking will stretch sidewise and lengthwise and therefore making the mattress unshapely as well as causing a variation in the thickness at different places, making an uncomfortable mattress.

In my invention I build the mattress up with a plurality of layers of cotton batts and as an upper layer is applied to the lower layer I put an interlayer of cheese cloth, coating the cloth with bands of soft glue, thus causing the cotton of the batts on opposite sides of the cheese cloth to adhere to the cloth and hence to bind one with the other. The succeeding layers are built up in the same way, alternating layers of batts and cheese cloth and preferably having no covering on the top or bottom of the uppermost and lowermost batt. As an extra precaution strings are threaded through the mattress so formed from top to bottom and each string is knotted on the outer surface of the exposed batts. The usual ticking is then drawn over the mattress so formed and preferably has a beading or roll at the edges but is not bound through the mattress with tufting strings or the like but is preferably left with a smooth upper and lower surface.

My invention as to the mattress and the method of making will be more readily understood from the following description and drawings, in which;

Figure 1 is a perspective view of a batt used for building up a mattress, showing one step in which the batt may have bands or bars of soft glue placed thereon.

Fig. 2 is a perspective view of a cotton batt with a layer of cheese cloth placed on the upper surface, indicating the lines of glue on the batt and the cheese cloth.

Fig. 3 is a perspective view of the several batts and layers of cheese cloth built up into the thickness of a mattress.

Fig. 4 is a further perspective detail in section, indicating the stitching through the mattress from top to bottom, with knots on the upper and lower surface showing an alternative construction.

Fig. 5 is a perspective detail showing the type of ticking cover applied to the mattress.

In the drawings, the individual batts are designated by the numeral 1 and for purposes of description the ends may be designated as the head and foot 2, the sides 3 the top 4 and the bottom 5. In Figure 1 the first step is indicated by forming cross bands or strips 6 of soft glue and longitudinal strips 7 of soft glue. This is preferably poured on the batt by utilizing a container having a spout with a small orifice and quickly passing the orifice above the batt in close relation thereto, pouring a small quantity of glue on the batt.

The next step is to place a layer of cheese cloth 8 on the top of the batt before the glue has an opportunity to harden and then strips of glue 9 and 10 designating the cross strips and longitudinal strips are poured on the cheese cloth following the lines of the bands or strips 6 and 7 on the batt underneath. This effectually binds the cheese cloth to the batt on which it is spread. The third step is to place the second batt designated by the letter B on top of the first batt A before the glue on the cheese cloth has had a chance to set.

A layer of cheese cloth is then placed on top of the batt B after it has been striped with glue as above described. The layer of cheese cloth and the succeeding batt are applied as above set forth. In Fig. 3 there are five layers of batts shown with four layers of cheese cloth in between, the batts being designated by the letters A, B, C, D and E, and the layers of cheese cloth being designated by the letters *a*, *b*, *c*, and *d*. The bottom surface 5 of the lowermost batt and the upper surface 4 of the topmost batt are not covered with cheese cloth but left in their natural condition.

A further step is illustrated in Fig. 4, in which the mattress as above formed by utilizing alternate layers of cheese cloth and batts with the striping of glue to bind them together, are stitched with string or thread 10′, forming merely a straight stitch through the mattress from the top to the bottom and tying the string at each end close into the surface of the lowermost and uppermost

batt. Preferably I do not use any tufting leathers or other devices to spread the pressure on the adjacent parts of the batts as with my construction simple hand tied knots 11 are sufficient.

After the mattress is made up as above described the cover or ticking 11′ which is of the usual character is placed over the mattress in the usual manner and stitched to form a covering. The top and bottom 12 of the mattress is preferably left plain and smooth without any tufting by a stitching through the mattress as with my construction it is not necessary as the manner of building up the batts prevents lateral stretching. The edges 13 are formed in the usual manner with the usual roll 14 at the upper and lower corners thereof around the mattress.

The procedure outlined may be simplified if desired by omitting the first step of striping the lowermost batt with glue as the cheese cloth can be spread over the batt and the glue will pass through the cheese cloth sufficient to bind the batt and the cheese cloth together, the second batt being placed on the cheese cloth before the glue has had an opportunity to harden. The whole mattress may be built up in this fashion if desired.

For some types of mattresses the last step of forming the tufting by utilizing the strings 10′ with the knots 11 may be omitted as for most purposes the alternate layers of batts and cheese cloth with the glue stripings is sufficient.

It is obvious that my invention may be applied to different purposes other than making cotton mattresses, for instance the same principle may be applied to building up layers of felted material, one on top of the other. Also for some purposes the layer of cheese cloth may be omitted, the different batts being well striped with glue before they are placed one on top of the other. Again for other types of mattresses the glue and cheese cloth may both be omitted and the mattress constructed by tufting the mattress as shown in Fig. 4 with the knots bearing directly on the material of the batt. Other modifications of my invention without departing from the spirit thereof will be apparent.

Having described my invention, what I claim is:

1. The method of making mattresses comprising placing a sheet of open mesh fabric on the surface of a batt, coating the fabric with glue, allowing some of the glue to run through the meshes, placing a second layer of batt on the fabric before the glue is set and building up a mattress with alternate layers of batts and fabric with the glue coatings on the fabric.

2. The method of making mattresses comprising placing a sheet of open mesh fabric on a batt, striping the fabric with strips or bands of glue, allowing the glue to permeate through the meshes and applying a second layer of batt to the fabric before the glue is set and building up a mattress with the desired number of alternate layers of batts and fabric.

3. The method of making mattresses comprising striping the surface of a batt with stripes or bands of glue, placing a sheet of open mesh fabric thereon, striping the fabric with stripes or bands of glue and applying a second batt on top of the fabric before the glue is set and building up the mattress to the desired thickness with alternate layers of batts and fabric, striping the batt and then the fabric laid thereon, with glue.

4. A mattress built up of alternate layers of batts and sheets of open mesh fabric with stripings of glue, binding the fabric to the batts on both sides thereof and a ticking cover on the mattress having smooth top and bottom surfaces without tufting.

In testimony whereof I have signed my name to this specification.

DANIEL L. REYNOLDS.