Oct. 8, 1940. F. E. KATZNER 2,217,621

BED QUILT OR THE LIKE AND PROCESS OF MAKING THE SAME

Filed Aug. 2, 1938

Fig. 1.

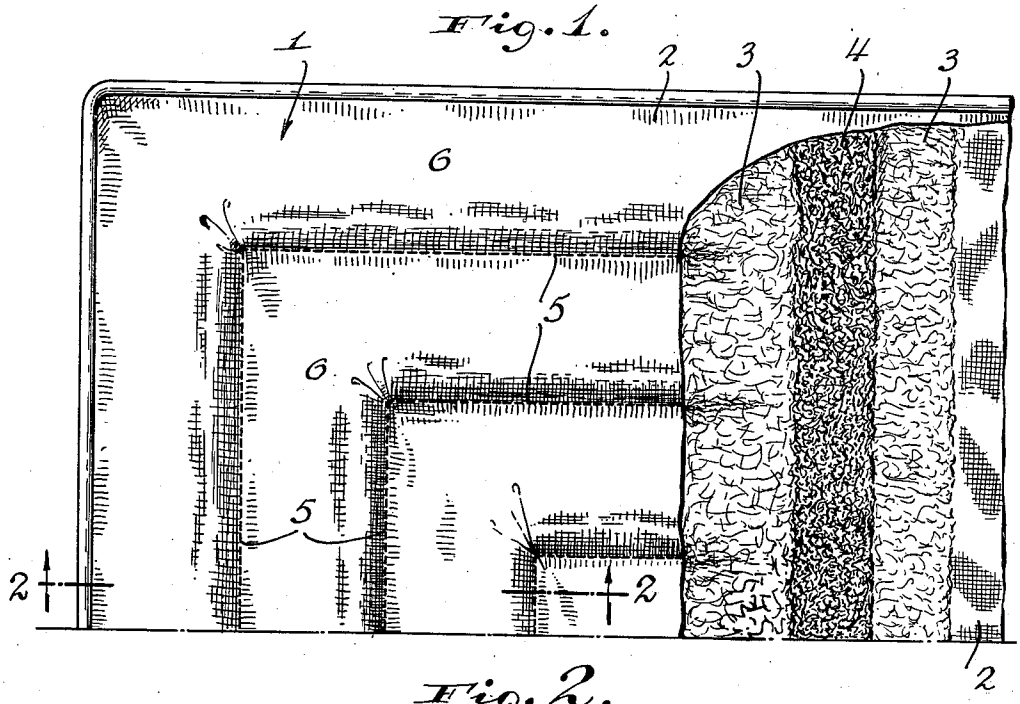


Fig. 2.

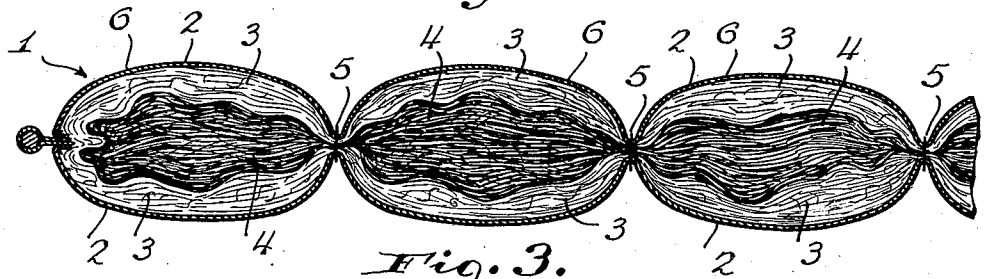
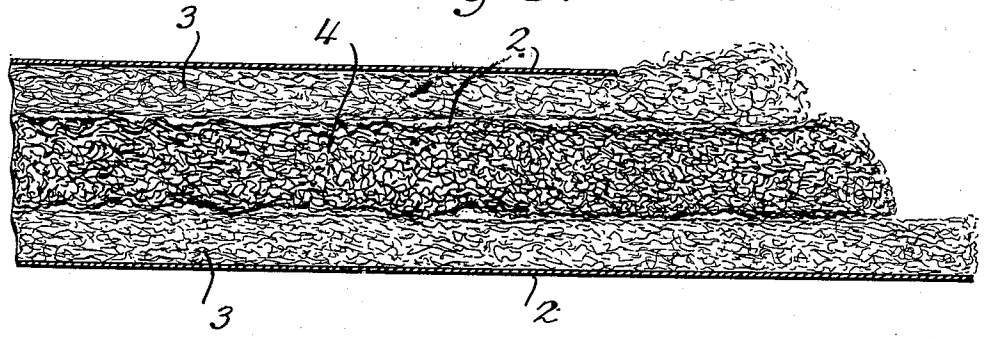


Fig. 3.



INVENTOR.
FRED E. KATZNER
BY Nilsen & Schlenk
ATTORNEYS.

Patented Oct. 8, 1940

2,217,621

UNITED STATES PATENT OFFICE

2,217,621

BED QUILT OR THE LIKE AND PROCESS OF MAKING THE SAME

Fred E. Katzner, Forest Hills, N. Y., assignor to The Comfy Manufacturing Co., Baltimore, Md., a corporation of Maryland

Application August 2, 1938, Serial No. 222,577

2 Claims. (Cl. 5—334)

This invention relates to bed quilts, pillows or the like. The object of the invention is particularly directed to the production of bed quilts which have a high efficiency of insulation, are soft and resilient, tend to retain their initial thickness and uniformity of distribution of insulating material without substantial shifting of the insulating material.

In the drawing, Fig. 1 represents a corner portion of a quilt embodying this invention, portions being broken away to show the successive layers of the filling; Fig. 2 represents a cross-section of the insulating materials embodied in the quilt, on the line 2—2 of Fig. 1; and Fig. 3 is a section of a portion of a quilt with all parts assembled and before stitching.

It has been recognized for years that certain filling or stuffing materials, used as the insulating medium in the manufacture of quilts, shift away from the stitching and collect in an end or corner of the quilt pockets or cells, leaving considerable areas of the quilt without insulating material. This has been particularly true of kapok when used as a filler or stuffing and consequently kapok, although a good insulator, has not been successfully and commercially used as an insulating material for quilts.

Kapok is a short fibered material as compared with cotton; its fibres are straight and the material readily tends to lump or ball rather than lend itself to carding or weaving. The kapok fibres, however, are water-repellent because of their waxy characteristics, and are resilient and buoyant or light. Their insulating characteristics are ideal. The difficulty experienced heretofore in the use of kapok as an insulating material in bed quilts or the like, if its natural characteristics are to be utilized, has led the industry to reject kapok as an insulating material for quilts. It can be utilized as a stuffing, for instance in doll bodies, if it is packed tightly or forced into the body casing as a closely packed mass.

The present invention overcomes the objectionable experience heretofore had in the use of kapok as an insulating material for bed quilts and the advantages of this invention will appear from this specification.

The quilt 1 has two facing materials 2—2 made preferably of a woven material, silk, rayon, cotton, dyed or decorated to provide an outer covering of fanciful and attractive nature. Directly beneath and against each inner surface of the facing sheets 2—2, is a sheet 3—3 of carded cotton or cotton batting in the form of a continuous sheet, fluffy and loose in texture. Sheet cotton in its virgin form, white, cleaned and carded into sheet form, measuring between one-half of an inch to one inch in thickness, is preferably used. Each sheet of cotton weighs approximately one pound to the standard size quilt measuring 72 inches by 84 inches. Intermediate of the two sheets of cotton 2—2, a loose, fluffy mass of kapok 4 is provided. The mass of kapok is not carded, felted or garnetted but is in a loose mass, positioned between the two continuous loose, fluffy cotton sheets 2—2, in irregular order, but preferably of substantially uniform thickness. The combined thickness of the two sheets of cotton and the intermediate layer of kapok represents preferably a thickness of between two and two and one-half inches. The usual quilting stitches 5 are sewn through the facings 2—2, the cotton sheets 3—3 and incidentally pass through such kapok which is in line with the course of the stitches. The stitches 5 are preferably arranged in a predetermined order, dividing the quilt into units or pockets 6, (either square, diamond or tubular form), each unit or pocket 6 being bounded by stitching 5. It will thus be observed that each quilted unit or pocket 6 represents a definite area of the entire quilt comprising a portion of the continuous facings 2—2, a portion of the continuous cotton sheets 3—3, and a confined portion of the mass of kapok. The kapok and the cotton interengage and the kapok thereby tends to anchor in its originally arranged position and will not shift or ball into a corner or one end of its unit or pocket 6. The layers of cotton and kapok, at the lines of stitching, are substantially compressed or drawn together, but the kapok and cotton nevertheless extend between the lines of stitching and insulate along such thinned portions.

It will be observed from Fig. 3 of the drawing that whereas the kapok is initially laid in a fairly uniform layer between the cotton sheets, the quilting operations tend to draw the facing materials snugly around the cotton layers and slightly draw the kapok, in the individual pockets, into irregular configuration, the cotton layers closely conforming to the surface contour of the kapok. Each kapok mass in the individual pockets is connected by a neck of kapok with the next adjoining kapok mass. The cotton sheets likewise extend through the stitching (compressed at such lines), but throughout the quilt the cotton sheets are interposed between the facings 2—2 and the kapok mass. It is important that, in the course of manufacture of the quilts, the ka-

pok mass and cotton sheets should retain, in the individual pockets, their loose, fluffy condition, which will preserve the ideal characteristics of this invention.

A quilt made according to this invention has inherent resiliency qualities and tends to retain its fluffy condition and readily returns to a fluffy condition when compressed. Such quilts afford considerable warmth but, nevertheless, are light in weight. The kapok especially remains fluffy, resembling in this respect the fluffy characteristic of down. Kapok and cotton are readily available, are inexpensive in price when compared to wool or down, both have insulating characteristics and are clean and sanitary.

When constructing a quilt according to this invention, a sheet of the loose, fluffy cotton is cut to size and the required thickness of kapok is laid thereon in a generally uniform layer. The other sheet of cotton, likewise cut to size, is superposed upon the kapok mass and this "sandwich" is then associated with the facings and stitched or quilted.

It is preferred to use the cotton sheets in the form of a carded, loose, fluffy mass, but the cotton sheets may also be utilized in the form of felted sheets but then loosely felted.

The amount of kapok which is incorporated in the quilt is discretionary with the manufacturer within certain limits, but completely satisfactory results will be obtained if a pound of kapok is used in a standard quilt measuring 72 inches by 84 inches, evenly distributed in a layer in the manner accomplished by an operator who, after weighing the kapok, distributes the pound of kapok evenly by hand over the underlying cotton sheet. Such a mass of kapok has the required resiliency to maintain the quilt full and to provide the necessary amount of insulation.

I claim:

1. A bed comfortable comprising two facing sheets, an internal layer of kapok distributed substantially equally throughout substantially the area of the comfortable, said layer of kapok being arranged in alternate portions of loose, fluffy masses and connecting narrow neck portions, a continuous sheet of loose, fluffy carded cotton on each side of the layer of kapok and contacting the outer surface of said layer of kapok, rows of stitching bordering the fluffy portions of said kapok mass and extending through said narrow necks of said kapok, through both portions of the cotton sheets lying against said narrow necks of kapok and through the adjacent portion of the facing sheets, said stitching retaining the kapok mass at said narrow necks in compressed condition and in materially less thickness than said loose, fluffy portions of said kapok mass.

2. In a quilt of the character set forth in claim 1, in which the quilt is substantially between two and two and one-half inches in thickness and in which, in a standard quilt, substantially one pound of kapok is evenly distributed throughout the central portion of the quilt and each cotton sheet weighs substantially one pound, the kapok and the cotton sheets, along the lines of stitching, being closely drawn together by the stitching to form thin necks, preserving the continuity of the cotton sheets and the kapok between adjoining pockets.

FRED E. KATZNER.