Dec. 4, 1962 M. M. KINTNER 3,066,323

BEDDING

Filed Dec. 12, 1960 4 Sheets-Sheet 1

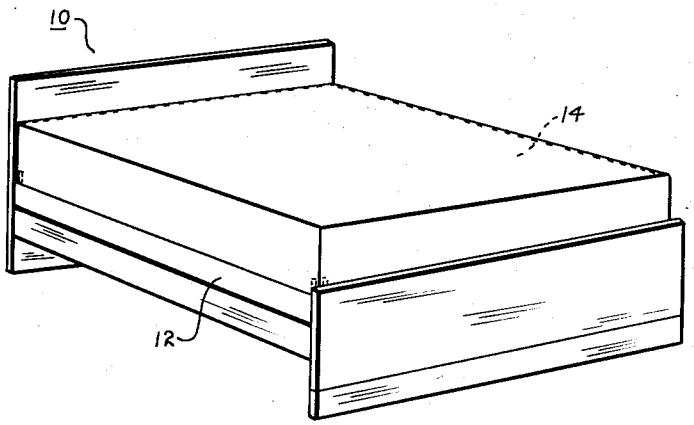


FIG. 1

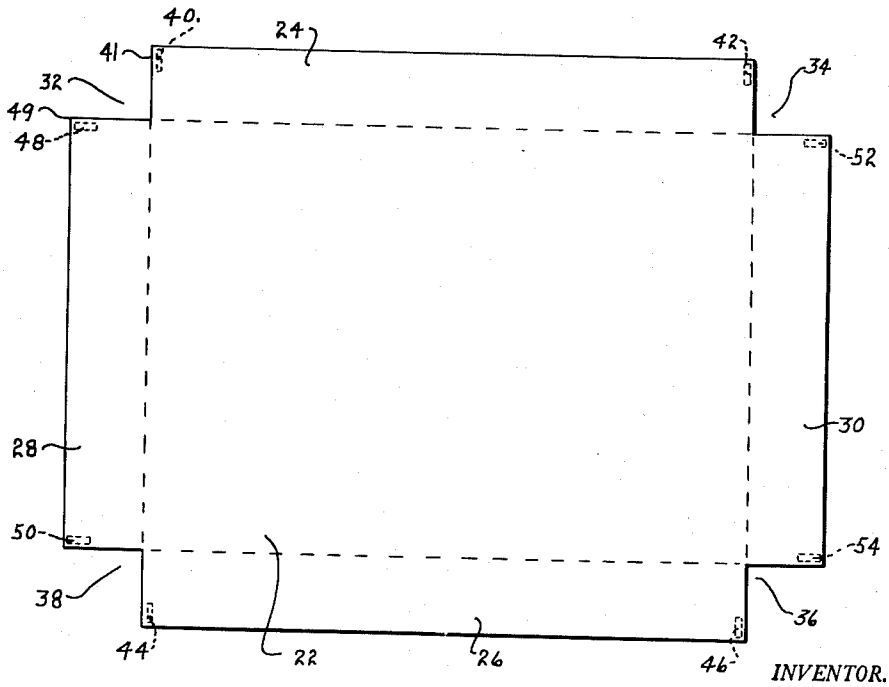


FIG. 2

INVENTOR.
MILDRED M. KINTNER
BY M. A. Hobbs
ATTORNEY

Dec. 4, 1962 M. M. KINTNER 3,066,323

BEDDING

Filed Dec. 12, 1960 4 Sheets-Sheet 2

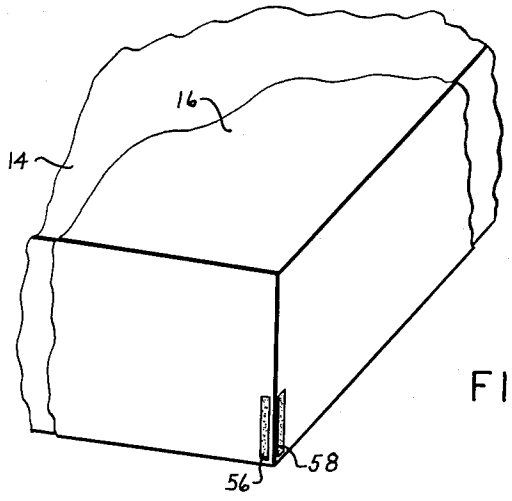


FIG. 3

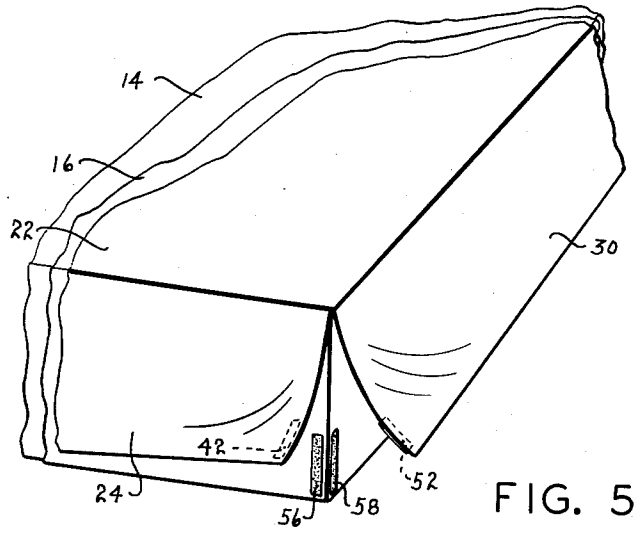


FIG. 5

*INVENTOR.*
MILDRED M. KINTNER
BY M. a. Hobbs
ATTORNEY

Dec. 4, 1962 M. M. KINTNER 3,066,323

BEDDING

Filed Dec. 12, 1960 4 Sheets-Sheet 3

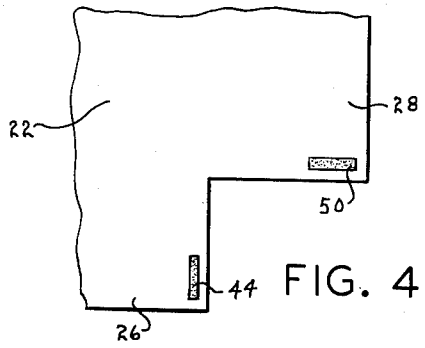


FIG. 4

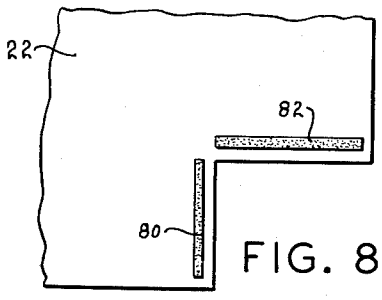


FIG. 8

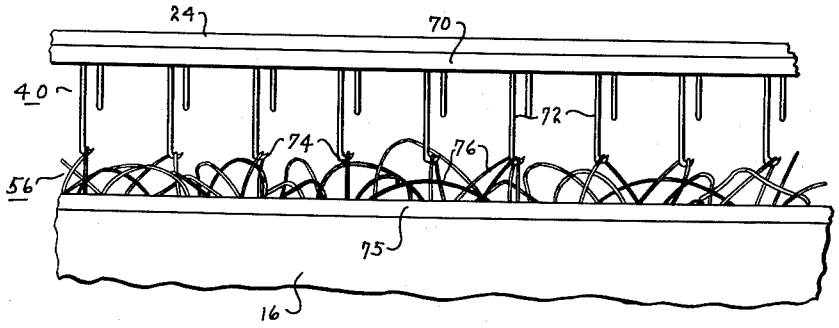


FIG. 6

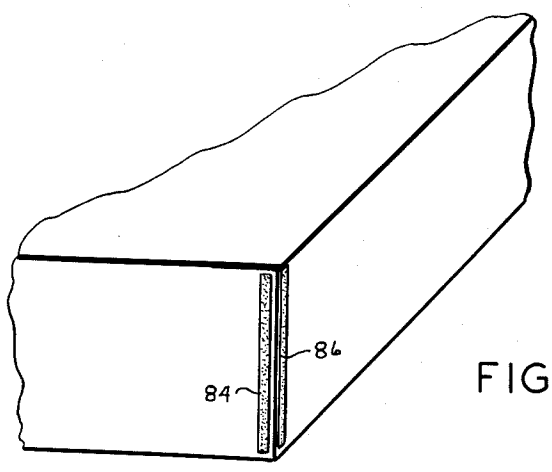


FIG. 7

*INVENTOR.*

MILDRED M. KINTNER

*BY*

M. A. Hobbs

ATTORNEY

Dec. 4, 1962 M. M. KINTNER 3,066,323

BEDDING

Filed Dec. 12, 1960 4 Sheets-Sheet 4

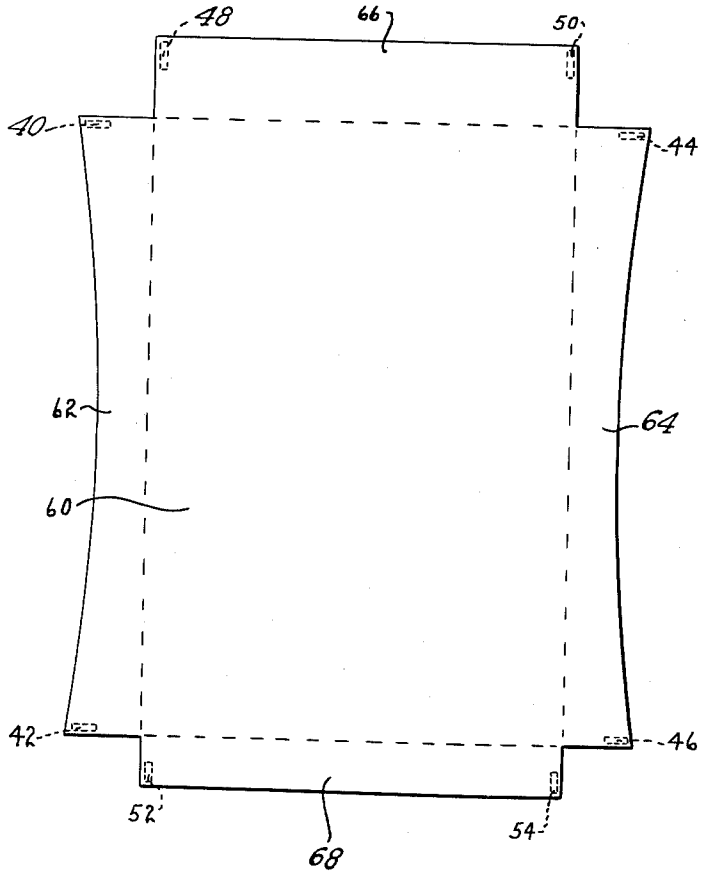


FIG. 9

*INVENTOR.*
MILDRED M. KINTNER
BY M. A. Dobbs
ATTORNEY

United States Patent Office 3,066,323 Patented Dec. 4, 1962



3,066,323

# BEDDING

Mildred M. Kintner, 3624 Vistula Road, Mishawaka, Ind.

Filed Dec. 12, 1960, Ser. No. 75,279
2 Claims. (Cl. 5—334)

The present invention relates to bedding and more particularly to a special sheet construction and means for securing it onto a bed or the like.

In making beds with the conventional flat sheets and contour sheets, it is necessary to tuck the sheet between the mattress and springs by forcing the edge of the sheet beneath the mattress or by lifting one end or a corner of the mattress sufficiently to place the sheet well beneath the bottom of the mattress. This operation is not only difficult and tedious but often will not anchor the sheet with sufficient firmness to remain in place while the bed is being used. Contour sheets, which have become popular and are now being extensively used, require the mattress to be lifted in part when the bed is being made and occasionally will not fit the mattress sufficiently snugly to remain stretched after the bed is made. These contour sheets are furthermore difficult to launder, iron, fold and store since the pockets at each end thereof constantly interfere with these operations. It is therefore one of the principal objects of the present invention to provide a sheet having all the advantages of a contour sheet, but which when removed from the bed lies flat and is without pockets, buckles or straps which would interfere with laundering, folding and storing the sheets.

Another object of the present invention is to provide a sheet and securing means therefor which permits the sheet to be placed flat on the bed and secured in place without lifting any portion of the mattress and without tucking the sheet inwardly between the mattress and spring, and which can be stretched tightly over the mattress regardless of minor variations in mattress sizes from one bed to another.

Still another object of the present invention is to provide a bed sheet which can be secured firmly in place by merely pressing the corners thereof downwardly adjacent the corners of the mattress and which can be readily stretched tightly over the mattress at any time thereafter without tucking the sheet beneath the mattress.

A further object of the invention is to provide a sheet or cover having a special means for securing it to a mattress or mattress pad, which has an infinite number of securing positions and which permits the sheet to be pulled tightly over the mattress from either end or either side.

Another object of the invention is to provide a sheet of the aforesaid type which can be used either as a top or bottom sheet and which can be used as a conventional sheet without any interference from the special sheet securing means embodied therein.

Additional objects and advantages of the present invention will become apparent from the following description and accompanying drawings, wherein:

FIGURE 1 is a perspective view of a bed showing my sheet and special retaining means in use with a bottom sheet and a mattress;

FIGURE 2 is a top plan view of my sheet removed from the bed and stretched to its fullest extent, to illustrate the overall configuration of the sheet structure;

FIGURE 3 is an enlarged fragmenary perspective view of a mattress having a mattress cover thereon, with one portion of my securing means mounted in position;

FIGURE 4 is an enlarged fragmentary bottom view of the sheet shown in FIGURE 2, showing the structure forming a portion of the sheet securing means;

FIGURE 5 is a fragmentary perspective view of a mattress and my sheet shown partly in place thereon,



illustrating the manner in which the corners of the sheet are secured in place by the present securing means;

FIGURE 6 is an enlarged fragmentary view of one type of material used in my sheet securing means;

FIGURE 7 is a fragmentary perspective view of a mattress having a cover thereon with a modified form of my sheet securing means;

FIGURE 8 is a fragmentary bottom view of a sheet showing another portion of the modified securing means used in conjunction with the portion of the securing means shown in FIGURE 7; and

FIGURE 9 is a plan view of a further modification of the present invention.

Referring more specifically to the drawings, numeral **10** designates a conventional double bed having thereon a set of box springs **12** and a mattress **14**, the basic construction of the springs and the internal construction of the mattress being conventional and well known and hence not described in detail herein. The mattress is shown with a cover **16** on which one portion of the present securing means is mounted; however, the cover can be eliminated and the securing means attached directly to the mattress.

A sheet embodying the present invention is shown in FIGURE 2, consisting of a large flat piece of cloth material having a center panel **22** corresponding to the top of the mattress, side portions **24** and **26** corresponding to the sides of the mattress, and portions **28** and **30** corresponding to ends of the mattress. The broken lines defining these various portions are included merely for the purpose of illustrating the position at which the sheet is folded when it is placed on a mattress preparatory to being secured thereto. Notches **32**, **34**, **36** and **38** are provided at each corner of the sheet panel so that no overlapping of the side and end portions of the sheet is necessary when the side and end portions are folded downwardly over the edges of the mattress and secured in place. Securing strips **40** and **42** on side portion **24**, strips **44** and **46** on side portion **26**, strips **48** and **50** on end portion **28**, and strips **52** and **54** on end portion **30** are permanently attached by sewing, cementing or other suitable means to the outer corners of the respective side and end portions and cooperate with corresponding strips **56** and **58** at each corner of the mattress, mattress cover, contour pad or the like, as illustrated in FIGURE 3.

The strips attached to the corners of the sheet panel and those attached to the mattress or mattress cover are so constructed that the contacting surfaces thereof adhere firmly to one another when pressed together, thus retaining the sheet in place until it is intentionally removed by deliberately pulling the two strips apart. As shown in FIGURE 6, strips **40**, **42**, **44**, **46**, **48**, **50**, **52** and **54**, for example, each consists of a strip of fabric **70** having plastic pile **72**, the individual threads of which are resilient and flexible and are provided with a hooked configuration **74** at the free ends, and the strips **56** and **58** consist of a strip of fabric **75**, having a felt-like material **76** of plastic threads on one side formed into complete loops or hooks which become interlocked with hooks **74** of the strips on the sheet panel when the pile of the latter strips and the felt of strips **56** and **58** are pressed together. The two cooperating strips are available on the market under the trademark "Velcro" and one form of this type of securing means, somewhat different, however, from the securing means disclosed in this application, is disclosed in U.S. Patent #2,717,437 issued to G. De Mestral. Other similar types of securing means may be used in place of the Velcro type if desired, provided the two opposing strips or parts are capable of being laundered or otherwise cleaned, and can be firmly secured together by merely placing the strips in face-to-face contact and then applying a moderate

amount of pressure, and easily separated by merely pulling the two engaging surfaces apart. The type of securing means should also be of such a character that the two surfaces of the opposing strips will not be easily damaged by repeated securing operations and will not readily adhere to the other materials normally used as bedding material.

The embodiment of the present invention shown in the drawings permits the sheet to be placed on the bed with portion **22** lying flat on the upper surface of the mattress and with the side portions **24** and **26** and end portions **28** and **30** hanging downwardly over the respective sides of the mattress. Assuming that the mattress is enclosed in a mattress cover and strips **56** and **58** are secured to the corners thereof, in the manner shown in FIGURES 1 and 3, the strips secured to the corners of the side and end portions of the sheet are pressed firmly into contact with the strips **56** and **58**, respectively, on the cover, thus securing the side and end portions firmly along the sides and ends of the mattress. After the sheet has been applied to the bed in the foregoing manner, it can readily be straightend and stretched at any time by merely pulling one or more of the strips on the corners of the side or end portions from the respective strips on the mattress cover, stretching the sheet and then re-engaging the two sets of strips.

One of the special advantages of the present type of sheet is the fact that it lies flat, completely void of any pockets or recesses which would interfere with laundering, ironing, folding and storing, and that it can be readily fabricated in much the same manner as the conventional flat sheet, with very little cutting and sewing required. The securing strips are permanently secured to the sheet and mattress or mattress cover and will normally effectively secure the sheet in place with numerous securing and unsecuring operations for the normal life of the sheet.

The embodiment of the invention shown in FIGURES 7 and 8 is similar to the embodiment previously described herein, the difference consisting primarily in the length of the securing strips. In this embodiment strips **80** and **82** at each of the four corners of the sheet engage similar strips **84** and **86** at each corner of the mattress or mattress cover. If desired in this embodiment, as well as in the embodiment previously described herein, securing strips may be used along the entire edge of the side and end portion or intermittently. Variations of the broad concept of the invention described herein are disclosed and claimed in my co-pending application Serial No. 21,223 filed April 11, 1960.

A further modified form of the invention consists in placing one of the two securing strips **40** or **56** on one corner as at number **41**, and the other on an adjacent corner as at **49** and securing the two corners together after the sheet has been placed on the bed rather than having the two strips on the sheet and mattress cover. All four principal corners of the sheet are likewise constructed in this manner. This construction creates a contour sheet



without the usual pockets which interfere with laundering and folding as previously mentioned.

Still another modified form is shown in FIGURE 9 wherein a sheet is shown having a center panel **60** similar to panel **22** in the embodiment of FIGURE 2. Side panels **62** and **64**, however, are curved inwardly toward the center panel, and while end panel **66** for the top of the bed is the same width as the end of the mattress, end panel **68** for the bottom of the bed is shortened by about one-third the width of the end of the mattress, with the result that the bottom and sides of a top sheet or blanket may be fastened directly to additional Velcro strips on the mattress in the corresponding locations. Strips **40**, **42**, **44**, **46**, **48**, **50**, **52** and **54** are secured to the sheet of this embodiment in the same manner and same relative locations as those shown in FIGURE 2.

While only four embodiments of the present invention are disclosed herein, various changes and modifications can be made without departing from the scope of the specification.

I claim:

1. In combination with a mattress having a head and foot end members, a sheet comprising a rectangular flat panel, rectangular end portions secured to the end of said panel, one of said end portions being narrower than said head and foot end members, the ends of said end portions being substantially parallel with the sides of said panel, generally rectangular side portions secured to the sides of said panel, the longitudinal free edge of each side panel being concave, the ends of said side portions being substantially parallel with the ends of said panel, a strip of securing means at each outside corner of said end and side portions, and a strip of securing means operatively connected to said mattress at each vertical edge thereof, the strips on the sheet and the strips connected to the mattress having interlocking loops and hooks adhering to one another when merely pressed into contact with one another to retain the sheet in place.

2. A bed sheet and securing means construction, comprising a rectangular flat panel, rectangular end portions secured to the ends of said panel, the ends of said end portions being substantially parallel with the sides of said panel, generally rectangular side portions secured to the sides of said panel, the longitudinal free edge of each side panel being concave, the ends of said side portions being substantially parallel with the ends of said panel, said end and side portions defining rectangular notches at each corner of the sheet and one of said end portions being narrower than said side portions, and a strip of securing means at each outside corner of said end and side portions and extending inwardly from the corner toward said panel.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 2,630,587 | Brown | Mar. 10, 1953 |
| 2,717,437 | De Mestral | Sept. 13, 1955 |