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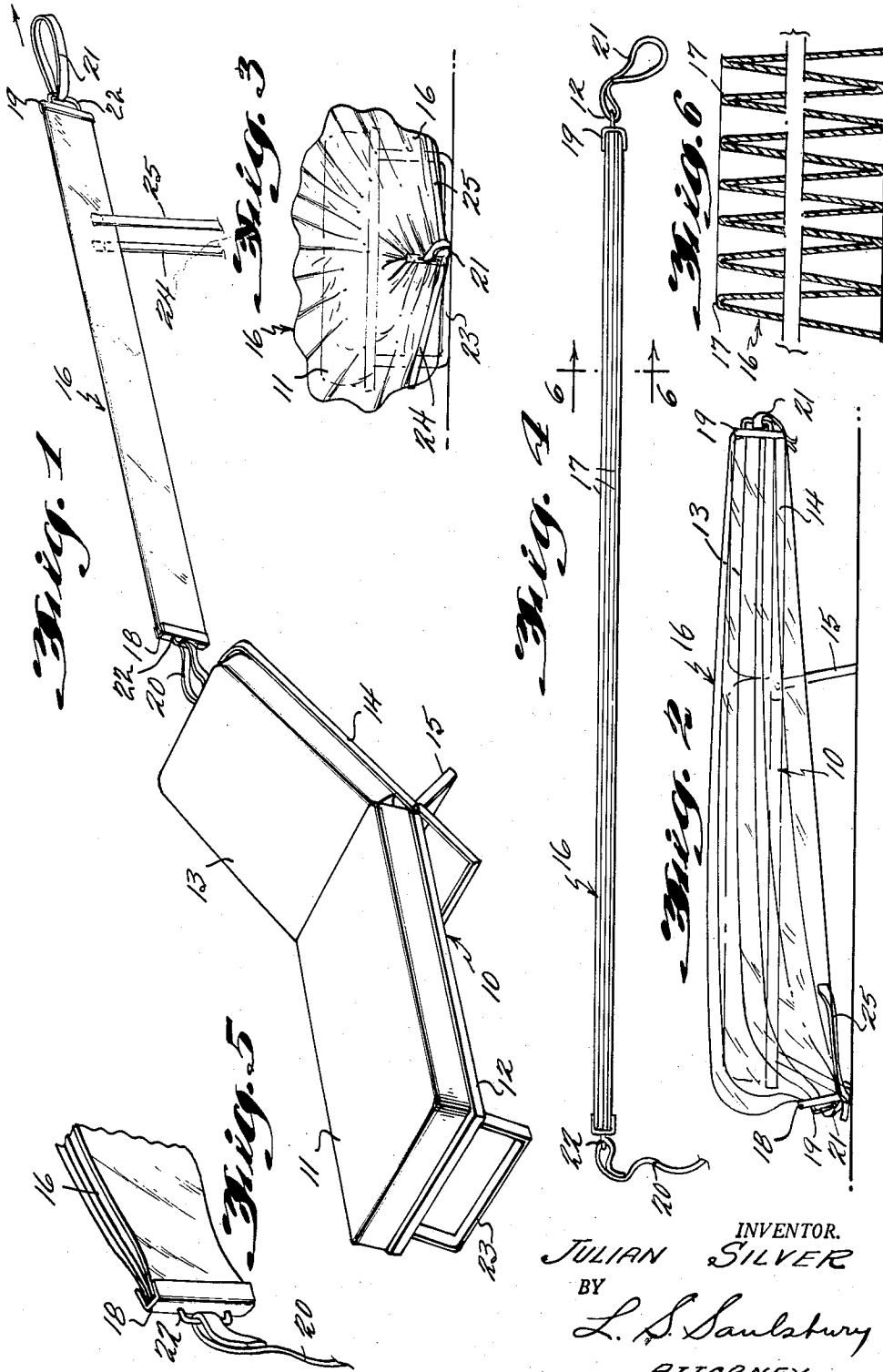
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COLLAPSIBLE COVER FOR THREE-DIMENSIONAL ARTICLES

Filed May 13, 1960

2 Sheets-Sheet 1



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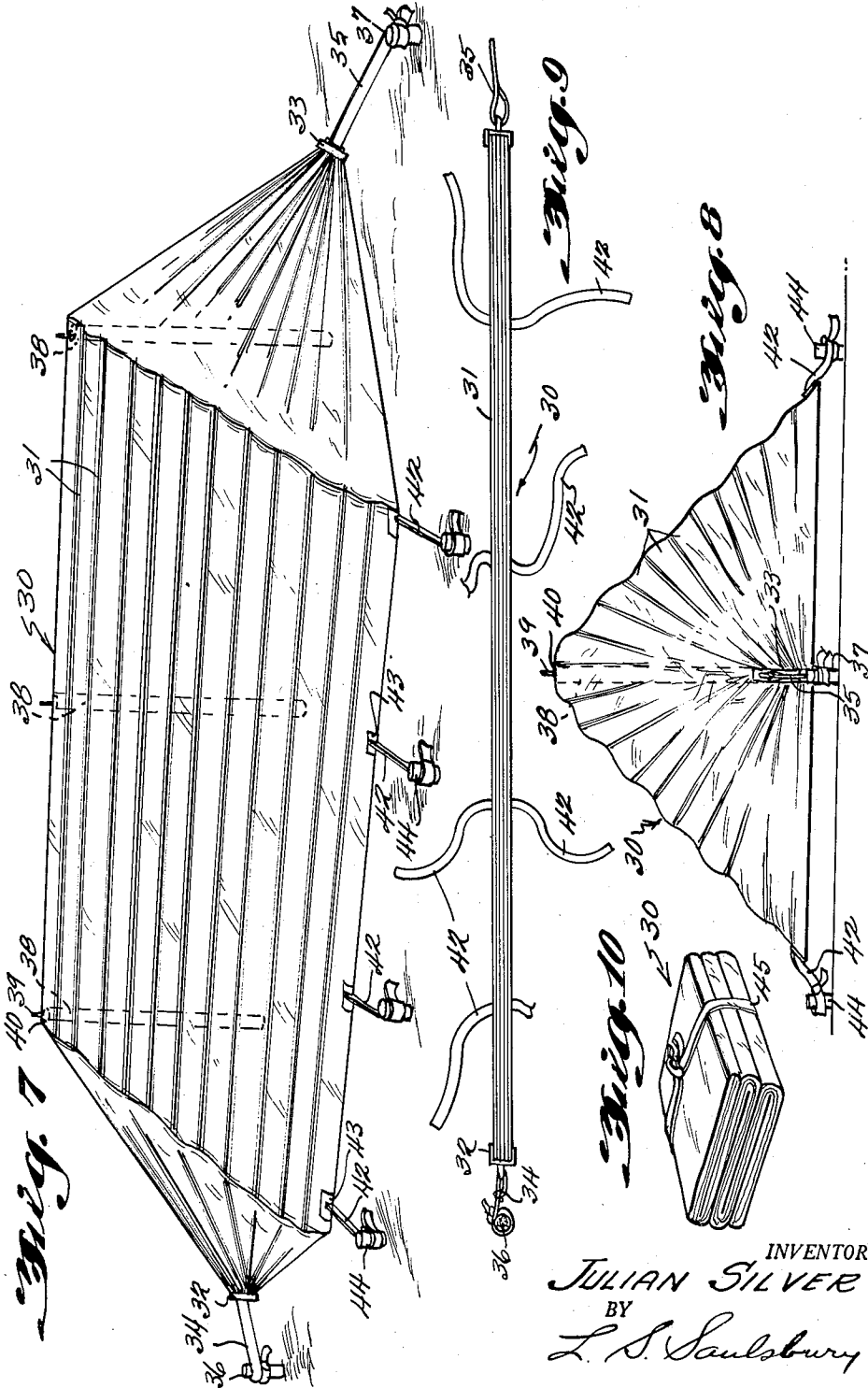
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1

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COLLAPSIBLE COVER FOR THREE-DIMENSIONAL ARTICLES

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This invention relates to a pleated collapsible, easy folding cover for automobiles, boats, bicycles, furniture, typewriters, camping equipment and other three-dimensional articles needing to be covered.

It is the principal object of the present invention to provide in combination with the article to be covered, a pleated collapsible cover that may be attached at one end to the article for fixing it against displacement to that end thereof and at the same time to provide anchorage for effecting the collapse of the pleated cover when removed from the article and in preparation of it for storage within the article.

It is another object of the invention to provide a cover of an inherent nature that will gather, conform and roughly contour itself about the article being covered to close the ends of the article and in which the gathering and contouring is such that the cover will naturally tend to be retained over, about and under the article biased to fully enclose the article and such that further means of securing the cover about the article will be substantially needless as for a flat unpleated cover needing ordinarily tie cords or weights for this purpose.

It is another object to provide a cover of a pleated type adapted for use over large three-dimensional articles with a tie or anchor strap to secure the cover to the article and a pull hand strap to make the collapse of the relatively large pleated cover easily effected by one person, man or child, when conditioning the cover for storage within the article.

It is still another object of the invention to provide a cover for large three-dimensional articles that not only can be readily collapsed for the purpose of being stored within the article, but wherein folding of the cover when preparing it for storage is effected more or less automatically by simply placing longitudinal tension upon one end of the cover while the other end is left anchored to the article.

Other objects of the invention are to provide a combined article and a collapsible pleated cover therefor, having the above objects in mind, which is of simple construction, pre-pleated, inexpensive to manufacture, light in weight, compact for storage, easy to assemble upon the article being covered, has adequate securing means, portable, durable, withstands dust and rain, effective and efficient in use.

For other objects and a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

FIGURE 1 is a perspective view of a lounge chair having three dimensions and with the pleated collapsible cover attached to one end thereof and pulled into its pleated and compact state preparatory to being stored,

FIG. 2 is a side elevational view of the pleated cover expanded and extended over the full lounge chair,

FIG. 3 is an end elevational view of the cover as extended over the opposite end of the lounge chair,

FIG. 4 is an enlarged top plan view of the pleated cover fully extended and collapsed preparatory to being opened for use or for being endwise folded and made

2

compact so as to be stored in the lounge chair under a cushion thereof,

FIG. 5 is an enlarged fragmentary perspective end view of the collapsed cover showing the end securing cleat and the tie cord extended therefrom,

FIG. 6 is an enlarged transverse sectional view showing the pleated construction of the cover and as viewed on line 6-6 of FIG. 4,

FIG. 7 is a perspective view of a pleated cover of the same general construction as provided for the covering of three dimensional articles interiorly supported and with its sides and ends tied to provide a tent,

FIG. 8 is an end elevational view of the raised tent,

FIG. 9 is a top plan view of the cover fully extended and collapsed preparatory to being folded and made into a compact storage package and with the side tie cords free, and

FIG. 10 is a perspective view of the tent storage package tied together with a tape and with the tie cords having been folded into the package.

Referring now to the figures, 10 represents a lounge chair or any other article of furniture, vehicle, business machine and the like of three-dimensions and having the need for being covered to protect it from rain or dust. This lounge chair has a seat cushion 11 resting upon bottom frame 12 and a back cushion 13 resting against a back frame 14 that has a leg 15 which supports the bottom frame 12 when the back frame 14 is outstretched in the manner shown in FIG. 2 to provide a bed. In this position, the chair may readily receive a pleated collapsible cover 16 of the present invention which may more effectively be extended thereover. The pleated cover is formed of plastic, such as polyethylene, canvas, rubberized cloth, or any other suitable covering material and has a plurality of pleats 17 folded upon one another and adapted to be laterally expanded to open over and to surround the lounge chair and conform therewith. The ends of the pleated collapsible cover have cleats 18 and 19 made firmly secure thereto and from which tie and pull loop straps 20 and 21 respectively extend. An eye 22 is provided on each cleat to which the strap 20 or 21 is attached.

By virtue of the tie strap 20, the pleated cover 16 is anchored to the back frame 14 of the lounge chair 10 or likewise in a similar manner to any other three-dimensional article. This tie strap 20 not only holds the cover when extended over the lounge chair as seen in FIG. 2 against upward displacement from the lounge chair but also serves to anchor the pleated cover 16 for the purpose of being pulled or stretched to condition it for storage. When any article such as a lounge chair is long in length, the cover is long and it requires the closed loop strap 21 by which it can be adequately snap pulled and be tensioned to straighten the pleats after having removed the cover from the lounge chair 10. Once the pleated cover has been snapped, straightened and pulled into the shape shown in FIGS. 1 and 4, it can be easily folded from end to end and made ready to be stored between the back cushion 13 and the back frame 14 without removing the tie strap 20 from the back frame 14. The tie strap 20 which is attached to the back frame 14 serves as an adequate anchor for the snap pulling and collapsing of the cover. The pull loop strap 21 not only serves for effecting the pulling of the cover to collapse it but to place the open cover over the opposite end of the lounge chair about the foot 23 thereof.

To create additional tension of the cover about the article, as where the cover is likely to be lifted by the wind, side straps 24 and 25 are fastened and tie about

3

the opposite end of the article. These straps are particularly advantageous where the sides of the cover do not fall under the lower edges of the sides of the article, such as with a boat or automobile.

This pleated cover is so shaped when opened and pulled endwise of an article that it naturally gathers itself as best seen in FIG. 3 about the end and sides of the article. But where the cover does not extend down sufficiently over the sides of the article, the cover can be secured about the end of the article by the side straps 24 and 25 that are tied under the article. The lounge chair or article with the cover thereover will thus be kept free from dust, rain and snow, and being thus attached to both ends of the lounge chair the cover will not be easily separated therefrom. Further, the cover can be easily collapsed and stored in a location where handy and made quickly ready for disposal over the article. The long cover requires upon collapsing, since it is anchored to the article, but one person, man or child, to longitudinally tension or snap pull the same outwardly as indicated by the arrow in FIG. 1 for the purpose of collapsing it. The side straps 24 and 25 are then pulled into the pleats and will not interfere with the endwise folding of the cover.

It should be apparent that a great deal of time is saved in placing this cover over the article. Since the cover gathers and roughly contours itself about the article, there is little need to tie the cover about the article beyond the use of the end tie straps 24 and 25. In other words, the cover envelopes or wraps itself about the sides of the articles and even under the lower edges thereof. With an ordinary flat sheet type of cover the same would have to be tied about the article in numerous places to keep it from being lifted from the article.

Referring now to FIGS. 7 to 10, there is shown the adaptation of the same snap folding pleated cover for use as a tent. This cover as indicated generally at 30 is similar in shape and length to the cover 16 which is used on the lounge chair 10. This cover 30 is formed of the sheet material and has sufficient length and width when opened to provide shelter for one or two persons and about the same size as the standard army pup tent. This tent is pleated as indicated at 31 and the folded ends of the pleats are secured together by fastening pieces 32 and 33. To the respective end fastening pieces 32 and 33, there are respectively connected tie straps 34 and 35 that are tied in the usual manner to respective front and rear driving ground posts 36 and 37.

Once the tent has been opened, there is placed under the longitudinal center portion of the tent, posts or poles 38 having pins 39 extending through spaced grommets 40 in the usual manner. There are three such poles and their pins can be readily inserted into the grommets 40, the grommets being provided in a central pleat intermediate the width of the sheet material so that there is an equal amount of sheet material at the opposite sides thereof.

Thereafter, the sides of the tent are pulled downwardly by tie straps 42 connected to a reinforcing piece 43 at each side edge and thereafter tied to tent stakes or side pins 44. There are four of these tie straps 42 disposed at each side edge of the tent and spaced from one an-

4

other in the manner shown in FIG. 7. Once the tie straps 34, 35 and 42 are released from the tent pins, the entire tent can be easily collapsed by simply snap pulling the ends of the sheet from one end tent pin. One of the tie straps 34 or 35 can be left tied to its pin so that this may be effected by one person pulling on the opposite tie strap. The collapsed tent material then can simply be folded endwise into a small package as shown in FIG. 10 and easily carried without consuming very much space. The tie straps 34, 35, 42 are tucked into the package and the package tied together with a cord 45. The stakes and posts can be disposed in the package or carried separately in the manner as shown, in a separate container. By having the sheet tent pleated in the manner as shown, it will be seen that it can quickly be folded and put away by one person. It will also be apparent that the tent will be made from but a single sheet and there is no requirement for the stitching together of multiple sheets to provide the sides and the ends of the tent.

It should be further apparent, that with the folds or pleats already made in the cover, it is a simple matter to join them by snapping them longitudinally so as to condition the cover for storage. In a single moment the cover can be either placed over the article or removed from the article, folded and stored therewithin. The cover is always permanently attached to the article and is a part thereof.

While various changes may be made in the detailed construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. In combination, a three-dimensional article, an elongated pleated collapsible cover adapted to be fitted over said article, said cover having a tie strap at one end thereof anchored to one end of the article, said cover having on the opposite end thereof a pull strap for drawing the pleats of the cover together when the cover is being prepared for storage, said pull strap being adapted to be grasped by the hand to snap pull and longitudinally tension the cover into its closed and collapsed condition and with the tie strap remaining anchored to the article, said pleated cover having its pleats fixed together at the ends of the cover whereby upon the cover being expanded over the article it will be drawn inwardly and about the ends of the article so as to conform and roughly contour itself thereto.

2. The combination as defined in claim 1, and further tie straps connected to the sides of the pleated cover forwardly of the pull strap and adapted to tie the cover about the opposite end of the article to hold the loop strap end of the cover thereover.

References Cited in the file of this patent

UNITED STATES PATENTS

758,642	Gorsche	May 3, 1904
1,260,612	Whall	Mar. 26, 1918
1,834,084	Barnes	Dec. 1, 1931

FOREIGN PATENTS

23,290	Great Britain	Nov. 30, 1914
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