A. V. H. MONRO.

REENFORCED COVER SHEET.

APPLICATION FILED FEB. 18, 1921.

1,411,504.

Patented Apr. 4, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

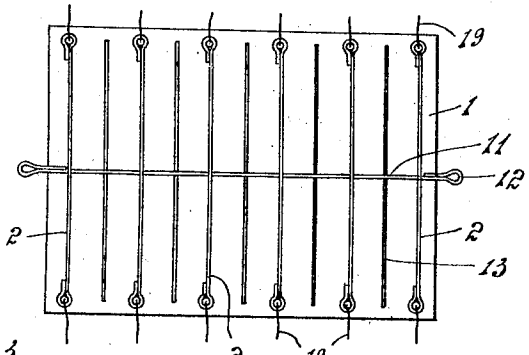


Fig. 3.

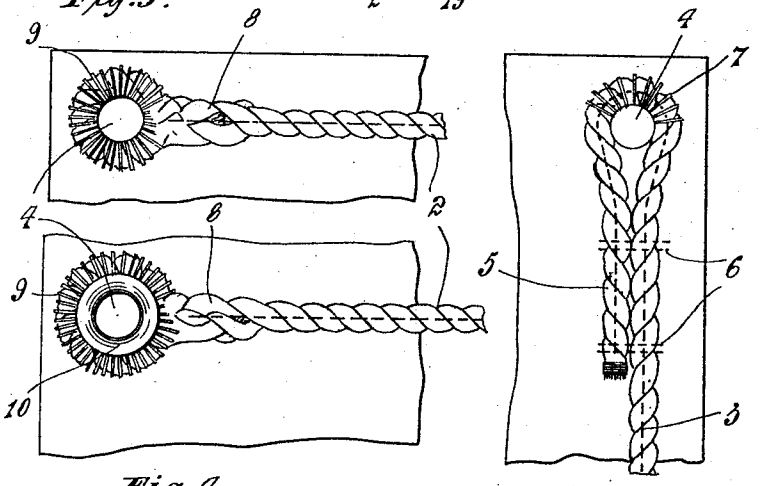
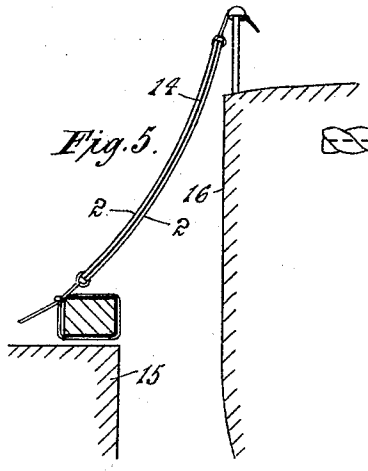


Fig. 4.

Fig. 5.



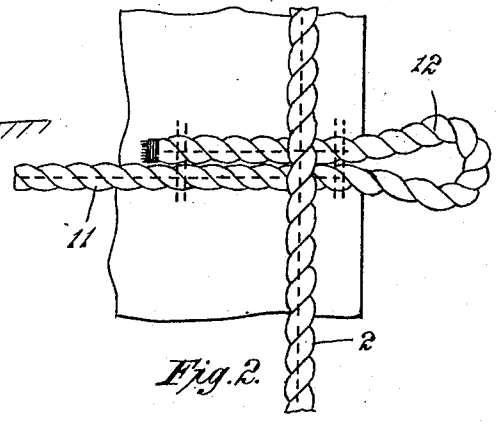


Fig. 2.

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2 SHEETS—SHEET 2.

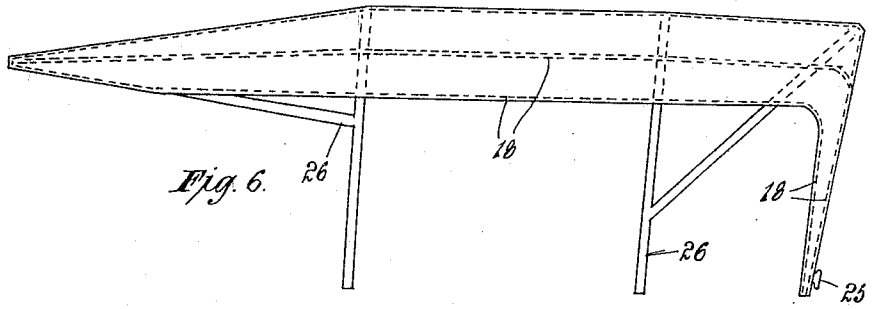


Fig. 6.

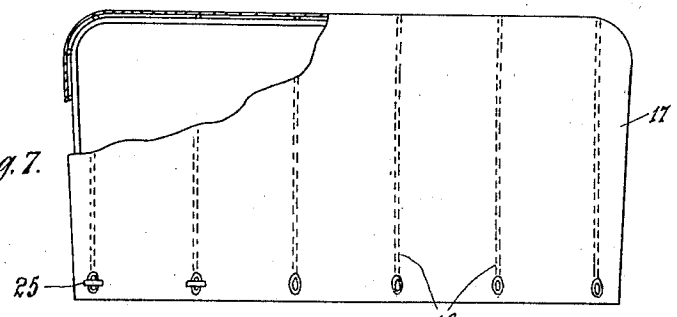


Fig. 7.

Fig. 8.

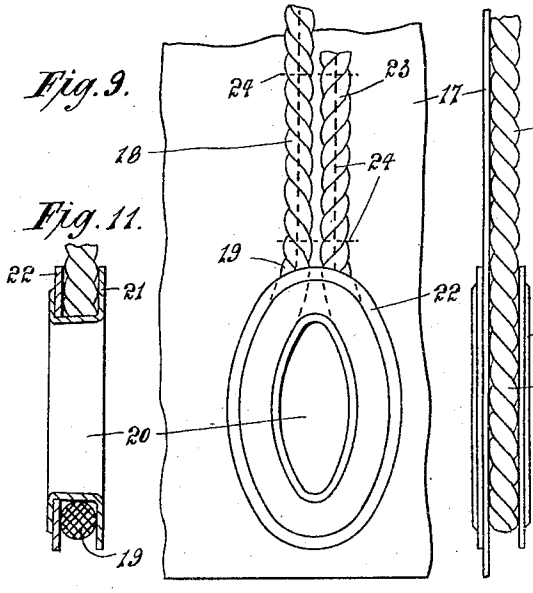


Fig. 9.

Fig. 11.

Fig. 10.

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UNITED STATES PATENT OFFICE.

ARCHIBALD VASSAL HALE MONRO, OF WELLINGTON, NEW ZEALAND.

REENFORCED COVER SHEET.

1,411,504. Specification of Letters Patent. Patented Apr. 4, 1922.

Application filed February 18, 1921. Serial No. 446,135.

To all whom it may concern:

Be it known that I, ARCHIBALD VASSAL HALE MONRO, a subject of the King of Great Britain and Ireland, residing in Wellington, New Zealand, have invented a new and useful Improvement in Reenforced Cover Sheets; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to cover sheets, and sheets which are subject to strain or chafing, such as tarpaulins, vehicle motor hoods and the like.

The object of the invention is to provide improvements in such sheets which will produce a stronger and more durable article, and at the same time reenforce the attaching means.

According to the present invention, the sheet is provided with a series of ropes sewn to the material of the sheet, the ends being so arranged as to form or strengthen the eyelet. The ropes are arranged in a direction according to the strain so that the ropes will receive the strain, while a rope or ropes may be sewn to the sheet at right angles to the other ropes and provided with eyelet holes or loops as means of attachment. This arrangement materially strengthens the sheet and evenly distributes the strain and also reduces the chafing which would normally be upon the sheet itself. The eyelet holes being formed or reenforced by the rope, the risk of the said eyelet holes being pulled out is eliminated. Additional ropes upon the same or upon the other side of the sheets may be sewn to the sheets between the eyeleted ropes to provide additional strengthening and to further resist chafing. Where chafing is to be prevented upon both sides of the sheet the ropes may be arranged alternately upon each side of the sheet.

The invention will be described with the aid of the accompanying drawings, wherein:—

Figure 1, is a tarpaulin having ropes attached.

Figure 2, is an enlarged plan showing details of the eyelet holes.

Figure 3, and Figure 4, are plans showing alternate forms of eyelet holes.

Figure 5, is a view of a save-all sheet attached to the side of a ship and to a wharf.

Figure 6, is a view of a motor car hood with the invention applied thereto.

Figure 7, is a rear view.

Figure 8, is a front view of the cover sheet therefor.

Figure 9, is a side elevation, and

Figure 10 is an end elevation of an eyelet.

Figure 11, is a section through the eyelet.

Referring now to the drawings, but first to Figures 1 to 5 which show the invention applied to tarpaulins and the like sheets, the tarpaulin 1 has a series of ropes 2 sewn along their length by stitching 3 to the inner side of the tarpaulins and parallel with the ends thereof. The ends of the ropes 2 pass around the eyelet holes 4 as shown in Figure 2, and the ends 5 are folded back upon the rope 2 as shown and secured thereto by stitching 6. The portion of the rope end encircling the eyelet hole is further secured to the tarpaulin by radial stitching 7 as shown. In Figures 3 and 4 are shown alternate methods of forming the eyelet holes. In Figure 3 the end of the rope is formed into an eye-splice 8, the eye of which is attached to the canvas over the eyelet hole 4 by radial stitching 9. In Figure 4, a similar eye-splice is formed around a thimble 10, the eyelet of the rope being secured to the canvas by the radial stitching 9. A ridge rope 11 along the centre of the tarpaulin at right angles to the ropes 2 is shown provided in Figures 1 and 2. The ends of this rope are formed into loops 12 as shown in Figure 2. The loops may, however, be made by means of eye-splices if desired. Any required number of these ropes may be employed in the way shown in regard to the rope 11. The ends of the rope forming the loop may be secured around an eyelet as shown in Figures 9 and 10. In Figure 1, are shown additional ropes 13 sewn to the sheet between the ropes 2 to provide additional strengthening and to further resist chafing.

In Figure 5, a save-all sheet 14 to which the invention is applied, is shown attached at a wharf 14 and to a ship 16. In this case the ropes would be on alternate sides of the sheet to prevent chafing on either side.

In Figures 6 to 11 is shown the application of the invention to vehicle hoods, and more particularly motor car hoods. The hood

cover 17 is provided with parallel reenforcing ropes 18 sewn to its underside. The ends of the ropes forming the loop 19 pass around the eyelets 20 which are passed through openings in the cover.

The eyelet 20 consists of an annular portion having an integral flange 21.

A flange 22 passes over the annular portion which is secured over the flange 22 in the usual way as shown.

The ends 23 of the ropes 18 are folded back and secured to the hooding by stitching 24. The eyelets are made oval in shape in order to fit over and be retained by turnbuttons 25 upon the ribs or framing 26 of the hood.

What I claim is:—

1. The combination with a cover sheet having eyelet openings arranged therein, of reenforcing members comprising a plurality of ropes secured to said sheet, and having their ends arranged around said eyelet openings for reenforcement thereof, said ropes being adapted to receive the strain longitudinally thereof, whereby chafing and strain upon the sheet proper is eliminated.

2. The combination with a cover sheet having eyelet openings arranged adjacent its edges, a plurality of ropes secured to said sheet and disposed in a direction corresponding to the strain exerted upon said sheet, said ropes having their ends arranged around said eyelet openings and secured thereto for reenforcement thereof, and additional ropes secured to said sheet and disposed between the first mentioned ropes.

3. The combination with a cover sheet having eyelet openings arranged adjacent its edges, of reenforcing members, comprising a plurality of longitudinally disposed ropes secured to said sheet and having their ends arranged around said eyelet openings for reenforcement thereof, additional ropes disposed and secured to said sheet between the first mentioned ropes, a single rope secured to said sheet transversally and intermediate the width thereof and the ends of the said single rope being arranged around said eyelet openings, said ropes being adapted to receive the strain exerted upon said sheet whereby chafing and strain upon the sheet proper is eliminated.

4. The combination with a cover sheet having eyelet openings formed therein, of reenforcing means therefor comprising a plurality of longitudinally disposed ropes secured to said sheet, each alternate rope having its ends arranged around said eyelet openings, radial stitches securing said ends of the ropes around said openings and a transversally and intermediately disposed rope secured to said sheet for providing transversal reenforcement to said sheet.

5. The combination with a cover sheet of the character described, of a plurality of ropes longitudinally secured to said sheet, eyelet openings formed adjacent the outer edges of said sheet and adapted for reenforcement with the ends of each alternate rope whereby the eyelet openings will be reenforced, and a transversally and intermediately disposed rope arranged under and over each alternate longitudinal rope, said ropes being adapted to receive the strain ordinarily exerted upon said sheet whereby chafing and tearing of the sheet is considerably reduced.

6. The improvements in sheets of the kind described, a series of ropes sewn to the material of the sheet in the direction of the strain upon the sheet, the ends of said ropes either forming or strengthening the eyelet, the ends of the ropes looped around the eyelet, and secured by stitching, and a metal eyelet passing through said looped end and through the sheet, said eyelet having flanges which secure the sheet and loop together, substantially as described.

7. Improvements in sheets of the kind described, a series of ropes stitched to the underside of the sheet in the direction of the strain, eyelet holes in said sheet the ends of said rope looped around said eyelet holes, and secured by stitching, a metal eyelet passing through said looped end and through said sheet, said eyelet securing the looped end and sheet together, and said eyelet elongated to receive a turn button, substantially as describd.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

A. V. HALE MONRO.

Witnesses:

SYDNEY H. HIGGS,
NORA MUIR.