July 11, 1972 R. L. MOSELEY ET AL 3,676,286

CORRUGATED COVERS

Filed Feb. 2, 1970 2 Sheets-Sheet 1

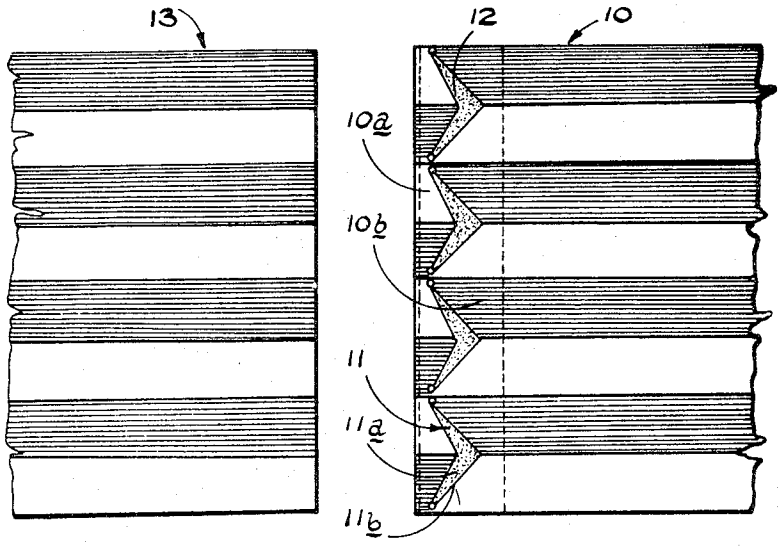


FIG. 1.

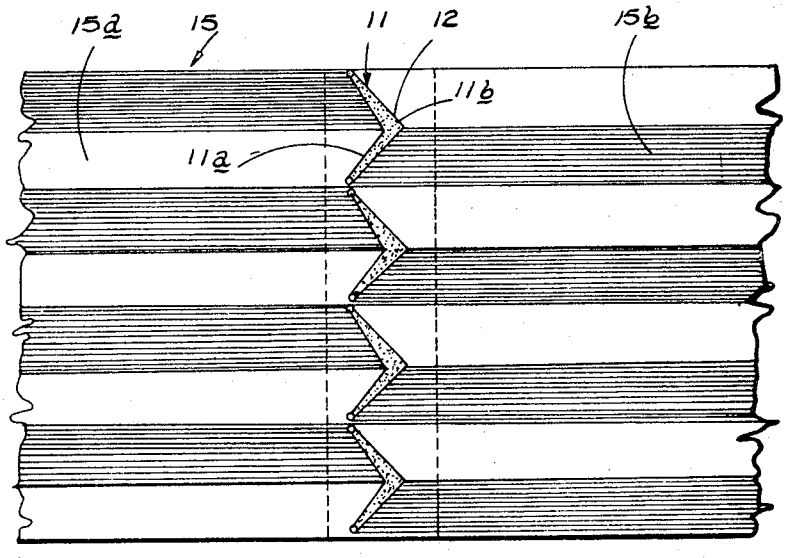


FIG. 2.

CORRUGATED COVERS

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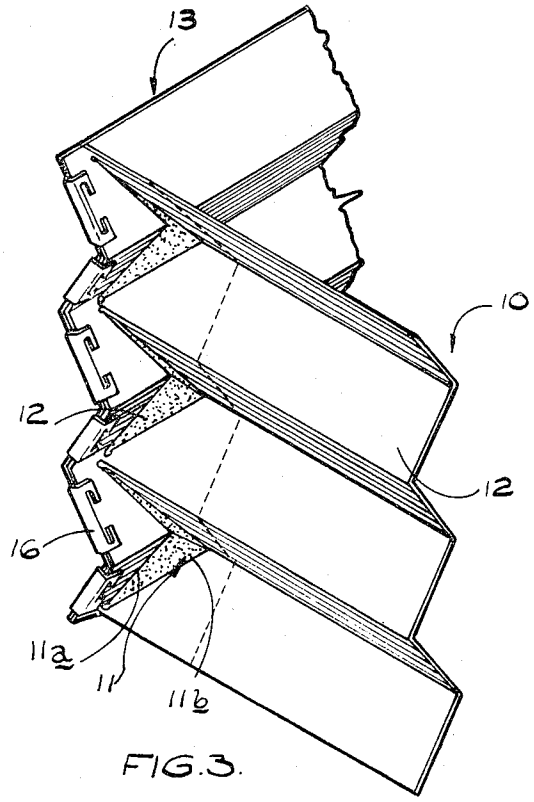


FIG. 3.

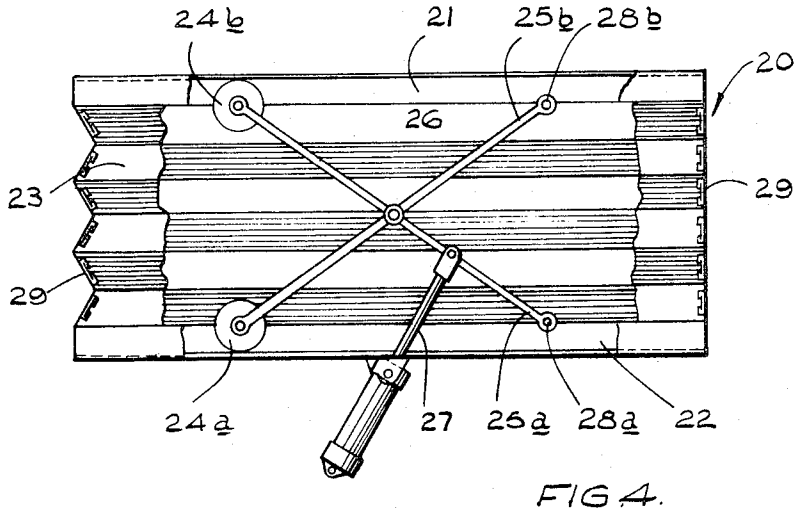


FIG 4.

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3,676,286

CORRUGATED COVERS

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Int. Cl. B32b 3/10, 3/28
U.S. Cl. 161—109 4 Claims

ABSTRACT OF THE DISCLOSURE

A corrugated cover component is formed from a sheet formed with parallel fold lines and a row of cut-outs. The cut-outs permit the part of the sheet on one side of the row to be corrugated inversely relative to the part on the other side of the row.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to corrugated covers.

Description of the prior art

Scissor hoists are at present quite commonly used and include a base, a platform which is usually rectangular and is located above the base, a scissors linkage between the platform and the base and piston and cylinder means operative to move links of the linkage to cause expansion or contraction thereof, so as either to raise or to lower the platform relative to the base.

In order to ensure that user's limbs are not allowed to become trapped between the platform and the base on lowering of the platform, curtain and barrier arrangements have been provided between the platform and the base so as to enclose the space therebetween but these curtain and barrier arrangements have not been completely successful.

It has accordingly been proposed to provide a corrugated cover operative between the platform and the base but, as scissor hoists vary in dimensions, it is desired to provide four lengths of corrugated cover material of widths approximating to the widths of the sides of the platform so that the customer can cut the lengths of corrugated cover material to the required lengths and then joint the four lengths of corrugated cover material to the sides of the base and the platform of the hoist. To enclose the space between the base and the platform completely it is necessary to joint the lengths of corrugated cover material to each other at the corners of the base and platform but no satisfactory corner connecting arrangements have been previously available.

It is accordingly an object of the present invention to provide an arrangement for connecting together lengths of corrugated cover material to form an enclosure for the operating mechanism of a scissor hoist.

SUMMARY OF THE INVENTION

A row of cut-outs is formed in a sheet to enable the part of the sheet on one side of the row to be corrugated inversely relative to the part on the other side of the row.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a plan view of part of a corner connecting component and a sheet to which it is to be connected.

FIG. 2 is a plan view of part of a sheet of a corrugated cover having cut-outs located in a central portion of the sheet.

FIG. 3 is a perspective view of the assembled corner connecting component and sheet shown in FIG. 1.

FIG. 4 is a schematic part-sectional view of a scissors hoist having a corrugated cover comprising four corner connecting components.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in FIG. 4, a scissors hoist **20** includes a base **22**, a platform **21** and a scissors linkage comprising two pairs of links **25***a* and **25***b*. The link **25***a* is pivotally secured to the base **22** by a pin **28***a* and carries a roller **24***b* which is movable along the lower surface of the platform **21**. The link **25***b* is pivotally secured to the platform **21** by a pin **28***b* and carries a roller **24***a* which is movable along the upper surface of the base **22**. The links **25***a* and **25***b* are pivotally interconnected by pins **26** to permit a scissors action to be effected by an hydraulic ram **27** which acts on link **25***a* to raise or lower the platform **21** relative to the base **22**.

A corrugated cover assembly **23** of square section is secured at one periphery thereof to the base **22** and at the other periphery thereof to the platform **21** so as to contract and expand when said platform is lowered or raised. The corrugated cover assembly comprises four sheets of corrugated cover material which are connected together as shown in FIG. 3.

As shown in FIG. 1, and FIG. 3, each corner fastening device is formed from two sheets **10** and **13** of the material from which the sides of the assembly are formed, each of said sheets being formed with a series of fold lines corresponding to the fold lines formed in the length of corrugated cover material forming the sides of the assembly so that each of said sheets can be secured in face to face relationship with one of the side members of the cover assembly.

A series of cut-outs **11** are formed in one sheet **10** of said sheets and the series of cut-outs are arranged in a row adjacent an edge of said sheet **10** and the cut-outs **11** are formed by forming a pair of zig-zag cuts in the sheet, there being a first zig-zag cut **11***a* in which each line of the zig-zag is inclined at an angle of 90% to each adjacent line with the lines of the second zig-zag cut **11***b* inclined each at an angle of say 120° to each adjacent line of that zig-zag. The two zig-zag cuts **11***a* and **11***b* are arranged so that the peaks of one zig-zag register with the peaks of the other zig-zag but the troughs of the two zig-zags **11***a* and **11***b* are spaced apart, the troughs being spaced inwardly from the edge of said sheet by a further distance than the peaks of the zig-zag. The cut-outs **11** are thus of a generally wing configuration and permit the sheet of corrugated material to be folded such that the part of the sheet on one side of the row, that is the edge portion **10***a* of the sheet, can be corrugated inversely to the main portion **10***b* of said sheet **10**.

Where we have referred to one part of the sheet being corrugated inversely relative to the other part of the sheet we mean that the portion of a fold line on one side of the row which forms a trough is in alignment with a portion of the fold line on the other side of the row which forms a peak.

A layer **12** of a fabric material is bonded to the sheet **10** so as to cover the cut-outs **11** formed therein, the material of layer **12** being more easily deformable than the resiliently deformable material from which the sheet **10** is formed.

The sheet **10** formed with the cut-outs **11** is attached to the other corrugated sheet **13** of the corner component by means of U-section metal clips **16** which are fitted over the edges proper of the two sheets **10** and **13**, the U-section clips being formed of a deformable metal so that, when they are fitted over the adjacent edge portions of sheets **10** and **13** and deformed they hold said edge portions in contact with each other.

When the edge portions have been connected together in this way the main portion **10***b* of the first sheet **10** is arranged in a plane transverse to the plane of the corrugated second sheet **13** and the two sheets can then be secured to the adjacent sides of the corrugated cover assembly.

Alternatively, corners of a corrugated cover may be produced by forming a series of cut-outs in a central portion of a sheet of corrugated material, as shown in FIG. 2. A row of cut-outs extends between the portions **15***a* and **15***b* of a sheet **15**, so that by bending sheet **15** about a line passing through the points of intersection of the cuts **11***a* and **11***b* the sheet **15** can be shaped with the portion **15***a* lying in a transverse plane relative to the portion **15***b*.

Although the invention has been described above in relation to a corrugated cover assembly for a scissors hoist, a similar corner connecting arrangement can be provided for a box-type corrugated cover for, for example, a reciprocating part of a machine tool.

We claim:

1. A corrugated cover component which comprises a sheet of a resiliently deformable material formed with a series of parallel fold lines and a series of cut-outs formed in a portion of said sheet, the series of cut-outs being arranged in a row extending normally of the fold lines and the part of the sheet on one side of said row being corrugated inversely relative to the part on the other side of said row.

2. A component according to claim **1** wherein each of said cut-outs comprises a four-sided figure defined by a pair of V's with their apices one within the other.

3. A corner coupling component for connecting together lengths of corrugated cover which are arranged in transverse planes, which component comprises a sheet of a resiliently deformable material formed with a series of parallel fold lines and a series of cut-outs formed in an edge portion of said sheet, the series of cut-outs being arranged in a row which is spaced inwardly from the edge proper of said sheet and extends normal to the fold lines and the part of the sheet between the row and the edge proper being corrugated inversely relative to the part of the sheet on the other side of the row.

4. A component according to claim **3** wherein each of said cut-outs comprises a four-sided figure defined by a pair of V's with their apices one within the other.

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U.S. Cl. X.R.

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