

Dec. 30, 1969

R. R. CHOLIN ET AL

3,486,563

FIRE EXTINGUISHING BLANKET

Filed Jan. 12, 1968

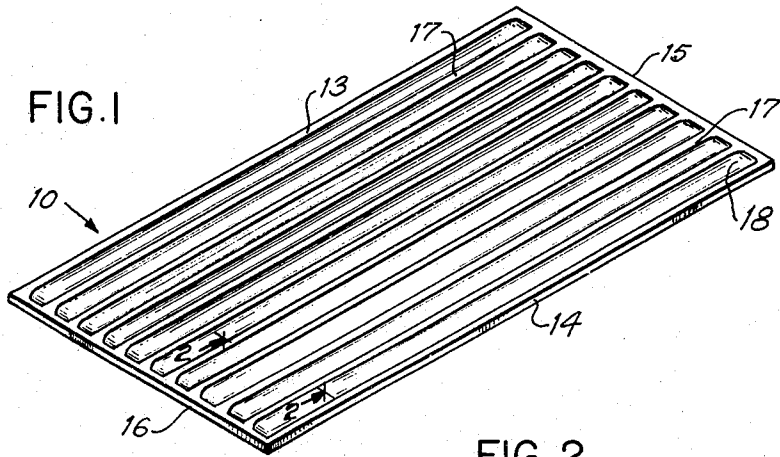


FIG. 2

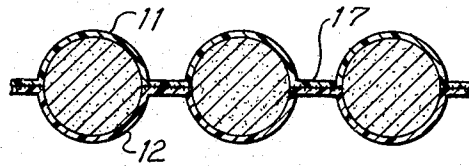


FIG. 3

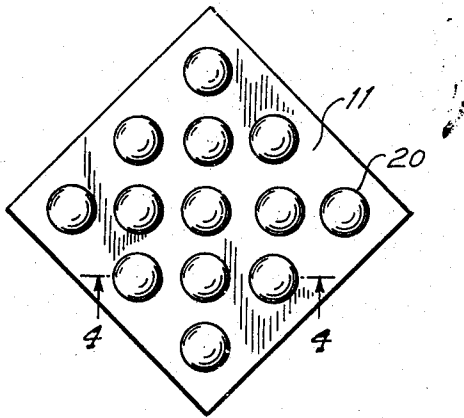


FIG. 4

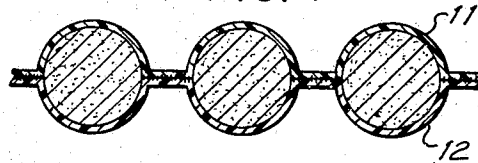


FIG. 5

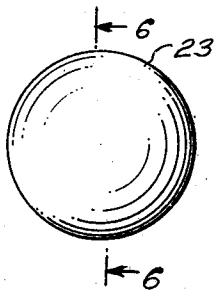


FIG. 6

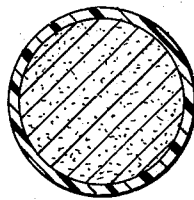
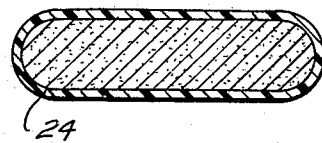


FIG. 7



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FIRE EXTINGUISHING BLANKET

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Filed Jan. 12, 1968, Ser. No. 697,526
Int. Cl. A62c 7/00

U.S. Cl. 169—26

1 Claim

ABSTRACT OF THE DISCLOSURE

This invention relates to dry powder chemicals for extinguishing fires that are enveloped or encapsulated within fire rupturable plastic film. The preferred form of the invention is a blanket having a plurality of separated compartments, each having said chemicals therein.

An object of this invention is the provision of a plastic blanket having a plurality of separated compartments, said plastic being heat rupturable at fire temperatures, said compartments containing fire extinguishing chemicals.

This and other objects of this invention will become apparent upon reading the following disclosure taken in conjunction with the accompanying drawing in which

FIG. 1 is a perspective view of the blanket having longitudinal compartments for holding the dry powder fire extinguishing chemicals.

FIG. 2 is a section view taken on line 2—2 of FIG. 1, showing the manner of forming the blanket from two sheets of plastic film,

FIG. 3 is a top plan view of a modified blanket having spherical compartments,

FIG. 4 is a section view taken on line 4—4 of FIG. 3 and showing the fusion of opposing blankets,

FIG. 5 is another form of the invention showing dry powder fire extinguishing chemicals disposed in discrete spheres of plastic film,

FIG. 6 is a section view taken on line 6—6 of FIG. 5 and

FIG. 7 is a section view of a modified form of a discrete blanket.

The blanket of this invention may be made from a pair of suitable melting point plastic film fused at suitable spaced-apart lines to form compartments, or it may be a single film forming a discrete unit.

In use, the blankets are formed to cover ceilings or passages and are secured thereto by various means but preferably by wire netting.

Turning to the drawing, a blanket 10, FIGS. 1 and 2, is made from two sheets 11 and 12 of suitable thermoplastic material. The blanket 10 is heat sealed at its edges 13,

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14, 15 and 16 as well as along longitudinal seam lines 17 to form longitudinal compartments 18.

The compartments 18 are filled with conventional dry powder fire extinguishing chemicals, for example, sodium bicarbonate at the time of manufacture.

The operable thickness of the plastic film is from about 0.002 to about 0.015 inch, but preferably the film thickness is from about 0.004 to about 0.006 inch. The release temperature for rupture of the film is from about 100 degrees F. to about 400 degrees F., but preferably from 140 degrees F. to about 220 degrees F.

Opposing sheet seams 17 may be cemented by use of suitable adhesive in lieu of being heat sealed.

FIGS. 3 and 4 show a modification of the blanket wherein a plurality of spherical compartments 20 are used in lieu of the longitudinal compartments 18. Here also a top plastic sheet 11 is selectively fused at spaced apart lines to form spheres containing dry powder fire extinguishing chemicals, introduced into the spheres at the time of manufacture.

The same effect of a blanket can be obtained by the use of discrete units 23 and 24 held to the ceiling by a wire netting.

This invention is operative with all thin meltable and burnable plastic film. In the operation of this invention, the chemically filled plastic blanket is secured to the ceiling by any conventional means. Upon rupture of the film by the heat of flame of a fire, the dry powder fire extinguishing chemicals cascade as a cloud upon the fire to extinguish it.

This invention is of generic scope and is not to be limited to the illustrative embodiments set forth herein.

We claim:

1. A multi-compartmented blanket for extinguishing fires comprising a pair of planar plastic sheets secured together along predetermined spaced-apart seam lines to form a plurality of separated compartments, said plastic sheets being about 0.004 to about 0.006 inch in thickness and heat rupturable at about 140 degrees F. to about 220 degrees F. and a suitable amount of dry powder fire extinguishing chemicals disposed in each of said compartments, whereby exposure of blanket to heat from fire ruptures of said plastic sheet to release said powder upon said fire to extinguish it.

References Cited

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STANLEY H. TOLLBERG, Primary Examiner