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D. R. M. HARVEY

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ADHESIVE PLASTER

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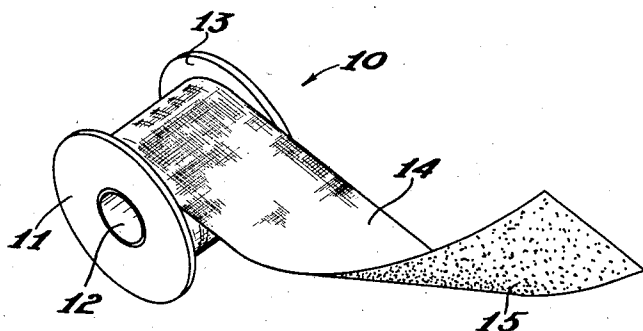


Fig 1

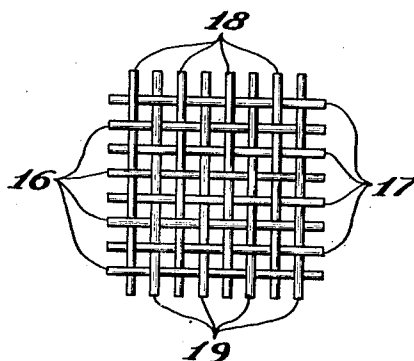


Fig 2

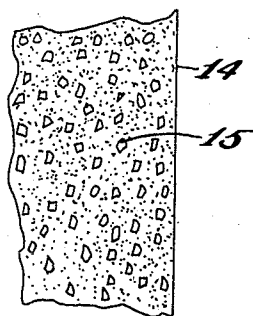


Fig 3

INVENTOR.

DAVID R. M. HARVEY

BY

Marvin Moody

ATTORNEY

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ADHESIVE PLASTER

David R. M. Harvey, Santa Barbara, Calif.

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1 Claim. (Cl. 317-2)

This invention relates in general to adhesive plaster and in particular, to a material which cannot produce sparks caused by static electricity.

Present day surgical operations utilize anesthetics which may be highly explosive. For example, ether is very explosive and when a patient is anesthetized with it, it is possible for the gas to explode and cause death due to rupture of the lung lining. In order to somewhat reduce the possibility of accidental ignition many modern operating rooms are provided with floors which do not produce sparks from static electricity. I have noticed on occasion that sparks are produced in the operating room from adhesive plaster when a portion is removed for use on the patient.

It is an object of this invention therefore to provide an adhesive plaster which will eliminate sparks caused by static electricity.

Another object of this invention is to provide a safety device for use in a hospital operating room.

A feature of this invention is found in the provision for an adhesive plaster which has a conductive backing and mastic so as to eliminate static discharges.

Further objects, features and advantages will become apparent from the following description and claim when read in view of the drawings in which:

Figure 1 is a perspective view of the adhesive plaster according to this invention.

Figure 2 is a detailed view of the fabric forming the backing of the adhesive plaster; and,

Figure 3 is a detailed view of the mastic of the present invention.

Figure 1 shows a reel of adhesive plaster designated generally as 10 and which is formed with a pair of end rings 11 and 13 which support a hollow cylinder 12 between them. The rings 11 and 13 form guides for adhesive plaster 14 which is wound about cylinder 12 in a well known manner.

The mastic is applied to one side of the tape 14 and is placed in contact with the patient.

The tape may be mounted on a roller on the wall of an operating room for example. As pointed out above

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explosive gases present in the operating room may cause an explosion which can injure the patient and medical personnel. Sparks from conventional tape have been observed by me during operations and it has been a source of uneasiness due to the explosion hazard.

Figure 2 illustrates the tape backing of my adhesive plaster. I form the backing of alternate conductive threads 16 and 18 and non-conductive threads 17 and 19. The conductive threads might be made of silver coated fibers or might be made of a solid flexible metallic material such as silver or copper.

Figure 3 illustrates the mastic side of the tape and it is seen that particles 15 may be dispersed through the mastic. These particles are greatly enlarged in Figure 3. They are made of conducting material so as to conduct point charges to the conductive threads 16 and 18 and thereby eliminate static discharge.

In operation, I provide a ground for the reel 10 and assume contact between the metal threads 16 and 18 and the reel. Due to the dispersal of particles 15 and conductive threads 16 and 18 the entire reel and tape will remain at the same potential because any charge which appears will immediately be conducted to ground through the threads 16 and 18. It is to be realized that the particles 15 are desirable also so as to prevent charges from becoming isolated in the mastic.

Conductive mastic material may be obtained from the DuPont Company.

It is seen that this invention eliminates a serious hazard in operating rooms. Although this invention has been described with respect to a preferred embodiment it is not to be so limited as changes and modifications may be made therein which are within the full intended scope as defined by the appended claim.

I claim:

A non-sparking adhesive plaster comprising, a reel of conducting material connected electrically to ground, a roll of backing tape wound on the reel, said backing tape formed of conducting and non-conducting threads, and a mastic formed with metallic particles interspersed therein deposited on one side of the backing tape.

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