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Guerra

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[54] **MEANS FOR DETECTING DENTAL OCCLUSIONS AND METHOD OF USE**

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[51] **Int. Cl.** **A61c 9/00**

[58] **Field of Search** 32/20, 21, 19, 15; 239/337, 239/15

[56] **References Cited**

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[57] **ABSTRACT**

An aerosol spray-on composition of matter comprising essentially of powdered calcium carbonate in a compatible aerosol propellant such as freon. Additional compatible agents such as an adhesive (benzoin), food-dye, and flavoring (peppermint) may also be added to the powder before suspension in the freon. In use, the powder in suspension is deposited in a thin film on the occluding surfaces of the teeth, the propellant evaporating in the air during propulsion. The broken film indicates the areas of occlusion after the mouth is naturally closed until the teeth meet, and high points in the fitting of dental work.

1 Claim, No Drawings

MEANS FOR DETECTING DENTAL OCCLUSIONS AND METHOD OF USE

The invention relates generally to dentistry and more particularly to the method and means of indicating points of occlusion when the teeth are brought together in a natural bite.

Heretofore points of occlusion have been determined by placing bits of carbon paper between the teeth and biting on them. This procedure usually does not bring about a free natural bite but one affected by the carbon paper and the inclination to grind the teeth together to ensure a marking. A paint-on-preparation washes off too quickly or smears.

It is an object of the invention to provide means for spraying a light film of powder on the occlusion surfaces of the teeth to be followed by a normal closure of the mouth and teeth in a natural bite.

Another object of the invention is to provide an adhesive powder, pleasantly flavored and contrastingly colored, suspended in a compatible aerosol propellant and packed in a spray can for spraying a film of powder on teeth or dentures on their occluding surfaces when not engaged.

Other objects and a more complete understanding of the invention may be had by referring to the following specifications and claims.

The invention, a composition of matter, comprises a mixture of the following components: powdered calcium carbonate and a an adhesive such as tincture of benzoin, suspended in a compatible aerosol propellant such as freon and packaged in a spray can such as commonly designated as an aerosol spray can. Any food-dye may be added to the suspension to provide a contrasting color, and an acceptable flavoring to impart a pleasant flavor to the suspension. When the release or control valve on the well known aerosol spay can is actuated the liquid freon propells the suspended mixture out of the can in a fine spray which is directed on the occlusion areas of the teeth. When these areas are covered by a fine film of powder, the freon evaporating in the passage from the cam to the teeth, the valve is released and the spray discontinued. The teeth are closed in a natural bite and the occluding surfaces break through the film thereby indicating their position and extent. Since the film is so fine, the patient has nothing to bite against, and the area sprayed is ascertainable only by the dentist so that no part of the bite can be favored either consciously or unconsciously by the patient, therefore this combination results in a free natural bite necessary to the proper arrangement and fitting of protheses.

A suitable combination of elements in the following proportions are favored:

calcium carbonate	5–7 percent
adhesive 1–2 percent	
freon	remaining % to total 100%.

If flavoring and food dyes are included in the mixture, their proportion by weight is subtracted from the amount of freon given above.

The recipes given above are for use in the oral cavity. For laboratory use only the calcium carbonate and freon propellant constituents are necessary where the surfaces on which the spray is used in dry.

The invention is used in the fitting and seating of crowns and bridges and the dental structures termed partials, and also complete sets of dentures. It is immaterial whether or not the dental work is fixed or removable, the fitting and adjustment is facilitated by the use of the invention.

The food-dyes and flavoring are only use in trace amounts when they are used, and of course must conform to the requirements of the pure food laws for internal use.

What is claimed is:

1. A method of detecting dental occlusions comprising the steps of: suspending a powder, compatible with an oral cavity, in a liquid also with said oral cavity and said powder, said liquid being a gas at ambient temperatures and pressures of use; storing said suspension mixture of powder and liquid under pressure sufficient to maintain said liquid state in a can having a directional spray valve; spraying said suspension mixture from said can by means of directional spray valve on separated areas of dental occlusions; closing said occlusions areas in a free bite with only said powder film therebetween thereby breaking said film at the occluding areas; separating the occlusion areas to note the broken film areas in location and extent; and rin-sing powder film from occlusion areas.

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