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CENTA, CALIFORNIA.

TOOTH PASTE.

No Drawing.

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To all whom it may concern:

Be it known that we, GERHARD KAEMMERLING and LOUIS YATES WOOD, both citizens of the United States, the former residing at Glendale, in the county of Los Angeles, State of California, and the latter residing at La Crescenta, in the county of Los Angeles, State of California, have invented a new and useful Tooth Paste, of which the following is a specification.

Our invention relates to preventive dentistry and particularly to a tooth paste. Tooth pastes are ordinarily intended to be used, preferably with a brush, for the purpose of cleaning the teeth and improving their appearance. There are very many such pastes now on the market, some of them acting chemically, some mechanically, and some both chemically and mechanically to clean the teeth. In many cases the chemically acting pastes are injurious, since they tend to dissolve or soften the enamel; and the mechanically acting pastes are equally injurious, since they contain abrasives which cut away the enamel and ruin the teeth. Other pastes, while not actually injurious, are inefficient since they do not properly remove the dangerous film which naturally forms on the teeth.

It is an object of our invention to provide a tooth paste which is very efficient but which is not injurious.

As the base of our invention we employ stannous oxide or gray oxide of tin, this being chemically known as SnO. This material has a remarkable cleansing action on the teeth, removing the film which naturally forms on the teeth and which is so destructive thereto.

We have found, however, that stannous oxide alone is not entirely satisfactory but must be combined with some other substance or substances to form a paste. In practice we employ glycerine and alcohol which may be mixed with the stannous oxide and combined with water to form a paste of the desired consistency.

We have found that such paste may be further improved by adding powdered vegetable matter which gives body to the paste, perhaps acting as an absorbent and polishing medium. We have found that powdered arrow root and powdered orris root are excellent substances to use for this purpose.

We have also found it desirable to add certain essential oils which add odor and flavor to the paste and therefore render it more pleasant to use.

In practice we make up our paste according to the following formula:

Stannous oxide-----	300 grams,	55
Powdered arrow root--	100 grams,	
Powdered orris root--	80 grams,	
Oil of sassafras-----	240 drops,	
Oil of euginol-----	50 drops,	60
Oil of cassia-----	10 drops,	65
Glycerine-----	2 ounces,	
Grain alcohol-----	1 ounce.	

To this we add water sufficient to form a paste.

We claim as our invention:

1. A tooth paste comprising: stannous oxide; and substances capable of uniting therewith to form a paste.

2. A tooth paste comprising: stannous oxide; and a vehicle suited to form a paste with said stannous oxide.

3. A tooth paste comprising: stannous oxide; absorbent material; and material suited to form a paste with said stannous oxide and said absorbent material.

4. A tooth paste comprising: stannous oxide; and a vehicle in which said oxide is carried, the vehicle being combined with water to form an emulsion.

5. A tooth paste comprising: stannous oxide; absorbent material; a vehicle in which said oxide and absorbent material are carried; and sufficient water to form a paste.

6. A tooth paste comprising: stannous oxide; powdered vegetable matter; and a vehicle.

7. A tooth paste comprising: stannous oxide; powdered vegetable matter; a vehicle in which said stannous oxide and powdered vegetable matter is carried; and sufficient water to form a paste.

8. A tooth paste comprising: stannous oxide; powdered vegetable matter; glycerine; alcohol; and sufficient water to form a paste.

In testimony whereof, we have hereunto set our hands at Glendale, California, this 8th day of November, 1923.

GERHARD KAEMMERLING.
LOUIS YATES WOOD.