UNITED STATES PATENT OFFICE.

OTTO K. ZWINGENBERGER, OF NEW YORK, N. Y.

MEDICINAL COMPOSITION CONTAINING OIL.

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To all whom it may concern:

Be it known that I, OTTO K. ZWINGENBERGER, a subject of the Emperor of Germany, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Medicinal Compositions Containing Oil, of which the following is a full, clear, and exact description.

This invention relates more particularly to solidifying castor oil, cod-liver oil and similar medical oils for medicinal purposes.

The primary object of the invention is to provide a process for deodorizing and rendering disinfectant, preserving, and solidifying medical oils and the like which are of a very objectionable character, such for example as castor oil and cod-liver oil, which are objectionable to take, owing to the repugnant taste and smell, and at the same time solidifying such oils so that the same may be conveniently handled and taken; and to provide a process which will add to these oils antiseptic and also disinfecting qualities which is especially needed in all troubles of the stomach and intestinal tract, still retaining their excellent medical virtues and entirely removing their objectionable taste and smell.

Another object of the invention is to provide an article of manufacture in the form of solidified castor oil and other medicinal oils.

A further object of the invention is to so combine the oil with a material or materials that the same may be put up in the form of powder or tablets and in other convenient ways.

With these and other objects in view, the invention will be hereinafter more particularly described, and then pointed out in the claims at the end of the description.

It has been well known that it would be very desirable, if for example castor oil could be relieved of its bad taste and at the same time rendered disinfectant, that such a process as well as the article would possess great advantage over the common means employed to simply disguise the bad taste and odor of the oils. Many attempts have been made to overcome the objections to the oils referred to by combining various liquids, as flavors, etc., and by emulsifying the oil, but such methods and others have proved very unsatisfactory.

It is well known that mixtures with flavors and the like are only a partial success, and it is important to combine with such oils a material which will not impair the medical virtues of castor oil or other oils, but which will remove the bad taste and which will bring into effect the natural medical qualities of the oils, and particularly castor oil in the shortest possible time after taking the same and simultaneously disinfecting the stomach and the intestines.

I have discovered that moss as well as its product by natural oxidation generally called peat moss or peat, fulfils more completely the many conditions required to secure the desirable results mentioned than any other material heretofore used. This is especially true considering the fact that moss as well as peat is a highly absorbent material absorbing liquids many times its own weight. Moss as well as peat owing to the fact that they contain certain organic matters are very satisfactory disinfectants, and stop especially fermentation and decomposition of organic substances, and this is particularly desirable in oils such as cod-liver and castor oils for the reason that such oils if exposed to the atmosphere will become rancid after a very short time. Both moss and peat are easily digested and also have considerable value as food. I find that moss as well as peat readily absorb castor oil and remove entirely all disagreeable and nauseating taste, and afford a way to administer castor oil in an agreeable and palatable form, retaining all its active properties as a laxative. Both these vegetable materials contain organic matters especially organic acids, and in the case of peat, humous acid and ulmic acid which act on the castor oil in the way of neutralizing or saturating certain components of the castor oil, thus taking from the latter the repugnant taste without exerting a saponifying action of the principal part of the castor oil. Besides those acids mentioned both moss and peat contain certain colloidal matters which are of the greatest importance in their relation to either moss or peat and castor oil, as these

colloidal matters prevent wet peat from being dried except with considerable difficulty, and peat once dried does not take up water again because those colloidal matters make it impermeable to water. Owing to the colloidal matters I have found that peat heavily saturated with castor oil may be easily soaked with water like a porous rubber sponge, and this taking up of water holds good with respect to a mixture of peat with cod-liver oil. This readiness to take up water by the mixture of moss or peat and castor oil is of the greatest importance for the preparation of castor oil, etc., for internal use, as it offers a way of surely and positively excluding the access of air to the castor oil.

As one method of carrying my invention into effect and for making castor oil tablets and the like, I take the following materials—one pound of castor oil; one and one-half pounds of disintegrated dried peat; and one pound of sugar; and one and one-half ounces of sodium phosphate, and about three-quarters of a pint of water.

The oil is poured into a dish or other vessel and finely powdered peat is added to the oil until a mixture is secured, which, if the oily character of the mixture is not considered, appears to be dry. To this powdered mixture of peat and oil, enough water is added to make a soft pulp, and to this pulp I may add sugar, starch or like vegetable material, and to this may be added sodium phosphate or some other soluble salts, but preferably such as are valuable in building up and strengthening the human body. By adding these materials the water-soaked pulp after due kneading to make a dough of the same is spread on a tray or similar device, and is then put into a drying apparatus, to be dried at a gentle heat in the open air, or the material may be dried in a vacuum chamber or in a closed vessel into which carbon dioxid or a like inert gas is passed to exclude the influence of the oxygen of the air. In a relatively short time, the dough may be disintegrated into fine powder, and if necessary may be mixed with sugar and then formed into tablets or any other form which may be decided on.

When the material is in a wet state and sugar or like soluble material is added to the mixture, the sugar by dissolving in the water will fill up all the channels represented by the pores of the moss or peat, and by successive drying by heat, the dry sugar will fill up all the cells or pores, and will then form a coat or crust which in a very effective way keeps off the oxygen of the air and assists in protecting the castor oil from becoming rancid.

It is a special feature of the process that after due drying, the mixture of moss or peat with castor oil or such like medical oils may be disintegrated to be formed into tablets or in any convenient form fit for internal use.

When the peat or moss is used in a wet state the proportion of water is correspondingly changed, and it will be also understood that the proportions of the other ingredients will be varied according to the strength or nature of the article to be made.

The peat and the moss contain humous acid and ulmic acid, and also colloidal bodies, and these bodies and acids serve to act on the oils to assist in preventing the oils from becoming rancid, as some of the oils, particularly cod-liver oil, become rancid in a very short time when exposed to the air, and it will be understood that the introduction of these acids may be made either with the materials mentioned as forming an element of the natural condition of the material, or the same may be introduced in other ways if desired.

From the foregoing it will be seen that oils having medicinal properties may, by the process and means herein mentioned, be converted into a solidified body to adapt the same to be made into tablets or other forms convenient for use; that said oils will have the bad taste and odor removed therefrom; that by treating the oils according to the process or method herein disclosed, the beneficial and medicinal properties of the oils are not injured; and that the material employed for treating the oils is not only digestible but also serves as disinfecting means for the stomach and intestinal tract.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. The process of treating medicinal oils, which comprises mixing the same with a material containing ulmic acid, humous acid and colloidal matter, and then drying the resulting product while subjected to an inert gas to prevent access of the air thereto.

2. The process of treating medicinal oils which comprises mixing medicinal oils with peat, and after adding water to this mixture transforming the mixture into pulp, adding suitable soluble medicinal salts to the pulp, kneading the mixture, drying the product resulting therefrom at a moderate temperature while subjecting the same to an inert gas to exclude the action of air, and finally disintegrating the product to a fine powder.

3. The process of treating medicinal oils which comprises mixing a medicinal oil with peat, adding water to this mixture, transforming the mixture into pulp, kneading the mixture, drying the product resulting therefrom at a moderate temperature, and finally disintegrating the product into a fine powder.

4. The product of treating medicinal oils which comprises mixing medicinal oil with peat, transforming the mixture into pulp with water, kneading the mixture, drying the product resulting therefrom at a moderate temperature, while subjecting the same to an inert gas to exclude the action of air, and finally disintegrating the product into a fine powder.

5. The process of treating medicinal oils which comprises mixing a medicinal oil with peat, adding water to this mixture, transforming the mixture into pulp, adding sugar and a suitable soluble medicinal salt to the pulp, kneading the mixture, and drying the product resulting therefrom.

6. As an article of manufacture, a medicinal composition comprising castor oil and peat.

7. A tablet comprising castor oil, disintegrated dried peat, sugar and sodium phosphate.

8. A tablet which comprises castor oil, and disintegrated dried peat.

9. A medicinal preparation containing castor oil, peat, sugar and sodium phosphate in substantially the proportion specified.

10. A medicinal preparation comprising castor oil, peat, and sodium phosphate in substantially the proportion specified.

11. A tablet comprising an edible oil having medicinal properties, disintegrated peat, sugar and sodium phosphate.

12. A tablet comprising an edible oil having medicinal properties, peat and sodium phosphate.

This specification signed and witnessed this 19″ day of April A. D. 1909.

OTTO K. ZWINGENBERGER.

Witnesses:
M. F. KEATING,
M. DINNHAUPT.