

UNITED STATES PATENT OFFICE

2,430,740

THERAPEUTIC DRESSING

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9 Claims. (Cl. 167-84)

1

This invention relates to therapeutic dressings which may be conveniently and efficiently applied to the affected part. This application is a continuation in part of my prior application Serial Number 348,553, filed July 30, 1940.

Mineral medicaments are especially difficult of application and usually may be practically used only when reduced to a powder. Such form, however, is usually wasteful in application, variable in concentration and shiftable in position and otherwise does not lend itself readily to the formation of convenient and efficient dressings.

According to the present invention, the mineral medicament is reduced to a fibrous form similar to absorbent cotton. In the process of producing fibers the medicament is molten at which time there may be introduced into it other desirable ingredients which are then contained in the fibrous or filamentary product.

In order to spread the medicament over a larger area and provide a carrier for it, a fibrous mineral medicament may be mixed with fibers which are inert therapeutically. Such latter fibers may be vegetable, such as cotton or an animal fiber, such as wool.

Thus, boric acid which is a commonly used medicament may be made into the form of fibers by melting it and thereafter forming fibers from the molten material in the same manner that fibers are formed from glass, in any suitable manner, for instance in the manner described in the U. S. Patent No. 2,156,316, issued to Games Slayter and John H. Thomas, which discloses the so-called melted and blown method of forming fibers, or in the manner illustrated in U. S. Patent No. 2,165,318, issued to John H. Thomas and Ed Fletcher, which discloses a so-called spinnerette method, or in the manner illustrated in U. S. Patent No. 2,287,557, issued to Dr. Piero Modigliani which discloses a continuous drawn fiber method, or in the U. S. Patent No. 2,156,982, issued to Charles J. Harford and Earl Stafford, which discloses the so-called spin throw method.

The melting operation causes the boric acid to become boric oxide so that the fibers as formed from the molten boric acid are fibers of boric oxide. The addition of water to boric oxide, however, produces boric acid, the oxide being very unstable, so that when the fibers of boric oxide are applied to the affected part the moisture of the body or other added moisture will cause the formation of boric acid.

The fibers produced from boric acid may, if desired, be mixed with a therapeutically inert fiber, such as absorbent cotton. A proportion of

2

the mixed fibers which is of general usefulness is ninety percent (90%) of cotton fiber and ten percent (10%) of the boric acid fiber.

It may be desirable to have contained in the therapeutic fibrous material antiseptic materials or other therapeutically active materials as for instance silver oxide or zinc oxide. Such materials may be introduced into the molten boric acid just prior to its reduction to the fibrous form so that the resulting fibrous material will accordingly contain such antiseptics and will act upon the affected parts to which it is applied. This treatment causes the metallic oxide to lose its oxygen so that the metallic silver or zinc is present in the produced fibers as a colloidal dispersion, that is an extremely fine state of division which enhances its beneficial effect upon the affected parts.

Sodium chloride, which is known to have beneficial therapeutic effects, may be embodied in the fibers formed from boric acid by adding sodium chloride in desired amounts to the molten boric acid prior to forming it into fibers.

Fibers thus formed may be thoroughly intermixed with therapeutically inert fibrous material where it is desired to do so and this mixture of therapeutically active and therapeutically inert fibers may be used as a therapeutic dressing. The medicated fibers either by themselves or admixed with therapeutically inert material may be applied to the affected parts in the same manner as absorbent cotton or surgical gauze would be applied.

While the invention has been illustrated in what are considered its best applications, it may have other embodiments without departing from its spirit and is not therefore limited to the precise materials or proportions nor to the precise details of the method of formation as recited.

I claim:

1. A therapeutic dressing comprising in combination therapeutically active filamentary fibers having the form of cotton and composed of melted and blown boric acid and therapeutically inert fibers thoroughly mixed therewith.

2. A therapeutic dressing comprising filamentary fibers having the form of cotton and composed of melted and blown boric acid in combination with fibers of cotton.

3. A therapeutic dressing comprising filamentary fibers having the form of cotton and formed from melted and blown boric acid and another therapeutically active material, said boric acid and other therapeutical material being mixed and melted together before being blown.

3

4. A therapeutic dressing comprising filamentary fibers having the form of cotton and formed from melted and blown boric acid and a silver salt, said boric acid and silver salt being mixed and melted together before being blown.

5. A therapeutic dressing comprising in combination filamentary fibers having the form of cotton and formed from a mixture of melted and blown boric acid and at least one other therapeutic active material, and fibers of therapeutically inert material.

6. A therapeutic dressing comprising in combination filamentary fibers having the form of cotton and formed from a mixture of melted and blown boric acid and at least one other therapeutic active material, and therapeutically inert cotton fibers.

7. A therapeutic dressing comprising in combination therapeutically active filamentary fibers having the form of cotton and made from boric acid and therapeutically inert fibers thoroughly mixed therewith.

8. A therapeutic dressing comprising in combination therapeutically active filamentary fibers having the form of cotton and composed of

4

melted and spun boric acid and therapeutically inert fibers thoroughly mixed therewith.

9. A therapeutic dressing comprising in combination therapeutically active filamentary fibers having the form of cotton and composed of melted and drawn boric acid and therapeutically inert fibers thoroughly mixed therewith.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
401,547	Francken et al.	Apr. 16, 1889

FOREIGN PATENTS

Number	Country	Date
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2,635	Great Britain	1877

OTHER REFERENCES

Pharmaceutical Recipe Book (1929), page 19.
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