

C. ELLIS.
INSECTIFUGAL TAPE.
APPLICATION FILED AUG. 30, 1909.

1,005,180.

Patented Oct. 10, 1911.

Fig. 1.

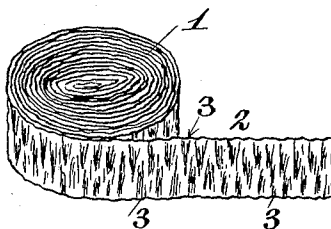
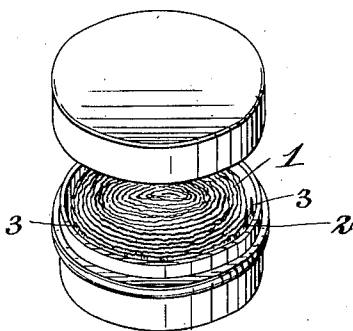


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

CARLETON ELLIS, OF MONTCLAIR, NEW JERSEY, ASSIGNOR TO ELLIS-FOSTER COMPANY,
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INSECTIFUGAL TAPE.

1,005,180.

Specification of Letters Patent.

Patented Oct. 10, 1911.

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To all whom it may concern:

Be it known that I, CARLETON ELLIS, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Insectifugal Tape, of which the following is a specification.

This invention relates to a new article of manufacture for use as an insectifuge, and in particular, for warding off attacks of mosquitos.

The usual preparations for driving away mosquitos comprise odoriferous essential oils or oily pastes which are often of a greasy nature or contain a non-volatile thickening material of an offensive character.

My invention, as a new article of manufacture, consists in a roll or tape of absorbent material such as paper, cloth, etc., carrying in its fibers an impregnating or saturating amount of an essential oil of a character adapted to ward off the approach of mosquitos or other insects.

In preparing my improved article of manufacture, I preferably take tissue paper of the type known as crepe or crinkly, cutting this into narrow strips of about three-eighths to one-half inch in width, and from say three to six yards in length. This is rolled into a firm coil of about one and one-half or two inches in diameter. The coil is then impregnated with suitable essential oil material. For this purpose I find a mixture consisting of twenty-one parts of oil of lemon grass, seventeen parts of oil of cedar leaf, twenty parts of heavy oil of camphor, and seven parts oil of wintergreen leaves to be satisfactory. If it be desired to have the oil fixed to a greater extent in the fibers of the paper, I make use of such thickening material, for example, as soap, a suitable formula consisting of oil of lemon grass, seven parts; oil of mace, one part; oil of wintergreen leaves, one part; oil of cedar leaf, four parts, and oil of camphor, three parts, diluted with an equal volume of alcohol and carrying a saturating quantity of soap. To effect solution of the soap, I ordinarily take well dried and finely pulverized sodium or potassium soap, such as stearate or palmitate, and heat the soap with the essential oil and alcohol mixture until the solution becomes saturated with the soap. This solution is allowed to

settle and the clear portion decanted from any sediment, and while still hot and fluid, is readily absorbed by the paper coil. On cooling, the composition sets in the fibers of the paper to form a firm mass. In this way, the paper coil is freed from superficially adhering fluid oils, so that the hands or clothing are not soiled by contact therewith. A mixture of concentrated sulfated or sulfonated oil or soluble oil, as it is commercially known, with dry soap is an excellent thickener.

By reference to the accompanying drawing, the manner in which my invention is carried out may be clearly seen.

In the drawing, Figure 1 depicts a body strip or portion as a coil of crinkly tissue paper impregnated as hereinbefore described, while Fig. 2 shows the coil as packaged for shipment.

In the drawings, 1 indicates the coil made up of the tape 2 carrying a saturating amount of the odoriferous essential oil in the crinkles 3 as hereinbefore set forth. In packaging the roll for shipment, the outer end of the paper tape is preferably fastened by some adhesive material to the immediate underlying layer.

If desired, the tape may be perforated across its width at suitable intervals to facilitate the removal of a small portion at a time.

If the use of alcohol becomes undesirable in the impregnation of certain classes of absorbent material in conjunction with a soap thickener, the alcohol may be omitted by proceeding as follows:—Twenty parts of the essential oil mixture are heated with one part each of anhydrous sodium stearate and potassium oleate and two parts sodium sulfocinoleate until solution is effected. The paper is then impregnated with this mixture while the latter is hot and fluid.

Instead of embodying in the form of a coil, the absorbent tape may of course, be variously shaped into other forms suitable for carrying out the purposes of this invention.

In using this new article of manufacture in the coil form, a strip of say five or six inches may be torn off when desired and may be hung at the point where it is desired to drive away the mosquitos, the odors of the essential oils arising from the paper effectually driving away mosquitos from the

vicinity. By the use of the crinkly paper, a very large evaporating surface is secured from a comparatively short strip of the tape, so that even by the use of a very short
5 length of the tape, mosquitos are driven away from a relatively large area.

With this new article of manufacture, there is less likelihood of soiling the hands or clothing, and there is no offensive residue
10 to be removed, as is the case with many mosquito pastes and greases. The tape may be pinned to the clothing or fastened in the hair or hung on articles of furniture and the like, and on account of the readiness
15 with which it gives off the vapors of essential oil due to the crinkly character of the paper tape employed in the preferred embodiment, the device is one of great utility.

Having described my invention, to the details of which I do not wish to limit myself, 20 what I claim is:—

As a new article of manufacture, an insectifugal tape comprising a body portion made in strip form and wound into a spiral, 25 said body portion being composed of thin absorbent fibrous material having a roughened surface and carrying in its fibers a mixture of substantially volatile essential oils of an insectifugal character.

In testimony whereof, I have affixed my 30 signature in presence of two witnesses.

CARLETON ELLIS.

Witnesses:

BIRDELLA M. ELLIS,
CHARLES H. DE BUISSON.