

UNITED STATES PATENT OFFICE.

HEINRICH HELBING, OF LONDON, ENGLAND.

VESICANT.

SPECIFICATION forming part of Letters Patent No. 649,692, dated May 15, 1900.

Application filed February 20, 1899. Serial No. 706,090. (No specimens.)

To all whom it may concern:

Be it known that I, HEINRICH HELBING, of London, England, have invented certain new and useful Improvements in the Preparation and Application of Vesicants, of which the following is a specification.

The object of this invention is the preparation and improved application of solutions of vesicants—such, for example, as mustard-seed oil, (ol. sinapis,) the active principles of capsicum, (capsicin,) and the active principles of cantharides—which may be beneficially employed in medicine.

It is well known that the blistering effect of wet poultices of mustard-seed on the skin is due to the essential oil liberated by the action, in the presence of water, of a peculiar ferment contained in the seed upon a constituent of a glucosidal nature. The oil itself in more or less diluted form can be used to produce irritation and blisters of the skin. Likewise capsin or the active principles of capsicum and cantharides or the active principles of cantharides, all in the form of alcoholic or ethereal extracts, are used for similar purposes.

The present invention consists in dissolving vesicants, such as oil of mustard-seed and the active principles of capsicum and the active principles of cantharides, separately or together, with or without the addition of alcohol or ether, in such liquid anesthetics as ethyl chlorid or methyl chlorid. I preserve the solution in bottles having a capillary orifice hermetically closed with a detachable cap, and I automatically spray, by means of the vapor-pressure of the solvent, a fine jet of the solution upon the skin-surface where it is desired to produce a rubefacient or blistering ef-

fect. In the place of ethyl chlorid or methyl chlorid any indifferent solvent sufficiently volatile to have a noticeable anesthetic action and to quickly evaporate and leave the vesicant exposed to the atmosphere in a thin layer on the skin, such a one boiling below 30° centigrade, may be employed. As the solvent immediately evaporates upon the skin, owing to the warmth of the body, a fine layer of the vesicant or blistering or rubefacient agent is obtained on the surface selected, and the action of the medicament is conveniently localized. This simple method of application of vesicants presents many advantages over the more cumbersome form of poultices, plasters, tinctures, and the like, both in application and effect, the relief incident to the preliminary anesthetic action of the highly-volatile solvent being alone of great importance.

What I claim, and desire to secure by Letters Patent, is—

1. As a new article of manufacture a solution of a vesicant in an indifferent anesthetic solvent having a boiling-point below 30° centigrade.

2. As a new article of manufacture a solution of a vesicant in ethyl chlorid.

3. As a new article of manufacture a solution of mustard-seed oil in an indifferent solvent having a boiling-point below 30° centigrade.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HEINRICH HELBING.

Witnesses:

WILLIAM H. THORNS,
ROBERT M. SPEARPOINT.