

UNITED STATES PATENT OFFICE.

CLEMENS OSCAR KLEBER, OF CLIFTON, NEW JERSEY.

PERFUME.

969,636.

Specification of Letters Patent.

Patented Sept. 6, 1910.

No Drawing.

Application filed February 1, 1910. Serial No. 541,385.

To all whom it may concern:

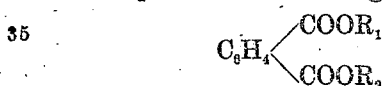
Be it known that I, CLEMENS OSCAR KLEBER, a citizen of Germany, residing at the village of Clifton, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Perfumes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object the provision of improved perfume bases and also has for its object the manufacture of new and improved perfumes by the use of such new and improved bases.

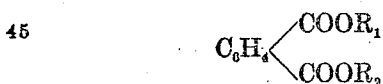
In the manufacture of perfumery, the base or solvent for the odoriferous and other substances used should have the following properties:—It should be colorless, odorless, have a very low freezing point, be non-poisonous, non-irritant to the skin and only slowly volatile but must have good solvent properties. At present, as the base or solvent in the majority of perfumes manufactured, alcohol is used.

It is apparent that not many substances respond to all of the above tests but I believe I have discovered a series of compounds which are suitable for this purpose as hereinafter described.

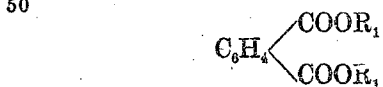
I have found by experiment that the esters of orthophthalic acid of the general formula



in which R_1 and R_2 represent any alkyl radical such as methyl, ethyl, propyl, butyl, amyl, etc., or their isomers fulfil the above tests. It is of course, understood, that instead of esters of ortho-phthalic acid of the formula

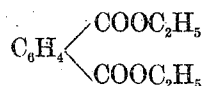


esters of ortho-phthalic acid of the general formula

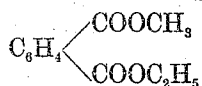


in which the same alkyl radical is present in both carboxyl groups are equally satisfactory. In practice I have found that as

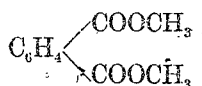
examples of such solvents or bases which are satisfactory, di-ethyl esters of ortho-phthalic acid



methyl-ethyl esters of ortho-phthalic acid



and di-methyl esters of ortho-phthalic acid



but it will be apparent from the constitution of phthalic acid that a large number of esters of phthalic acid may be employed for this purpose. The esters of isophthalic and terephthalic acids of the formulæ



and $\text{C}_6\text{H}_4(\text{COOH})_2(1:4)$ may also be used for this purpose but are at present of no practical importance.

The neutral esters of ortho-phthalic acid such as I employ are colorless, practically odorless, have a low freezing point, are not readily inflammable, do not irritate the skin and are non-poisonous. They are miscible with alcohol, ether, chloroform and glycerin in all proportions. They are excellent solvents of the various essential oils, balsams, synthetic compounds such as artificial musk, cumarin and other substances used in the manufacture of perfumery, and while themselves possessing the properties of blending the various odoriferous materials in a satisfactory manner are comparatively stable and without chemical action on the substances dissolved. On account of their high boiling points ranging between 275 and 325 degrees, they volatilize very slowly but finally completely without leaving any stain on fabrics.

As an example of a perfume made with esters of ortho-phthalic acid, I take 95 parts of the di-methyl ester of ortho-phthalic acid and dissolve in same one part each of the following substances, oil of bergamot, oil of geranium, ionone, linalol and tincture of musk, the whole comprising 100 parts. This combination will make a very strong perfume and it is evident that the foregoing

formula represents only a single illustration of a perfume made with an ester of ortho-phthalic acid as I do not wish to be limited to the use of any specific perfumery substances or any specific proportion of same in the solution of the ester or esters of ortho-phthalic acid.

When used as perfume bases, the odoriferous material and the base volatilize very slowly, the base serving to prevent the too rapid volatilization of the perfume although slowly and completely volatile.

What I claim is:—

1. The combination comprising an ester of ortho-phthalic acid and essential oils.
2. The combination comprising a neutral ester of ortho-phthalic acid and essential oils.

3. The combination of an ester of ortho-phthalic acid, essential oils and synthetic perfumes.

4. The combination of a neutral ester of ortho-phthalic acid, essential oils and synthetic perfumes.

5. The combination comprising an ester of ortho-phthalic acid and perfumery oils soluble therein.

6. The combination comprising an ester of ortho-phthalic acid and odoriferous slightly volatile perfumery substances soluble therein.

In testimony whereof I affix my signature in presence of two witnesses.

CLEMENS OSCAR KLEBER.

Witnesses:

WALTER KIP,
SARA D. BOFFARD.