WATER-SOLUBLE ESSENTIAL OILS AND PERFUMES.

To all whom it may concern:

Be it known that I, Friedrich Braunlich, a citizen of Czechoslovakia, residing at Aus-
sig, Czechoslovakia, have invented certain
new and useful Improvements in Water-
Soluble Essential Oils and Perfumes, of
which the following is a full, clear, and ex-
act description.

My invention relates to water soluble essen-
tial oils and perfumes and the method of
making the same.

To perfume water used for wash-
ning and bathing, there is commonly used
either alcoholic solutions of essential
oils and perfumes, or salts, either in
powder or tablet form, containing perfume.
These preparations, however, have certain
well-recognized disadvantages. For in-
stance, the alcoholic solutions are not con-
venient to handle and are expensive. The
salts are not satisfactory both because their
ability to take up or absorb the perfumes is
limited, and also because they frequently be-
come useless after a short time due to the
fact that the perfumes are not brought into
water soluble form and hence shortly change
their odor due to chemical reactions.

The object of the present invention is the manu-
facture of concentrated solutions of es-
sential oils or perfumes which are unalter-
able and which are water soluble or miscible
with water. I have discovered that a very
superior product for this purpose is formed by
dissolving the oil or perfume in a rela-
tively small quantity of fatty oil which has
been rendered water soluble by sulphonation,
such as an alkali or ammonium salt of sul-
phonated fats or sulphonated fatty acids.
Perhaps the best results are obtained with
the alkali salt of ricinoleo-sulphuric acid,
commonly known as Turkey red oil, al-
though my invention is in no wise limited to
that solvent.

It will be found that, while some times
the essential oil or perfume will com-
pletely dissolve in the sulphonated fatty oil
which has been at least partially neutralized
with an alkali or ammonia, without the em-
ployment of any other agent, in most cases
the result will be an unhomogenous, cloudy,
thick solution unsuitable for the purpose in-
tended. If to such solution a suitable quanti-
ty of a solid anhydrous or water binding
salt be added, complete dissolution takes place
in a short time and the liquid clears up and
becomes very fluid and easily movable. A
suitable salt for this purpose is an alkali-
carbonate, although an alkali-hydroxid or
other anhydrous salt, such as calcinated sodi-
um sulphate, may be used with substantial-
ly the same effect. The anhydrous alkaline
clearing agent does not enter into the com-
position of the perfume mixtures.

The following example may be given as
an illustration of my method: 5 kilos of es-
sential pine needle oil are mixed with 1
kilo of Turkey-red oil, and to the thick
cloudy mixture which eventually can be
warmed up somewhat, 200 grams of anhy-
drous potassium carbonate are added. Af-
ter repeated stirring and settling the oils
combine to a clear liquid of low viscosity.
The liquid may now be separated and is
capable of absorbing with ease a further
quantity of essential oil. In practice the
further essential oil will be added as long
as the mixture is still water soluble, or in
other words, as long as particles of oil do
not separate and rise to the top of a water
solution. In the example above given from
8 to 10 kilos of pine needle oil may still be
added.

The proportions above given can be varied
within a wide range according to the nature
of the essential oil and also according to the
purpose for which the solution is intended.
The alkali carbonate may be reused after
drying and calcination.

The perfumes so obtained may be diluted
by addition of glycerine, benzylbenzoate, bensyalcohol, etc. Especially ethylalcohol
is well adapted as a dilutory agent, inasmuch
as it reduces also the rather high viscosity
of the mixtures. For example a product
which contains glycerine and which is al-
most completely water soluble may be made
as follows: 1 kilo synthetic terpineoil is
mixed with 2 kilos of glycerine and 1 kilo
of Turkey-red oil, and 200 grams of anhy-
drous sodium carbonate is then added to the
slightly warm mixture. The solution ob-
tained, which clears up after a definite
period, can be modified by the addition of
glycerine or perfume.

In the same manner solid perfumes like
vanilline, heliotropine, coumarine, etc., can
be converted into permanent solutions. For
distinctive purposes these solutions can be
colored by the addition of dyes.

The perfume solutions as manufactured
according to the above process, are clear liquids of unlimited permanence and are suitable for use as additions to the bath, for perfuming, mouth wash, and kindred purposes. The term "essential oil" as used herein is intended to comprehend any perfume or odoriferous substance suitable for the uses suggested.

I claim:

1. The method of producing a water soluble oleaginous product consisting in combining an essential oil with a quantity of sulphonated fatty oil at least partially neutralized with an alkali, and clearing up the liquid with an anhydrous salt.

2. The method of producing a water soluble oleaginous product consisting of making a solution of an essential oil in a sulphonated fatty oil at least partially neutralized with an alkali, clearing up the solution with an alkali salt, removing the alkali salt after settling, and adding more essential oil.

3. The method of producing a water soluble oleaginous product consisting in combining an essential oil with a relatively small quantity of Turkey-red oil, and clearing the solution with an alkali salt.

4. The product comprising a solution of essential oil in a lesser quantity of sulphonated fatty oil, cleared with an alkali salt and forming a substantially permanent clear liquid miscible with aqueous addition without separation.

In witness whereof I hereunto subscribe my signature.

Dr. FRIEDRICH BRAUNLICH.