

UNITED STATES PATENT OFFICE.

ELMER SCHEUER, OF CLEVELAND, OHIO.

INSECTICIDE AND GERMICIDE.

1,184,879.

Specification of Letters Patent.

Patented May 30, 1916.

No Drawing.

Application filed November 13, 1912. Serial No. 731,073.

To all whom it may concern:

Be it known that I, ELMER SCHEUER, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Insecticide and Germicide, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present invention relates to a composition of matter designed for use as an insecticide and germicide, as well as for a solvent for certain substances.

It has been a matter of considerable difficulty to provide a suitable insecticide which will not be so volatile and explosive but that it can be used economically and safely by the average user. The present composition has been designed with a view to remedying this difficulty, although the efficiency of the action is in nowise diminished.

To the accomplishment of these and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The following description sets forth in detail one mode of carrying out the invention, such disclosed mode illustrating, however, but one of various ways in which the principle of the invention may be used.

It is essential in such a composition to have at least one compound which possesses, and retains after mixing, germicidal and insecticidal properties. In my improved compound I preferably use a base which is a well known germicide and add to such base other substances which do not decrease the efficiency as a germicide while lessening the disagreeable and dangerous features.

The present composition consists primarily of carbon disulfid which I preferably mix in varying proportions with a halogenated hydrocarbon or other non-inflammable compound. The carbon disulfid is, of course, well known for its insecticidal properties, but heretofore it has been impossible to efficiently use the same for this purpose by reason of the rapid evaporation of the liquid. By adding a suitable amount

of some non-inflammable compound, such, for example, as chloroform or di-chlor-ethylene, the latter compound being preferably mixed with any desired amount of carbon tetrachlorid or per-chlor-ethylene, the evaporation of the mixture can be reduced to a considerable extent. Furthermore, the use of chloroform or any other compounds mentioned does not in any way detract from the efficiency of the carbon disulfid, but rather increases the same, as chloroform, di-chlor-ethylene, carbon tetrachlorid and per-chlor-ethylene, are in themselves insecticides and germicides to some extent. The addition of a small portion of the substance named, or of any of the other substances named, not only decreases the evaporation of the carbon disulfid, but also reduces the explosiveness and lessens the danger from using the same. The ordinary users of insecticides and germicides are not familiar with the dangerous and explosive nature of this chemical, and it is therefore of prime importance to render the use of the same as simple and as harmless as possible. The present composition attains this object while in no way decreasing the efficiency of the carbon disulfid for the purpose used.

If chloroform only is added to the carbon tetrachlorid, the preferred proportions will be two parts of carbon disulfid to two parts chloroform. If di-chlor-ethylene is added together with either carbon tetrachlorid or per-chlor-ethylene, the preferred proportions will be two parts of carbon disulfid and two parts of di-chlor-ethylene, which latter ingredient is mixed with an equal part of carbon tetrachlorid or per-chlor-ethylene, the mixture of the di-chlor-ethylene and either the carbon tetrachlorid or the per-chlor-ethylene being substantially equal to the amount of carbon disulfid used. Other proportions may be used, if desired, so long as the effect of neutralizing to some extent the explosive nature of the carbon disulfid is secured.

Other substances may be used replacing those here named, provided they accomplish the same purpose in the composition and do not materially alter the properties of the same.

I claim—

1. A composition of matter including carbon disulfid, and a halogenated hydrocarbon having a boiling point substantially the same as the carbon disulfid.
2. A composition of matter, including carbon disulfid and chloroform.
3. A composition of matter, including carbon disulfid and chloroform in substantially equal amounts.

Signed by me, this 11th day of November, 1912.

ELMER SCHEUER.

Attested by—
HORACE B. GAY,
ANNA L. GILL.