

UNITED STATES PATENT OFFICE.

SIGMUND NEUMANN, OF BUDA-PESTH, AUSTRIA-HUNGARY.

FLUORESCENT SOAP.

SPECIFICATION forming part of Letters Patent No. 564,835, dated July 28, 1896.

Application filed September 14, 1894. Serial No. 523,030. (No specimens.) Patented in Hungary August 16, 1894, No. 1,401; in Austria August 22, 1894, No. 45/2,348; in Belgium August 22, 1894, No. 111,511; in England August 23, 1894, No. 16,040, and in France September 4, 1894, No. 241,112.

To all whom it may concern:

Be it known that I, SIGMUND NEUMANN, of Gottergasse, Buda-Pesth, in the Kingdom of Hungary and Austro-Hungarian Empire, have invented new and useful Improvements in or Connected with the Manufacture of Fluorescent Soaps, (for which I have obtained the following foreign patents: Austria, No. 45/2,348, dated August 22, 1894; England, No. 16,040, dated August 23, 1894; France, No. 241,112, dated September 4, 1894; Belgium, No. 111,511, dated August 22, 1894, and Hungary, No. 1,401, dated August 16, 1894,) of which the following is a specification.

This invention relates to the production of fluorescent soaps, whether colored or not.

Ordinary opaque or non-translucent soap is capable of taking up, during its manufacture, fluorescent bodies; but such soaps do not exhibit in their finished state the characteristics of fluorescence.

Instead of employing ordinary non-transparent or non-translucent soap for the purpose of my invention, I take transparent soap during the fluid state of its manufacture, and in this state I add thereto any suitable body which in itself or in its solution is fluorescent and which does not lose its fluorescence in the finished soap. I may also add to the fluid soap such colors soluble therein as may be desired to produce a given tint or shade. If a solid transparent soap is to be used, the soap may be liquefied by cutting the soap to small pieces and dissolving them in alcohol at a temperature of from 70° to 90° centigrade. If the alcohol contains a large quantity of water, the excess of water in the solution of soap may be evaporated.

The fluorescent bodies which I may employ by addition to the fluid transparent soap for producing the fluorescence are, for example, fluorescein derivative, eosin, phloxin, erythrosin, saffranin, esculin, rhodamin, azoresorcin, azoresorufin, and their derivatives. The fluorescent body is mixed with the fluid soap either in the dry state or in solution by effective stirring. The soap may then be finished in the usual manner.

If it be desired to impart to the soap a different color to that which may be given to it

by the fluorescent body, the required coloring-matter may be added to it after the mixture therewith of the fluorescent body.

I have found that when using fluorescein or its derivatives for the purpose of this invention the fluorescent effect may be increased by the addition of ammonia or ammonia compounds, and I may accordingly employ these substances in such cases.

As a rule, from one to two milligrams of the fluorescent body and of the ammoniacal ingredient are mixed with one kilogram of the fluid soap. The quantity, however, may be altered according to the nature of the soap, the fluorescent, and the ammoniacal ingredient. All ammonia compounds which are soluble in water, and which with the addition of caustic alkali produce ammonia, may be employed, especially sal-ammoniac, sulfate of ammonia, and carbonate of ammonia. The fluorescent body, the ammoniacal ingredient, and the coloring-matter can be added to the fluid soap in any desired order.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A new composition of matter consisting of transparent soap and organic bodies which are fluorescent in a neutral or alkaline solution, substantially as described.

2. As a new article of manufacture, a fluorescent soap, consisting of transparent soap, ammonia compounds, and organic bodies which are fluorescent in a neutral or alkaline solution, substantially as described.

3. The method of making fluorescent soap, consisting in adding to fluid transparent soap organic bodies which are fluorescent in a neutral or alkaline solution, substantially as described.

4. The method of making fluorescent soap, consisting in adding to fluid transparent soap organic bodies which are fluorescent in a neutral or alkaline solution, and also ammonia or its compounds; substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

SIGMUND NEUMANN.

Witnesses:

HANS BAUERLEIN,
MAXIMILIAN MINX.