

# UNITED STATES PATENT OFFICE.

EUGEN GROSSMANN, OF BASLE, SWITZERLAND, ASSIGNOR TO JOHN R. GEIGY & CO., OF SAME PLACE.

## NAPHTHOL PREPARED WITH ROSIN SOAP.

SPECIFICATION forming part of Letters Patent No. 657,767, dated September 11, 1900.

Application filed January 12, 1900. Serial No. 1,182. (No specimens.)

*To all whom it may concern:*

Be it known that I, EUGEN GROSSMANN, a citizen of the Swiss Republic, residing at Basle, Switzerland, have invented a certain new and useful Process of Producing Bottoms on Cotton, (for which patents have been applied for in Germany, G. 14,085, IV/8<sup>b</sup>, dated December 20, 1899; in England, dated December 28, 1899; in France, dated December 29, 1899; in Spain, dated February 10, 1900; in Italy, dated January 25, 1900, and in Austria, dated January 17, 1900,) of which the following is a specification.

As is known, in the production of most of the azo colors on cotton fiber the addition of a mordant—as, for instance, Turkish-red oil, castor-oil soap, olive-oil soap, tragacanth, gelatine, or gum of various kinds—is necessary to obtain a bottom of a fine shade and satisfactory fastness. I have now found, however, that as fast and even finer shades may be obtained when the product of caustic-soda lye upon colophony, which consists mostly of abietinic acid, is added to the bottoms of phenol, naphthols, or their derivatives. This product has also the great advantage of being much cheaper than the other mordants hitherto employed.

The process may be carried out, for example, as follows: Twenty-two kilograms of betanaphthol are dissolved in hot water, to which have been added sixteen liters of caus-

tic-soda lye of 40° Baumé. To this solution are added seventy liters of the sodium salt of abietinic acid, containing about fifteen per cent. of colophony, and the whole diluted up to one thousand liters. The fiber is impregnated with this solution in the well-known manner and then dried and dyed in the solution of a diazo color or printed with a diazo color—as, for instance, the diazo compounds of paranitranilin, naphthylamin, safranin, &c. The fiber may as well be mordanted first with the sodium salt of the abietinic acid and afterward with the naphthol.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The herein-described process of producing bottoms for azo colors on cotton fiber, which consists in impregnating the fiber with a solution containing a phenol, and a mordant obtained by heating colophony with caustic-soda lye and consisting for the most part of the sodium salt of abietinic acid, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

E. GROSSMANN.

Witnesses:

GEORGE GIFFORD,  
JOHN G. PLATNER.