

UNITED STATES PATENT OFFICE.

FRITZ HOFMANN AND KURT MEISENBURG, OF ELBERFELD, GERMANY, ASSIGNORS TO
FARBENFABRIKEN VORM. FRIEDR. BAYER & CO., OF ELBERFELD, GERMANY, A
CORPORATION OF GERMANY.

PROCESS OF PRODUCING BETA-GAMMA-DIMETHYLERYTHRENE.

1,002,400.

Specification of Letters Patent.

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No Drawing.

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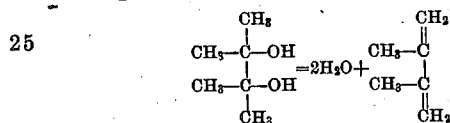
To all whom it may concern:

Be it known that we, FRITZ HOFMANN and KURT MEISENBURG, doctors of philosophy, chemists, citizens of the German Empire, residing at Elberfeld, Germany, have invented new and useful Improvements in New Processes for Producing Beta-Gamma-Dimethylerythrene, of which the following is a specification.

The process hitherto known for the production of beta-gamma-dimethylerythrene is to treat pinacone with dilute sulfuric acid, acetic anhydrid, tartaric acid or phosphoric acid. The chief product of the reaction however is pinacolin and beta-gamma-dimethylerythrene is only formed in traces.

We have discovered a new process which results in an excellent yield of beta-gamma-dimethylerythrene and which consists in distilling pinacone with an acid salt of sulfuric acid.

The process proceeds according to the following equation:



In order to illustrate the new process more fully the following example is given, the parts being by weight:—500 parts of pinacone are mixed with 750 parts of bisulfate of potassium KHSO_4 and the resulting mixture is heated to 140–150° C. Dimethylerythrene and water distil over

besides pinacone hydrate and small quantities of pinacolin. The distillate consists of two layers. The upper layer is separated, dried over calcium chlorid and submitted to fractional distillation. The fraction boiling from 67 to 97° C. is for further purification distilled once more over metallic sodium. The beta-gamma-dimethylerythrene boils at 68–69° C. The quantities of bisulfate of potassium may be varied and other acid salts may be used, e. g. sodium bisulfate, sodium or potassium pyrosulfate.

We claim:—

1. Process for producing beta-gamma-dimethylerythrene, which process consists in first distilling pinacone with an acid salt of sulfuric acid and then separating the beta-gamma-dimethylerythrene from the distillate, substantially as described.

2. Process for producing beta-gamma-dimethylerythrene, which process consists in first distilling pinacone with bisulfate of potassium and then separating the beta-gamma-dimethylerythrene from the distillate, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

FRITZ HOFMANN. [L. S.]
KURT MEISENBURG. [L. S.]

Witnesses:

CHAS. J. WRIGHT,
WALTER VONNEGUT.