UNITED STATES PATENT OFFICE.

JARIG PHILIPPUS VAN DER PLOEG, OF AMSTERDAM, NETHERLANDS.

PROCESS FOR THE MANUFACTURE OF EMULSIONS.

No. 884,878. Specification of Letters Patent. Patented April 14, 1908.

Application filed April 27, 1905. Serial No. 257,672.

To all whom it may concern:

Be it known that I, JARIG PHILIPPUS VAN DER PLOEG, a subject of the Queen of the Netherlands, residing at 194 Heerengracht, Amsterdam, Kingdom of the Netherlands, have invented a certain new and useful Process for the Manufacture of Emulsions of Heavy Mineral Oils or the Like, of which the following is a specification.

This invention relates to a manufacture of emulsions of heavy mineral oils, petroleum residues, crude petroleum, or the like.

Lately, emulsions of oils, liquid fats, tar soap solutions and the like, have been used for binding dust and preventing the raising of dust on roads, race courses, permanent ways, covered spaces, floors, corridors, in short wherever dust is inconvenient to the public. This use is based on the fact that emulsions bind the dust for a longer period than water does, the latter being soon evaporated by the heat of the sun or the wind.

For the purpose of making the emulsions are best suited, on account of their cheapness, the heavy mineral oils, petroleum residues, or crude petroleum, which are made soluble in or emulsifiable with water by addition of alkali soaps made from resins, oils or fats and alkalies.

By the present invention, alkaloids, chinolin and pyridin bases are used for emulsifying heavy mineral oils with water.

It has been found that the heavy hydrocarbons in question, which generally have a neutral reaction towards both acids and alkalies, are affected by these alkaloids in such a manner that they can be emulsified with water without being heated, if a little ammonia is added to induce a feeble alkaline reaction.

In proceeding according to my invention I add to the hydrocarbon oil, alkaloids, pyridin, piccolin, or chinolin bases for example of one-tenth percent., (1 to 1000) of such bases for the quantity of hydrocarbon; I then add an alkaline substance such as ammonia in a properly diluted condition to maintain the alkaline re-action in the mixture. The mixtures are made at the proper usual temperature without making use of special mixing means and the emulsions thereafter are ready for use.

In addition to their application for binding and laying dust, the emulsions made according to this invention are well suited for mechanical purposes, namely as lubricants for parts of machinery running at high speed or for boring, countersinking or the like. The surfaces of walls, masonry or the like may be made waterproof by aid of these emulsions.

Having thus described the nature of my said invention and the best means I know of carrying the same into practical effect, I claim:

1. A process of manufacturing emulsions of heavy hydrocarbons and the like which consists in mixing the oil with an alkaloidal substance and then adding a diluted alkaline substance to maintain the alkaline re-action in the mixture.

2. A process of manufacturing emulsions of heavy hydrocarbons and the like which consists in mixing the oil with an alkaloidal substance and then adding diluted ammonia to maintain the alkaline re-action in the mixture.

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

JARIG PHILIPPUS VAN DER PLOEG.

Witnesses:

THOMAS HERMANUS VERHAVE,

AUGUST SIEGFRIED DOCEN.