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# UNITED STATES PATENT OFFICE.

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## ART OF REFINING OIL.

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This invention relates to the separation of petrolatum or so-called "amorphous wax" from steam-reduced crude oils, cylinder stocks or similar vehicles containing petrolatum. Such steam-refined crude oils or cylinder stocks are prepared by the fire and steam distillation of crude oils, for example, to a 15 to 25% bottom and, when prepared from mid-continent crude, ordinarily have a gravity of about 20 to 22° Baumé and a flash point of about 515 to 530° F. It will be readily apparent that the specific gravity and flash points of the stocks are not material to the practice of the present invention.

I have found that an effective separation of the petrolatum from such stocks may be effected by diluting the stock with a suitable proportion of an oil solvent in which petrolatum is materially less soluble than in naphtha, chilling the mixture to a suitable temperature and separating the wax by settling or by difference in specific gravity. For example, I may admix with a suitable steam-refined oil or cylinder stock from 25 to 75% of methylethylketone (butanone) and chill the resulting mixture by suitable refrigerating means to a temperature suitable for the production of an oil having the cold test desired for the end product of the process. Upon standing, the petrolatum present separates out and may be readily removed. The diluted oil may then be subjected to distillation, preferably with steam, for removal of the methylethylketone present, which may be recovered and reused.

I have found that when butanone or methylethylketone is employed as a diluent in the manner described for removing wax from steam-refined oils, at a given chilling temperature, a better separation of wax and a lower cold test, petrolatum-free oil is obtained than when naphtha is employed. I prefer to use methylethylketone which has not been perfectly dehydrated, as the presence of small amounts of water, say up to 3%, further decreases the solubility of the petrolatum therein.

I claim:

1. The method of separating petrolatum from steam-refined stocks which comprises diluting the stock with methylethylketone, chilling the diluted stock, and separating the petrolatum by difference of specific gravity.

2. The method of separating petrolatum from steam refined stocks which comprises diluting the stock with methylethylketone containing water not exceeding about 3%, chilling the diluted stock and permitting the petrolatum to settle out by difference of specific gravity.

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