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A Simple Automatic Mercury Pump Which Permits the Collection of the Exhaust Gas

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The present work undertakes to compare the activity of 2:nitro:4-chlor phenol and 2:4-dinitro phenol. The methyl and ethyl ethers have been prepared, the ethers from the first being formed in lower yield than from the second. The benzyl ethers were obtained in fair yield from the corresponding potassium salts. The phenyl and allyl ethers of 2:4-dinitro phenol have been prepared and the corresponding derivatives of 2:nitro: 4-chlor phenol will be attempted later. Aluminium amalgam gave a 51% yield of 2:amino: 4-chlor-methoxy benzene together with a small amount of the azoxy derivative. The methyl, ethyl, and phenyl ethers of 2:4-dinitro phenol have been reduced with ammoniacal hydrogen sulphide and the benzoyl derivatives prepared.

THE BLEACHING OF SOY BEAN OIL WITH PEAT

H. V. WRIGHT AND G. A. PEIRCE

The color in soy bean oil is removed by four or five treatments at 120°C with 10% - 20% of its weight of north Iowa peat or peat ash. The removal of the color is accomplished with fewer treatments by first mixing the oil with an equal volume of solvent naphtha which is distilled off after the bleaching treatment. Exposure of the oil to strong sunlight, or better to ultra-violet rays, assists in removing the last traces of color.

A SIMPLE AUTOMATIC MERCURY PUMP WHICH PERMITS THE COLLECTION OF THE EXHAUST GAS

H. M. McLAUGHLIN AND F. E. BROWN

ABSTRACT

The Toepfer pump has been modified so that it operates continuously and automatically, maintains a high vacuum, guards completely against the inclusion of air in the exhaust gas, and is easily made by the ordinary chemical experimenter. A water pump at M (Fig. 1) lowers the mercury in E, F and at the same time draws mercury into K through N. Mercury is raised in E, F by atmospheric pressure through N as soon as the surface of the mercury in U is below the lower end of the tube N. Gas from the apparatus is forced out through F, G into a collection apparatus W. The system P, Q, R, S, T is used only in starting the pump.

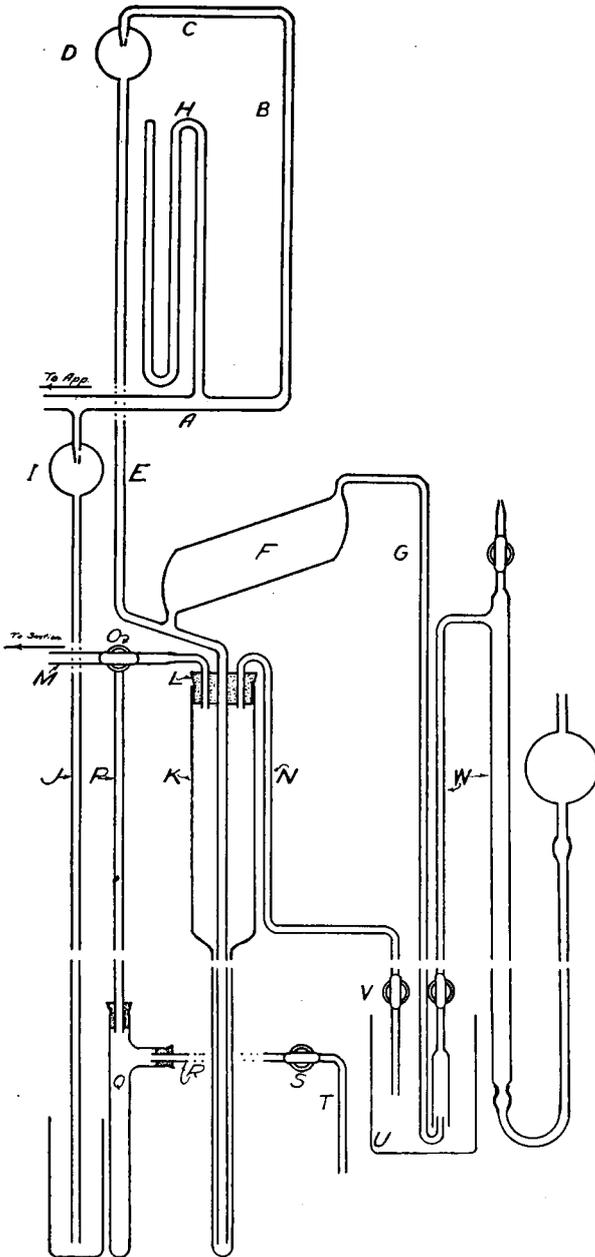


Fig. 1.