

## THE PREPARATION OF METHYL ACETYLENE.\*

BY M. W. TAPLEY AND P. M. GIESY.

The best method given in the literature for the preparation of acetylene and its homologues appears to be the conversion of the alkyl dibromides into the corresponding members of the acetylene series by the action of alcoholic potassium hydroxide. No reference was found giving the preparation of methyl acetylene by this method. The preparation of the higher homologues in this way required heating under pressure to remove the second molecule of hydrogen bromide. It was thought, however, that since methyl acetylene was a gas it ought to be possible to prepare it from propylene dibromide by heating the latter with alcoholic potassium hydroxide without having to resort to high pressures.

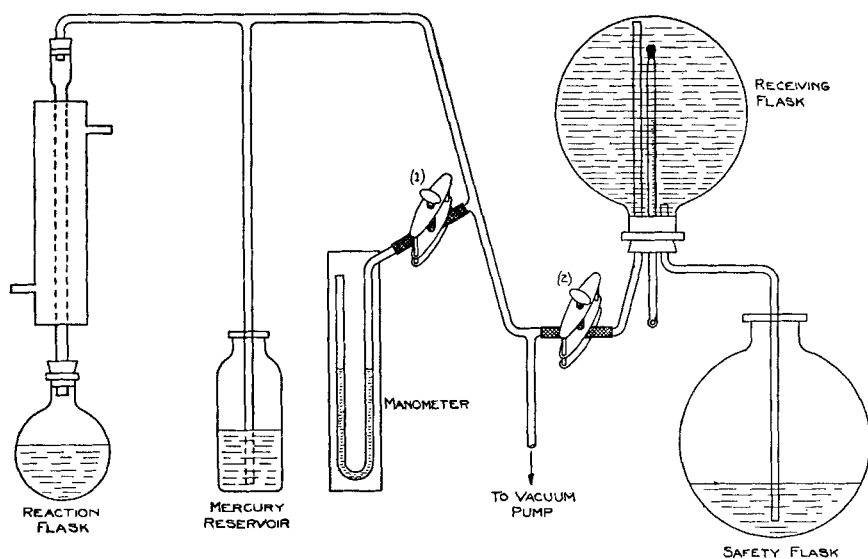


Fig. 1.

To increase the reaction temperature the potassium hydroxide was dissolved in *n*-butyl alcohol instead of ethyl alcohol as is ordinarily done. Figure 1 is a diagram of the apparatus used, which provides for a yield determination as well as for the collection of pure material for analysis and further use.

In making a run the receiving flask and tubes are filled with water, the screw clamp (2) is closed, and the tube leading to the safety flask immersed in water in the latter flask. Twenty grams of propylene dibromide in the reaction flask is then treated with an excess (25 grams) of potassium hydroxide dissolved in the minimum amount of butyl alcohol. The apparatus is then gradually evacuated and when the mercury in the manometer is pulled up to the screw clamp (1), the latter is closed. The mercury in the reservoir rises in the safety tube and finally reaches a height of about 71 cm. At this stage the reaction mixture is in a state of slow ebullition. When the alcohol vapor has displaced all air from the apparatus,

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the line to the vacuum pump is closed and the reaction flask gently heated. As pressure is built up, the mercury in the tube is forced back into the reservoir. When the pressure has risen to that of the atmosphere the manometer screw clamp (1) is opened, then clamp (2), next to the receiving flask, and collection begins. The volume of gas formed is calculated from the increase of weight of the safety flask, the volume of the evacuated apparatus, and the pressure within this. This method of preparation gives a 67% yield of methyl acetylene of practically 100% purity. For every 10 grams of propylene dibromide used approximately 800 cc. of methyl acetylene is produced.

As methyl acetylene is quite soluble in water a saturated salt solution is recommended for the confining liquid.

LABORATORIES, E. R. SQUIBB & SONS,  
BROOKLYN, N. Y.

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### WHAT SHOULD A PHARMACIST "BE"??\*

BY IVOR GRIFFITH.

The group working under Dr. Charter's able management is carefully and correctly working out its answer to the question—"What should a Pharmacist know?" Into this great statistical compilation has gone years of search and research. More is yet to come.

But I want to point out that beyond—far beyond this question, in essence and in importance, is the much larger question of the sense of personal responsibility of the Pharmacist.

What should the Pharmacist know? Yes, but also "What should the Pharmacist be?"

I will not attempt in the hasty presentation to discuss this question, but I should like to draw for you a picture, and ask you for the while to forget your own impressions and simply see the picture.

And it is no idealized picture, no phantasy, no retouched freak, but taken truly, clearly and without distortion out of realities of Life's everyday.

It is given in a personal way since it is, without bias or exaggeration, the spreading out in prose of a very personal experience. Listen and think.

"Illness had paid me a visit—a most serious, painful visit, and I was carried for my first experience, to the great brick building housing the community hospital. Too sick for expression, too weak for protest, lost to everything except the stubborn, innermost hope that with God's grace health would come back again, I was moved silently through the halls of the house of mercy into the segregated chambers of the serious or hopeless cases. And I knew my destination, for the hospital to me was an open book. I had served long as its pharmacist, compounding its medicines, teaching its nurses and cooperating with its medical staff in many substantial ways.

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\* Presented before Section on Practical Pharmacy and Dispensing, A. Ph. A., Des Moines meeting, 1925.

EDITOR'S NOTE: This is an interesting presentation of what a pharmacist should "be," and impresses the responsibilities of pharmacists. It is a message that may well be impressed on students and pharmacists.