

cine and pharmacy testifies that success and progress have been achieved through coöperation. A deduction can be made that the votaries may work together for the common good, but each class is best qualified to render service in the department for which the individuals have been trained by experience and education; the success of one is dependent on the advancement of the other.

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#### AMMONIUM SALT OF ACETYL SALICYLIC ACID.

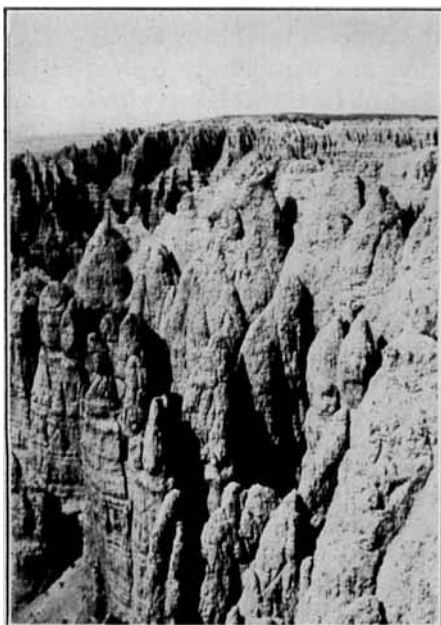
BY M. N. DVORNIKOFF.

A recent publication by N. E. Woldman (*JOUR. A. PH. A.*, XVIII (Jan. 1929), 14) describes a method of making the ammonium salt of acetyl salicylic acid.

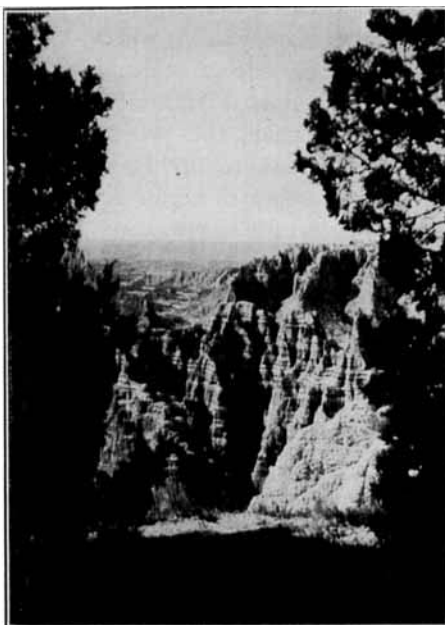
Following Woldman's procedure, 1 mol. of aspirin was dissolved in 1 mol. of 9.5%  $\text{NH}_3$  solution at 60° C. (It is assumed that a typographical error occurred on page 16, where percentage of concentrated ammonium hydroxide is given as 94% and that it should read 24%.) On cooling the solution a white crystalline product was obtained. This was not, however, the ammonium salt of acetyl salicylic acid as claimed by Woldman but proved to be the free aspirin contaminated to a small extent with ammonium salts.

Aspirin is soluble in ammonium hydroxide solution and is hydrolyzed by the excess of ammonia under formation of ammonium salicylate and ammonium acetate (or, perhaps, acetamide). The hydrolysis takes place very readily, and by the addition of aspirin to a solution of ammonium hydroxide the consumption of ammonia approaches the ratio 2 mols. of  $\text{NH}_3$  per 1 mol. of aspirin. When all the  $\text{NH}_3$  is neutralized and more aspirin is added to a warmed solution, the aspirin simply goes into the solution and separates out unchanged on cooling.

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