

and mixtures becomes converted into ammonium sulphate on heating with strong sulphuric acid. The ammonia is set free by strong alkali, distilled into excess of decinormal acid and the acid not neutralised determined by titration.

1. *Digestion*.—Measure exactly 10 c.c. of urine in Kjeldahl flask, about 10 c.c. sulphuric acid and 5 grms. dry potas. sulphate, heated until decolourised in draught cupboard, and heat continued for half an hour. Cover with paper cap until next period.

2. *Distillation*.—Add rapidly 300 c.c. distilled water to colourless liquid; add a drop or two of indicator and some pieces of porous earthenware to prevent bumping; add slowly 40 c.c. strong sodium hydrate to make strongly alkaline. Connect with distilling apparatus at once. This apparatus with receiver containing 100 c.c. of decinormal sulphuric acid should be ready. Distil for about 45 minutes. Disconnect receiver and test a drop of distillate with red litmus or turmeric paper; connect again quickly if distillate is still alkaline.

Titrate distillate with decinormal sodium hydrate, using alizarin as indicator, and calculate nitrogen in 1500 c.c. of urine; 1 c.c. decinormal sulphuric acid = 0.0014 nitrogen.

Determine the total nitrogen in sample A in duplicate as part of the partition of nitrogen.

II. *Ammonia*.—1. *Formaldehyde method*.—See Biological Synopses, XVII. 5, and Physiological Urine, Part II.