It is therefore not necessary to assume the local formation of antibodies in order to account for the active sensitization of pulmonary tissues.

102 (1280)

The rôle of hepatic tissue in anaphylaxis.

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If 0.25 per cent. goat serum in 50 per cent. defibrinated normal blood is repeatedly perfused through the liver of a normal guinea pig, a slight reduction in the toxicity of the perfusion fluid is usually observed, on subsequent tests with isolated anaphylactic lungs. In no case, however, is the reduction in toxicity sufficient to prevent the anaphylactic reaction in these lungs.

If the liver of an anaphylactic guinea pig is similarly perfused, the perfusion fluid usually becomes almost completely non-toxic for anaphylactic lungs.

This reduction in toxicity is not accompanied by a measurable decrease in the amount of goat protein in the perfusion fluid, as determined by a subsequent titration with a specific precipitin.

103 (1281)

The food value of soy bean products.

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Soy beans fed as the sole source of protein, or as a supplement to corn gluten, are suitable for the nutrition of rats. They contain sufficient water-soluble vitamine to promote normal growth; for diets containing soy bean flour, butter fat, starch, and an artificial salt mixture have promoted growth as well as comparable rations containing natural protein-free milk. The pres-

ence or absence of the fat-soluble vitamine has not yet been ascertained. The mineral constituents of the soy bean are inadequate for growth. Whether the deficiency is a qualitative or quantitative one remains to be determined. Rats eat foods containing commercial soy bean flour more readily than those containing meal made by grinding the entire seed. The latter is non-toxic; for the few animals which have eaten enough have grown well. Preliminary experiments indicate that the heating to which the commercial soy bean flour is subjected may be the cause of the superiority of the latter. Unlike cotton seed, soy beans extracted with ether are not improved in nutritive value. Unheated soy bean meal and corn gluten has proved satisfactory as the sole source of protein in the diets of chickens. We are continuing our investigation of the nutritive value of this seed.

104 (1282)

The determination of hemoglobin.

By WALTER W. PALMER (by invitation).

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The method for the determination of hemoglobin described below has proved accurate and convenient. 0.1 c.c. of blood is introduced into a 10 c.c. volumetric flask half filled with 0.4 per cent. ammonia water (4 c.c. strong ammonia in 1 liter of water) and filled to the mark with the ammonia solution. The contents are poured into a large test tube (25×200 mm.) and illuminating gas bubbled at a rapid rate through the hemoglobin solution for at least 30 seconds. The resulting carbon monoxide hemoglobin is then compared with a standard solution in a colorimeter (Duboscq).

The standard is a 1 per cent. solution of defibrinated ox or human blood having an oxygen capacity of 18.5 per cent. which has been thoroughly saturated with carbon monoxide. The oxygen capacity may conveniently be determinated by the method described by Van Slyke in the PROCEEDINGS of this Society, 1917, XIV, 84. It has been found convenient to prepare a 10 or 20