acid into the stomach, by adsorbing total and free acid.[2,11,13]

The increase in inorganic acids of the blood is perhaps more important than the retention of nitrogenous products particularly insofar as acid-base balance is concerned. Denis[14] has demonstrated an increase of the blood sulphate level in patients with chronic nephritis and Macy[15] has shown an impaired clearance of sulphates in this disease. The present study shows that sulphate retention is appreciable in the nephrectomized rat.

No significant changes either in phosphates or serum calcium levels were noted in the nephrectomized rat. In the presence of prolonged acidosis and proteinuria (calcium adsorbed to protein) such as is found in chronic nephritics one might expect changes in serum calcium; in this study the element of time was too short and the factor of proteinuria absent.

Conclusions. 1. The longevity of the bilateral nephrectomized rat was 3 to 4 days. 2. The oral administration of aluminum hydroxide increased the survival time of 20% of nephrectomized rats to 5 or 6 days. 3. Bilateral nephrectomy resulted in a marked elevation of urea nitrogen and inorganic sulphate in the blood whereas the retention of inorganic phosphate, calcium and cholesterol was insignificant. 4. The oral administration of aluminum hydroxide in the bilateral nephrectomized rat produced a slight decrease in the degree of retention of each of the various blood constituents studied.

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Reproduction in Chickens on Synthetic B-Complex Supplement.

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Reproduction in rats on a diet containing the B-factors in synthetic form was previously reported.[1] However, it was not possible to rear chickens on a diet of this type until synthetic pteroylglutamic acid became available.[2] Day-old New Hampshire chicks were placed on the following diet: glucose (cerelose) 58.5 g, purified casein (Labco) 20 g, gelatin 8 g, calcium gluconate 5 g, cystine 0.4 g, choline chloride 0.2 g, inositol 0.1 g, bone ash 2 g, NaCl 0.6 g, KH_2PO_4 0.45 g, K_2HPO_4 0.6 g, $MgSO_4$ 0.25 g, $MnSO_4,4H_2O$ 0.05 g, ferric citrate 0.05 g, $CuSO_4,5H_2O$ 2 mg, $Al_2(SO_4)_3,18H_2O$ 1.6 mg, zinc acetate 1.4 mg, KI 0.6 mg, cobalt chloride 0.4 mg, nickel chloride 0.2 mg, calcium pantothenate 5 mg, niacinamide 5 mg, riboflavin 1 mg, pyridoxine HCl 1 mg, thiamine HCl 1 mg, *p*-aminobenzoic acid 1 mg, pteroylglutamic acid 0.5 mg, 1-acetoxy-2-methyl-4-naphthyl sodium phosphate 0.5 mg, (dl) biotin .04 mg, to which were added vitamin A 1500 U.S.P. units, vitamin D 200 A.O.A.C. units, mixed tocopherols 34 mg, dissolved in corn oil (Mazola) to a total of 3 g. The birds were kept in metal cages with wire floors. In this diet, the fat-soluble factors were fed in a crude form but the water-soluble vitamins, except inositol, were all synthetic and were fed at levels which appeared to be more than sufficient in each

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[2] Angier, R. B., Boothe, J. H., Hutchings, B. L., Mowat, J. H., Semb, J., Stokstad, E. L. R., Subba-Row, Y., Waller, C. W., Cosulich, D. B., Fahrenbach, M. J., Hultquist, M. E., Kuh, E., Northey, E. H., Seeger, D. R., Sickels, J. P., and Smith, J. M., Jr., *Science*, 1946, **103**, 667.

case, as judged by previous experiments and by results reported by other laboratories. Para-aminobenzoic acid is not known to be needed by chicks, but was fed as a precautionary measure. The calculated essential amino-acid content[3] of the diet satisfied the requirements of the chick for growth as described by Almquist and coworkers.[4] The chicks had an average weight of 1206 g at 10 weeks, and the group consisted of 2 males and 5 females. The chicks appeared normal in size, conformation and plumage. One of the males was observed to attempt copulation at 110 days of age. After the 155th day, 3 females and one male were kept in one group, and 2 females and one male in the other group. The males were rotated every 3rd day. Three of the females matured between the 151st and the 161st days of age, and the eggs were collected and incubated. On the 172nd day, an additional 1% of $CaCO_3$ was added to the diet to promote egg-shell formation. At 181 days of age the females averaged 2.26 kg in weight and the males 3.07 kg. The following record was obtained with the eggs:

Hen No.	1	2	3
No. of days	14	16	5
No. of eggs laid	8	9	4
No. of eggs incubated	6	4	3
Infertile	1	1	0
Dead embryo, estimated 1 to 7 days development	1	1	2
Dead embryo, estimated 17 to 21 days development	2	1	1
Live chicks hatched	2	1	0

The chicks appeared normal although they were small. They were placed on the same diet as their parents, without additional $CaCO_3$. They weighed an average of 28 g at hatching, and their average gain during the first month was 189 g.

Summary. Reproduction was obtained in chickens which were raised from hatching on a purified diet. The hatchability of the eggs was poor, but some apparently normal chicks were obtained.

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Antihistamine and Antianaphylactic Effect of Hetramine, a New Synthetic Pyrimidine Compound.

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There has been increasing evidence in recent years which indicates that some of the symptoms of anaphylactic shock and other hypersensitivities are due to the liberation of histamine during an antigen antibody reaction.[1-3] For this reason much investigation has been directed toward the discovery of a substance that can counteract the effects of histamine *in vivo*.[4-8] There has been additional evidence recently that substances having antihistamine properties can do much to

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[3] Code, C. F., *Ann. Allergy*, 1944, **2**, 457.

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[5] Staub, A. M., and Bovet, D., *ibid.*, 1937, **125**, 818.

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