of the labyrinth, as compared with the deportment of cats or dogs after loss of one labyrinth.

Two cats were subjected to experimental ablation of the vermis and left lateral lobe of the cerebellum. The eye movements were different from those following labyrinthine lesions. One marked motor defect was the trembling and uncertainty of movement of the head when attempting to take food. Two different stages in recovery from the effects of the cerebellar lesion were shown, in one of the cats, with the gradual amelioration of the symptoms in the second stage taken at an interval of about one month after the first.

The film of the rabbit was made through the courtesy of Pathe Freres. The films of the cats were paid for out of the Patton Fund of Northwestern University Medical School.

69 (1133).

A separation of serum into coagulative and non-coagulative fractions.

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As is well known, it is possible, by means of salting out with appropriate percentages of ammonium sulphate or sodium chloride, to almost entirely separate the albumin from the globulin and the pseudo-globulin of serum. This has been done in the preparation of diphtheria antitoxin, where it has been found that the antitoxin is closely associated with the pseudo-globulin fraction.

A similar procedure was carried out to determine the association of the coagulative principles of the serum. It was found that in human plasma as well as in horse plasma, these substances are linked with the euglobulin fraction. If these three proteid fractions of the serum are separated and dissolved in normal salt solution and added to plasma (with the addition of a small amount of calcium) the euglobulin will markedly hasten coagulation, whereas the two other fractions will have either no effect or a slightly inhibitory action. It is possible in this way to prepare a

refined serum containing only ½ to 1 per cent. proteid, that is to say, one tenth to one fifth the quantity present in normal serum, but possessing an equal potency as regards coagulation. This preparation may be passed through a Berkefeld filter so as to be rendered sterile.

This euglobulin would seem to be of value for subcutaneous or intravenous use in hemorrhage, particularly on account of its small quantity of proteid.

70 (1134)

Comparative distribution of urea, creatinine, creatine, uric acid, and sugar in blood and spinal fluid.

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Comparative analyses of blood and spinal fluid were carried out in 15 cases. These patients were suffering from nephritis of various stages of severity, and gave chemical blood pictures varying from practically normal to the excessive retention of uremia. The concentration of urea in the spinal fluid averaged 88 per cent. of that in the blood; the concentration of creatinine, 46 per cent.; of creatine, 22 per cent.; and of uric acid, 5 per cent. of the respective concentrations in the blood. If these differences in concentrations may be regarded as representing the relative permeability of the cells separating the blood and spinal fluid, one notes that the extent of passage into the spinal fluid is greatest for urea, less for creatinine, still less for creatine and least for uric acid. It is of interest to note that this represents also the order of their solubility in water, and, in part, the relative ease with which these substances appear to be eliminated by the kidney.

It may be further observed that the sugar concentrations of the spinal fluid in these fifteen cases averaged 57 per cent. as much as that of the blood.