arachnoid space. Following the injection of an irritative substance into the subarachnoid space evidence of damage to the cord was seen in all animals and in only 6 was there recovery to such an extent that the use of the lower extremities returned. Only 4 animals developed adhesions and in 2 of these adhesions were scant and extremely fine. The failure to produce satisfactory adhesions prevented the performance of the second part of the experiment; *i. e.*, the prevention of the reformation of adhesions.

The occurrence of myelitis in all animals may have been due (1) to mechanical pressure and (2) to chemical irritation. We are inclined to accept the latter view (1) because of the extreme degree of cord destruction of those animals that died early and (2) because there was little clinical difference between the animals which received large and small amounts of aleuronat.

5030

Experimental Polyneuritis in Chickens Given Jamaica Ginger.

J. H. WATKINS. (Introduced by J. H. Musser.)

From the Department of Medicine, Tulane University.

Four apparently healthy chickens weighing approximately one kilo each were used in this experiment. Jamaica ginger obtained from a community where there were many patients with peripheral neuritis was used. Two of the chickens received daily doses of 2 cc. fluid extract of ginger and the other 2 received an equal amount of 83% ethyl alcohol. The chickens were kept in a cage out of doors and their diet consisted of cracked corn and oats. The chickens receiving the alcohol were accidentally killed 10 days after beginning the experiment.

Thirty-eight days after receiving the first dose of ginger and after each chicken had been given a total of 70 cc. there were no signs of muscular weakness. There had been some loss of weight during this time. On the thirty-ninth day the chickens exhibited slight motor weakness and loss of coordinating power in both extremities. Feeding ginger was discontinued at this time. During the next 2 days there was a progressive motor weakness and the difficulty in walking or standing was marked. Control of the feet was completely lost and the toes were turned under the feet when an attempt was made to walk. The legs rather than the feet were used

to support the body when resting. There was apparently no sensory disturbance of the extremities and no edema was observed.

A thick suspension of rice polishings was given through a tube when the paralysis was first observed and daily thereafter for a period of 5 days without any improvement. One of the chickens died 8 days after the onset of the paralysis. Sections of the nerve trunks have not yet been examined. Motion pictures were made to demonstrate the paralysis.

Further investigation is under way at the present time using a larger number of chickens and employing ginger with phenol, ginger without phenol, and ethyl alcohol. At the present time only those chickens receiving phenol ginger show leg weakness, 9 days after beginning the experiment.

5031

A New Method of Increasing the Precipitating Action of Syphilitic Serum.

FOSTER M. JOHNS.

The practice of heating serum to 56°C. for 30 or more minutes unquestionably increases the precipitating ability of blood serum from syphilitics for the saline suspensions of lipoid-cholesterin antigens now used in the precipitin test for syphilis. Insistence upon the use of "inactivated" serum in such precipitin tests apparently began in 1918 by Sachs and Georgi,[1] and was followed by Meinicke in his third modification in 1919,[2] and by Dreyer and Ward[3] in 1921, and Kahn[4] in 1922.

It is rather paradoxical that heating of serum should lower the "specific" antibody titre utilized in the Wassermann reaction by 75%, as shown in the now classical researches of Noguchi,[5] and simultaneously increase the precipitin titre by 8 times (from 10 to 80 Kahn units) as was recently shown by Kurtz[6] in Kahn's laboratory. The explanation advanced by Dreyer[3] of a complex antisyphilitic antibody, composed of a thermostabile precipitin coupled

[1] Sachs and Georgi, *Med. Klin.*, 1918, xiv.

[2] Meinicke, E., *Munchen. Med. Wchnschr.*, 1919, xxxiii.

[3] Dreyer, G., and Ward, H. K., *Lancet*, 1921, i, 956.

[4] Kahn, R. L., *Archiv. of Dermat. and Syph.*, 1922, v.

[5] Noguchi, H., *Serum Diagnosis of Syphilis*, J. B. Lippincott Co., Phil., 1910.

[6] Kurtz, M. B., *J. Lab. and Clin. Med.*, 1930, xv, 7.