result. At Dr. Meltzer's suggestion, an attempt was then made to establish the facts in the case and to determine any other points of interest in the antagonism between these two drugs.

My results and methods may be briefly reported as follows:

First; a method of registering the general fibrillary muscular contractions was worked out, the best result being obtained by stitching a tambour to the skin over the gluteal muscles, with the leg in a flexed position.

Second; while writing the fibrillary tremor caused by eserin, $MgSO_4$[1] was slowly injected into the jugular vein. The result was an invariable stoppage of all tremor. This stoppage was brought about in from one half to one and a half minutes according to the rapidity of injection of magnesium. If the initial dose of $MgSO_4$ was sufficient, there was no recurrence of eserin tremor.

Third; an attempt was made to ascertain whether $MgSO_4$ could be used as an antidote for eserin poisoning. Eserin was injected into rabbits intramuscularly in quantities usually sufficient to kill. Afterwards, $MgSO_4$, was injected into the ear vein until the effect of eserin disappeared. In twenty two trials, the animals survived strongly toxic, and fatal, doses. The general tremor and convulsive movements stopped after the injection of from 2 to 4 c.c. of $MgSO_4$ solution. The magnesium effect was usually marked, however. If the depression of respiration was sufficient to cause danger of asphyxia, the injection of 1 c.c. of $CaCl_2$ solution into the ear vein was usually sufficient to counteract the action of $MgSO_4$ on the respiration.

Fourth; the myosis produced by instillation of eserin, is not removed or modified by any dose of magnesium.

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Influence of iodides on autolysis.

By **L. B. STOOKEY.**

[*From the Physiological Laboratory, Medical School, University of Southern California.*]

Dogs were given 0.1 gram of KI per kilo daily over periods varying from one week to three months. Only in one case were

[1] In the use of magnesium sulfate, molecular solutions were employed in all cases.

typical symptoms of iodism prominent. The dogs were killed by bleeding from the carotids under ether anesthesia, the organs removed in the usual manner, hashed, divided into convenient portions, mixed with seven parts of saline and allowed to undergo autolysis at 37°C. in the presence of toluol. Kjeldahl determinations were made on the half saturated zinc sulphate filtrate and on the acidified saturated zinc sulphate filtrate.

In all cases the rate of autolysis was found to be considerably faster than that of organs taken from normal dogs. The *increased* rate of autolysis was noticeable particularly in the liver and kidneys, and especially during the first twenty four hours.

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Relation of the thyroids to autolysis.

By **L. B. STOOKEY** and **VERA GARDNER.**

[*From the Physiological Laboratory, Medical School, University of Southern California.*]

Dogs were thyroidectomized. Typical symptoms of thyroid removal, appearing at variable intervals after the operation, were prominent in all the animals. From five to ten days after thyroidectomy, the dogs were killed by bleeding from the carotids under ether anesthesia, the organs removed, hashed, divided into convenient quantities, mixed with seven parts of saline and allowed to undergo autolysis at 37°C. in the presence of toluol. Kjeldahl determinations were made on the half saturated zinc sulphate filtrate and on the acidified saturated zinc sulphate filtrate.

In all cases the rate of autolysis of the organs from thyroidectomized dogs was slower than that of the organs from control animals. The *decreased* rate of autolysis was noticeable particularly in the liver and kidneys, and especially during the first twenty four hours.