ment in our experiments proves a greater hormone content weight for weight in hypophyses of gassed rats.

Conclusions. 1. The combined testis and epididymis weight in rats is reduced about half after 50 or more one hour exposures to illuminating gas. The number of spermatozoa is greatly decreased and motility in the few viable sperm is impaired. 2. The hypophyses of gassed male rats become highly basophilic and many vacuolated castrate cells appear. 3. The gonadotropic hormone content of the hypophyses of gassed rats is increased.

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Myotonia Congenita in the Goat.

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In the course of conditioned motor reflex experiments on goats, we had the opportunity of observing so-called "stiff-legged" goats. Four such animals were furnished us through the kindness of Mr. D. E. Motlow, of Lynchburg, Tennessee.

It has been noted for years that animals of this strain, when startled, stiffen and fall over, remaining immobile for some seconds in what at first appears to be a general tonic spasm. Accordingly, they have commonly been labelled "nervous," "stiff-legged" or "epileptoid" goats.

Our investigations show, however, that this seizure is not a general tonic spasm produced by a special type of stimulus, but is caused by the failure of individual muscles to relax normally when strongly stimulated after a period of rest.

Stimulation of the motor points of the thigh with an adequate faradic current produces, not a simple twitch, but a tetanic contraction of the individual muscle or muscle group, with relaxation in from 5 to 30 seconds. On successive stimulation, the period of relaxation is progressively shortened until it approaches the normal twitch. Percussion of the muscle elicits a myotonic contraction of a few fibers, with characteristic slow relaxation.

These symptoms are accentuated by cold and by prostigmin (Roche), and are relieved by adequate doses of quinine.

These findings, together with the hereditary aspect of the anomaly, lead us to believe that we are dealing with Myotonia Congenita in the goat.