uniform with only an occasional accessory check and the winter check is quite definite. The growth during the first year is invariably poor and the ridges are very close together, but there is no difficulty in distinguishing the first winter check. Fish over three years old have usually spawned on one or more occasions, and it is after the first spawning that the scales are unreliable for age determinations. Most of the females spawn in the fall of the fourth year and the males a year younger.

In about 67 per cent. of the cases the ages can not be determined correctly from the scales, the fish being anywhere from one to four years older than is recorded on the scales. This is due to the fact that the mature fish, spawning consecutively for a number of years, grow very little from one year to the next. Consequently the scales show little, if any, growth, and this, coupled with extensive scale absorption, renders the scales difficult, or impossible, to be interpreted correctly. For example, one fish was tagged in 1931 and taken again in 1933 and 1934 on the spawning grounds. It increased in length 7 cm, the weight remained the same, namely, 2.75 lb., and the scale age in 1931 was 3+ years and in 1933 and 1934 was 4+ years with one spawning mark. Thus the true age was 6+ years and the scale age 4+ years.

The scale absorption during the spawning season is very extensive in the posterior region of the scale and along the sides, but seldom extends to the anterior edge of the scale. In contrast to sea salmon the two layers of the scale are almost equally absorbed. The outer layer, though, is absorbed slightly more than the inner layer, thus forming ridgeless scars to denote the spawning mark, but these occur only at the sides of the scales and are quite often completely absorbed by subsequent spawning when the fish are annual spawners. The spawning mark is always followed by closely spaced ridges, and when the sides of the scales are absorbed enough to eradicate the ridgeless scars, all that remains of the spawning mark is a band of closely spaced ridges in the middle of the scale. It is then rather hard to distinguish a spawning mark from a winter check, for likewise all that remains of the winter check is a band of closely spaced ridges in the middle of the scale. In the spawning check, however, a few of the ridges are very close together, and these are followed by wider and wider ridges until summer growth is reached, but the closest ridges of a winter check are followed quite abruptly by the wide summer ridges. This distinction is applicable to the salmon from Chamcook Lake, but evidently each lake presents its own problem since the winter check is already formed by the middle of November, *i.e.*, before spawning, in salmon from nearby Gibson Lake, and consequently the winter check and spawning check occur together. In Gibson Lake, which is a smaller lake than Chamcook, the seasons occur earlier and the salmon are similarly affected.

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STABILITY OF CONDITIONING AND SEXUAL DOMINANCE IN THE RABBIT

IN a series of studies[1] on the dim visibility curve, bright visibility curve, and color vision for the rabbit, I noted an interesting correlation between stability and magnitude of the conditioned breathing response to light and sexual dominance. Conditioned breathing responses were established in six males at six months of age and were studied intensively in three over a two-year period. Characteristic homosexual behavior was present throughout this period. It was possible to rank each of the six animals in terms of the number of other rabbits it dominated in male sexual activity. Ranking in terms of sexual dominance agreed well with the consistency and magnitude of the conditioned responses. The more dominant an animal the greater were the consistency of conditioned response from day to day and the magnitude of response.

It was also observed in the three rabbits which were studied for two years that changes in sexual dominance were accompanied by changes in the stability of conditioning. At intervals of two, three or four weeks, a reversal of the male rôle occurred for one or more of the three relations between the three rabbits. Such reversals correlated with changes in conditioning. A formerly dominant animal became less consistent in conditioning upon assuming the female rôle in sexual activity, and a formerly submissive rabbit became more consistent when it assumed the male rôle over one or both of its partners.

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"MEDICAL CLASSICS"

THE second number of Volume 1 (1936) of a new journal, *Medical Classics,* is devoted to Sir Charles Bell. It contains an 1833 version of Bell's paper, "On the Nerves," originally published in 1821 in *Philosophical Transactions of the Royal Society.* In brackets between the title and text this alleged reprint bears the inscription, "Read before the Royal Society, July 12, 1821." The editor's use of this version is on the ground that "it includes two additional illustrations." Although this reprint bears the specific statement in cold print that the paper was read before the Royal Society, this is not the truth. It is the doctored ver-

[1] R. H. Brown, *Jour. Gen. Psychol.,* 14: 62–82, 83–97, 1936; 17: 323–338, 1937.