sterilized without loss of radium, for the protective coat effectually resists even continued boiling. The author demonstrated the radioactivity of a strip of celluloid which had been coated with radium and thereafter had been covered with collodion. The strip was then placed in water in a test tube and the contents vigorously boiled. Both the radium and the collodion solutions used for the preparation of the coatings had been colored with a soluble blue anilin dye. That the collodion protected the radium in this experiment was shown by the fact that the water, after boiling, was entirely free from color. The strip also retained its original radioactivity.

The availability of the radium coatings for many kinds of biological investigation is so obvious that nothing need be said here on that point. [See page 86 (150).]

9 (55). **"Some of the physical phenomena of muscle fatigue,"** with demonstration of tracings: **FREDERIC S. LEE.**

The investigation of the subject has been continued by the employment of a method by which the isotonic curves of all the contractions of an excised non-curarized muscle stimulated at regular intervals, are superimposed upon a recording surface. The differences which were previously pointed out in the mode of fatigue of the muscles of the frog, the turtle and the mammal, have been confirmed. Lohmann's work, in which a frog's gastrocnemius on being heated to a mammalian temperature, shows a course of fatigue similar to that of mammalian muscle, has been repeated and found incorrect. Both that muscle and the turtle's coracoradialis profundus, similarly heated, continue to give their characteristic curves of fatigue. [See page 60 (124).]

Kaiser's method for determining the point of the isotonic curve where the contractile stress terminates, has been employed for the frog's gastrocnemius, and it has been found that as the height of the curve diminishes in the course of fatigue, the contractile stress terminates at progressively lower and lower points. The lowering of the latter does not, however, seem to keep pace with the lowering of the summit of the curve. Hence the two points seem to approach one another.