The table of the rate of chirping of the individual cricket shows that the rates of even an individual are not closely correlated with temperature. In fig. 15, the fact that one of the solid lines lies, throughout the greater part of its length, above the other shows that the rate of one cricket is almost constantly higher than that of the other. This can hardly be explained except by individuality. The crossing and recrossing of the two lines must then be explained by another factor (physiological state) which I discuss in another place.

IV.—Synchronism.

I found exact synchronism to be comparatively rare, and to exist only between neighbouring crickets. When accurate synchronism did occur, it affected usually only two individuals, sometimes three. One evening I discovered two crickets about five feet apart chirping in such accurate unison that I did not at once realize that there were two crickets. One soon stopped; the second hesitated, its chirp became weak, and it even lost a beat. After an irregular solo of several minutes, the second cricket recommenced. At the first chirp the first cricket struck a note out of time, then lost a beat, as if startled. It next voiced a half-dozen weak, uncertain chirps, then the call gradually grew in intensity, until the two crickets were again chirping in exact unison.

V.—Summary.

1. While there is a general correspondence between temperature and rate of stridulation, there are numerous variations of rate that cannot be accounted for by differences of temperature. Dolbear's formula cannot be applied to my observations without a possible error of 6°.65.

2. Rate of stridulation is in no way correlated with wing-length.

3. Humidity seems to affect rate of chirping, but the evidence is not conclusive.

4. The rate of chirping of different crickets under the same external conditions depends on their individuality.

5. Synchronism is rare, and is observable in only two or three individuals near one another.

VI.—Discussion.

It is clear that Dolbear's and Bessey's laws are only approximately accurate. Temperatures computed from them may be expected to vary from observed temperatures as much as 6°.65 with the first formula, and 9°.69 with the second. Any expression for the rate of chirping must be a function of several independent variables, of which temperature is only