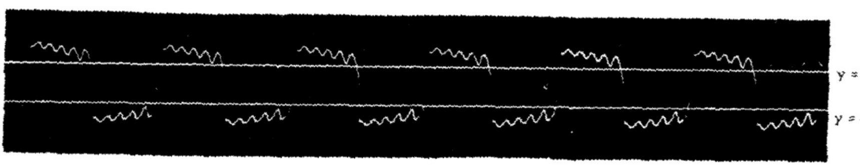
While they are on C_2 , Γ_1 and Γ_2 are walking a tight-rope. The unstable periodic Γ behave in this way just before each of their shoot-throughs, which are many when the period of Γ is long, and they slice or pull differently each time.

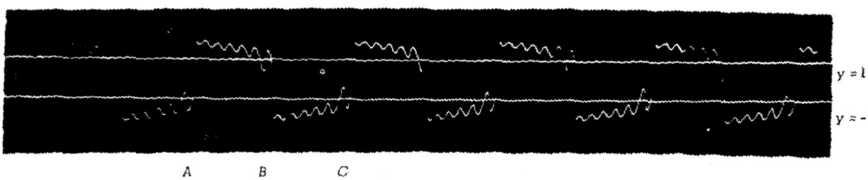
I have now to report a very surprising development, an electronic calculation discovery by A. Warren,[6] under the supervision of H. P. F. Swinnerton-Dyer. His k is 5 , which is a good bet for being "large." For a certain b he finds two <u>stable</u> periods of orders 11 and 25, completely breaking the $2n \pm 1$ rule. Photographs of these are given in Fig. 3.

We can interpret the photographs in terms of the " k large" behavior we have been describing, at least up to a point. We must, of course, regard b as being in a transitional interval, and Γ_{11} as the stable Γ we said above might be expected. (Γ_{11} does not make any dips, but this is normal in part of the range of b .)

The photograph of Γ_{25} reveals that it follows part of a C_2 at A, B, and C (pulling at B and invertedly slicing at A and C). The surprise, of course, is that, its three "exponentially" dangerous walks notwithstanding, it succeeds in being stable. After this there seems no reason why, for a single b and different initial conditions, slices and pulls could not happen in a variety of ways, in which case there could be 3 or more different stable periods.



Stable trajectory - sub-harmonic order 11



Stable trajectory - sub-harmonic order 25

Figure 3