

from the substance in which they have been feeding. Hutchison (*l.c.*) found that the majority of the pupæ were scattered about the drier margins of the heaps of horse-manure, sheltered by the overhanging straw, and that whereas, in one heap, he found about 9000 pupæ in this position, not more than 100 were found below the soil. In this connection the following observation appears to be worthy of record.

Following the experiments which I carried out (1914) on the control of the larvæ by various insecticides, it was decided to examine the soil around and beneath the untreated and consequently natural heap of horse-manure with a view to ascertaining the distance and depth travelled by the larvæ prior to pupation. Also it was desired to discover whether any of the insects were overwintering in the pupal state; to this aspect of the question I shall return later.

The manure was removed on May 13th and the soil subjacent to and around the site of the pile was carefully removed and an approximate record was kept of the numerical abundance of the puparia at the different depths below the surface of the soil to a distance of about four feet around the site. This task was carried out for me by Mr. S. N. Lord, to whom my thanks are due. The results of this examination of the soil, which was a sandy loam, are represented diagrammatically in the accompanying figure.

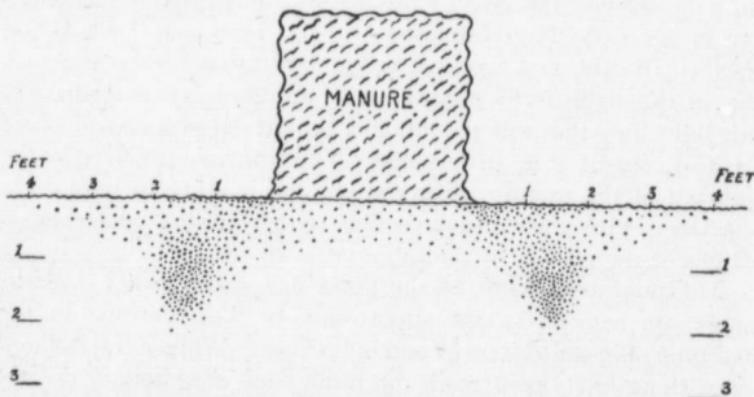


Fig. 7.—Diagrammatic section through heap of manure and subjacent soil to show the migration of the larvæ of *Musca domestica*. The drawing is to scale, distance and depth in feet being indicated. The black dots in the soil represent the puparia. (Original).