

*Nest Construction and Location.*—There is no sign of any mound-building tendency on the part of any ant on Gibraltar Island. This may be partly influenced by the fact that the soil is shallow over the rocks in most places or that the grass has been kept mowed for many years.

McCook's observations that the *F. fusca subsericea* colonies which are constantly raided by *sanguineas* tend to conceal their openings, can be clearly verified by watching the Gibraltar colonies. Their nests are usually located in cut grass and from the surface show only a series of scattered openings with none of the excavated earth or cast off pupae cases which so often give the clue to nest location even when no mound is formed. The number of openings varies from two or three to as high as twenty scattered over an area five feet in diameter. Seemingly most of the colonies are small in comparison with the usual species size. There is a distinct and consistent tendency to plug some or all of the entrances with soil, pebbles, or grass. This is especially conspicuous just after nests have been raided.

The mixed *sanguinea-fusca* colonies show a markedly similar tendency toward inconspicuousness which indicates strongly that the slave members of the colony determine its mechanical structure.

The Walk Nest is located on a gently sloping lawn and extends on both sides of a cement walk. It is approximately one hundred inches long and seventy-five inches wide. Entrances are scattered irregularly, usually nine or ten above the walk and five or six below it. Their positions vary as new entrances are frequently opened and old ones plugged. There is no sign of debris at any time because of the workers' care in removing and depositing it beyond the confines of the nest. Individuals have been observed to go two feet from the nest to lay down an empty pupa case or bit of soil.

The Dock Nest extends along a ridge for one hundred thirty-five inches, the entrances all lying close along the curvature of the ridge top. Usually there are eight or nine openings, the number varying from time to time even more than at the Walk Nest. The greatest number are open during the days of flight. At no time are all the entrances used, for activity shifts from day to day from one group to another, depending on which is nearest the line of raid. After a rain, those caved in are promptly reopened.

*Typical Raiding Activities.*—On the morning of August 7, 1939, there was no sign of any activity about the Dock Nest. Single black ants were going back and forth foraging while a few reds were standing about. At about 3:30, a group of 14 started out rather slowly from the nest; these were followed soon by other clusters. Almost immediately some returned to the home nest so that soon the column consisted of ants going in both directions. It did not progress very rapidly for the first 15 minutes. Then there was a speeding up in progress because more ants went straight forward and fewer turned back so that an advance of 48 feet was made in the next half-hour. The line was a typical exploratory one, the ants forming a broad column about three feet wide and exploring every crack along this line. There was no constant front but the line simply faded into a few scattered individuals