

welves therewith, employ it on the most convenient objects they meet. In this respect they follow our own example, for, when the heat of summer departs, and the cold of winter sets in, our carnivorous propensities are more powerfully excited. It is wonderful how the beneficent Creator adapts the instincts and habits of animals to the circumstances in which they are placed, and a very remarkable instance of this is the fact that in the New World, where the Summer is so brief, and at that period of the year when the air is getting cold, the fly is changed into a carnivorous creature. But the eating habits of the fly are altogether remarkable. He may be said to be *omnivorous*, and this is surely a very unusual characteristic of insects. He delights in sweets, and he gloats on corruption. He has the tastes of a gentleman and the habits of a scavenger. Whatever kind of meal you may sit down to, he is sure to be a guest. There is an easy way of knowing whether your maid, after removing the cloth, has been careful to clean the table thoroughly. If she has neglected this part of her duty, the fact is immediately announced by a busy crowd of flies traversing the table and picking up the relics. Every creature has some important function to fulfil in the world. The crow clears the farmer's new-ploughed fields of grubs and insects which would be destructive to the tender plants and buds. The skunk must keep a whole host of vermin at bay. The frog purifies the wells and waters which he inhabits. The weasel is an active policeman, who keeps down weaker depredators whose increasing numbers would make them formidable to the husbandman. The louse is a Sanitary Commissioner, whose office is to enforce the law of cleanliness; and the fly is a Scavenger who removes a thousand impurities which escape the sight of man and woman. He is most active in his calling just at the season when he is most needed. But our house-fly does not spend all his time eating. He has a good deal of leisure on his hand, and he leads a merry and a happy life. Cast your eye upward towards the ceiling, and you will see how he employs his vacant hours. There is always a grand ball going on there, a select company of dancers, dancing to their own humming music, and going through a regular set of quadrilles. They sail through the air with steady expanded wing, making, as they go, symmetrical figures, crossing in transverse lines, often letting a slap at each other as they pass, and bounding off, but always preserving the order of the dance as carefully as any company that ever footed it on the springing board to the harmony of measured sounds. I have often watched these fly dances with great pleasure. There is a manifest and unmistakeable sense of enjoyment in all their movements; they clearly meet together to carry out a social frolic, and, for the time being, have no food-seeking ends in view.

These are the filled and satisfied ones, who are conscious of no want and no cares. Light is the darling element of the fly. It stimulates, excites, enraptures them. Warmth also they must have, but warmth without light will not suffice to develop their energies and talents. When the golden sunlight is shining full in at the window, it floods them with joy, and then it is that their buzz is loudest and their flight most rapid. If a bright beam fall across the table, this radiant pathway will speedily attract several travellers. There you may observe them drinking in the light and trimming their lambent wings. Suddenly darken your room, and though all before was bustle and hilarity, in a few minutes you will have universal silence. We need not wonder at this, since they have each more eyes in their head than you could count. Where such ample provision has been made for the reception of light, we may conclude that it is an essential condition of their existence. A fly cannot move its head about at will in any direction as we can move ours, and it is presumable that it wants the sense of hearing. To make up for these defects, on each of these large projecting lobes which we call eyes, it has a multitude of small mirrors, so that no object can approach from any quarter without sending its image before into one of these mirrors. The instant the image strikes, the insect is off, and it is a difficult thing to catch a fly by surprise. Most insects are similarly furnished with "complex eyes," and I believe the spider is unusually favored in this way. He is, in fact, all eye, claw and fang. If the fly is a useful Scavenger, we know he is apt to be too prosperous. Wherefore the office of the spider is to keep him within reasonable bounds, so that the balance of nature may be preserved. This is an office which man performs for himself in relation to his own species. That he may not be remiss in this duty, he exercises a great deal of ingenuity and perseverance. Take a walk into an Arsenal or a Distillery, and you will see the engines and the apparatus by which he makes sure that the earth shall not be too narrow for him. Barbarians, in pursuance of the same end, eat one another. Civilized men create monsters which perform their work for them, and the deep-mouthed Cannon devours, and the fiery demon of Drink destroys, thousands of the species every year.

The microscope is necessary for the proper study of the Insect kingdom. It is a new sense to the body, a new arm to the intellect, and has opened up to the human eye a world of wonders, of which man had not dreamed before. But before attempting to describe what the microscope reveals of the structure of the fly, I must borrow from my scientific friend, the Rev. Mr. McKinnon, the beautiful instrument he owns. The wing is an object for a week's study. What a complicated