

other urchin) delights to destroy, regardless of the labor which has been expended in its construction, or of the many lives it contains. They are also the possessors of powerful



Fig. 9.

stings, as many of the said urchins experience and of which I have myself felt the venom on several occasions. The "yellow-jackets" who have a nest hid in a clump of raspberries delight to put to flight those who would pluck the fruit of the vines, and the old wasp who has commenced her home in the woodshed is jealous of intruders. *Vespa maculata*, (Fig. 9,) the white-faced wasp, whose colours are black and white, may very frequently be seen on old palings, boards, dead trees, etc., scraping off with its mandibles the fibres of wood, which it carries off to its nest and uses in its construction.

The household of the wasp consists in summer of three sorts of individuals (as in the ants) of which the workers, or sterile females, are the most abundant. The colony is not, however, a perennial institution like an ant-hill, but lasts only for one season. It is founded by an impregnated female, which has managed to survive the winter in some protected crevice, and which, revived by the warmth of spring, comes forth to commence her housekeeping. Building a comb of a few cells, she deposits an egg in each, and when the larvæ are hatched she feeds them carefully with the juices of flowers and animal matter, or with finely masticated morsels of insects such as flies. These larvæ develop finally into workers which assist their mother in enlarging the domicile and in rearing new broods of inmates. The nest grows larger and larger; new coverings being constructed without, and the inner ones demolished to give room for the new rows of cells which are added to the combs. These combs are placed horizontally, suspended one below the other by columns. The cells are constructed mouth downward so that the larvæ have always to stand on their heads, or rather to hang by their tails, seemingly a very awkward and dangerous position in which to spend this period of their existence. The time taken to pass from the egg to the perfect state occupies about a month, and thus there can be several broods in the season. The last one contains males and fertile females, and, as has already been stated, some of the latter survive the winter to be the founders of new colonies. The species, of which there are several, constructing the large nests all belong to the genus *Vespa*.

There is another wasp which constructs a tiny nest of a few cells under flat stones, etc., which belongs to the genus *Polistes*. Its nest is not surrounded by a papery envelope, but is merely attached to the under side of a stone by a short foot-stalk, and it is never enlarged to accommodate a large family. The name of the species is *Polistes pallipes*. (Fig. 10, *a*. wasp, *b*. nest.)

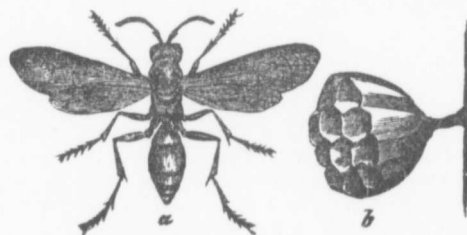


Fig. 10.

ANDRENIDÆ.

The insects contained in this family with those of the following one (Apidæ) are by some entomologists grouped in a sub-order, or tribe, to which is given the name *Mellifera*, or Honey-makers. Abbé Provencher has grouped into this family many genera which are sometimes placed with the Apidæ, and includes in that family only the genera which form the sub-family Socialinæ of some authorities. It will suit us very well here to follow the Abbé and the family as by him constituted will be found to contain about twenty-five genera, and over one hundred species.

Its members are commonly known as "Solitary Bees," and differ also from the Apidæ, or "Social Bees" in not having sterile females, or workers. As might be expected, the species vary much in their habits, and in their modes of making provision for their

offspring. A few the stores of honey, worthless individuals which honestly to hairs either on the

The females stiff brushes on the hairs in which to deposit

The species of the long hairs a few inches, and reception of an egg criminally from garnered.

Halictus also the preceding, and small—the smaller larger species have

Our most beautiful of a beautiful wood, or may be *postemon tricolor* colored markings little red bees, *N. americana* has or markings of yellow



crevice is filled. very great, for the honey bee in size part of the abdomen and fringed with

Osmia contains the abdomen, but the lustre, and have