



FIGS. 1 AND 2.—HIVE AND SHIPPING BOX.

mense distances in order to regain its cote, and with a speed equal to, and often greater than, that of our fastest trains, by an insect incapable of guiding itself if the hand of man or the force of the wind carries it to some leagues from its hive, and whose qualities of speed bear no comparison with those of the winged messenger that is called upon to render so great services in time of war. Do not be uneasy, for such is not our thought, and we do not believe, even, it is that of Mr. Teynac, the distinguished bee master of the Gironde, who has conceived the idea of this ingenious innovation. It is a question, for the moment at least, only of some curious and interesting experiments, which are insufficient, however, to permit of prejudging of the services that this new mode of transmitting correspondence may render in the future. However this may be, the results obtained up to the present by the author of this method are so remarkable that we do not fear to lay them before our readers, being certain that they will think, as we do, that we have here the elements of a most interesting study. Numerous experiments, not altogether new, have established the fact irrefutably that, if a swarm of bees be inclosed in a bag and carried to a distance of less than two or three miles from the hive, and the bag then be opened, the bees, after whirling around for a few instants, will quickly take flight in the direction of the hive with that certainty of instinct with which nature seems to have endowed all animals to a greater or less degree. The most active ones will cover the distance within a length of time varying between twenty and twenty-five minutes, which corresponds to a mean speed of seven miles per hour. It was starting from this fact that Mr. Teynac conceived the idea of utilizing the instinct that leads the bee to its home for making a messenger of it, and

that he constructed the material represented in our engravings, and the use of which we shall explain.

Let us suppose that the owner of a swarm wishes to establish a system of correspondence with a friend whose residence is 2 or 2½ miles distant from his own. He begins by sending him a small hive constructed as shown in Fig. 1, and well stocked with bees and food for them. At the end of a few days, the bees will be sufficiently accustomed to their new surroundings to allow experiments to be begun. A certain number of bees are taken from each hive and introduced into a small shipping box (Fig. 2). The greater part of the top of this box is covered with wire gauze, which permits of the entrance of air to the prisoners. The bees are introduced through the orifice, 4, that may be seen to the left of the box, and which is afterward closed by the pivoting cover, 2. In this way, the sending may be easily done by mail. On reaching their destination, the bees are set free in a room in which a saucer containing a little honey has been arranged upon a table. The bee alights on the repast, and this is the moment that the operator must take advantage of to glue to its thorax the previously prepared dispatch. As may be seen in Fig. 3, the extremity of the dispatch (here magnified ten times) is slit with a pair of scissors so as to form two flaps, which are covered with fish glue and quickly applied to the bee held with pinchers. Care must be taken that the glue does not touch either the head or the wings of the insect, which, as soon as it is satiated, takes its flight and steers straight for its hive. But here it meets with an unexpected obstacle. In fact, care has been taken to place before the entrance of each hive a small tin box having apertures in front of just sufficient size to allow of the passage of the males or drones. The opposite side, which is entirely open,