

OF THE BEE

PPS, PH. D.

al that the subject
 unced for me to
 htened those who
 uld like in the first
 use of the word
 been used in con-
 shall have to say
 which is not com-
 erature, and I am
 not entirely satis-
 hich we ordinarily
 peak of the habits
 that term we mean
 tivities under nor-
 ditions. However,
 out, there are cer-
 should not use the
 word habit, as you
 gnate those activi-
 gh and which we
 f past experience.
 ts. The bee does
 e habits, although
 gs which it does
 than we do; and
 ouble meaning, it
 rd behavior, which
 of the bee under
 conditions.
 ny of bee-keepers
 ries may seem al-
 must confess I did
 which is given to
 I have on several
 ries or used the
 nced for me this
 it in a somewhat
 shall try to-night.
 an audience of
 w anything about
 not bring me to
 ght make, I might
 tale to tell than
 ore a company of
 there are some
 or or bee activity

that it seems to me bee-keepers should
 bear more in mind, and as an excuse or
 apology for choosing such a subject as
 this it is perhaps only necessary to call
 attention to the fact that all of our man-
 ipulation and all of our bee work is
 based on the foundation of the things
 that bees do under normal and abnormal
 conditions. If we take the literature on
 bees it is true, and perhaps unfortunately
 so, that we find very little discussion of
 the fundamental principles on which we
 do our work, and I have often wondered
 what the state of mind of a beginner
 must be to come to a convention or to
 talk with beekeepers and hear them talk
 about these different manipulations,
 swarm control and honey production and
 what not, and not get the fundamental
 things. The beekeeper gets these from
 constant and continuous experience with
 his bees, but I cannot avoid the thought
 that if we had a simple statement of
 the behavior of the bees naturally with-
 out manipulation that it would give the
 beginner a foundation on which to judge
 of the various manipulations; and as
 things are at the present time he must
 form this opinion of the manipulations
 due to his past experience and perhaps
 has not always formulated well in his
 own mind the story of bee activity.
 With that brief apology for the choice
 of the subject there are several things
 I want to call to mind before saying
 anything about the bees themselves.
 That is the point of view which we
 should have in the consideration of a
 topic of this kind. Now, you all know
 that the poet exercises what we com-
 monly call poetic license in attributing
 to animals and plants, and even some-
 times inanimate objects, thoughts and
 passions, and ambitions even higher
 perhaps than man himself possesses.
 That may be all right for poetry. I
 have no criticism to make of poetry,
 because it has a place in human affairs
 that we are not in a position to remove
 from it. However, when we come to a

serious discussion of a thing which is
 a business proposition with us we must
 get away from all that idea, and we
 must carefully refrain from giving to
 bees human thoughts and human ideas.
 Bees are built on a plane totally differ-
 ent from ourselves, and it is quite fatal
 in the discussion of any subject of this
 kind to give them these ideals and ideas
 which we possess. Closely allied to
 what we may call the poetic attitude
 towards animals is that attitude too
 commonly found among the teachers of
 what is commonly known as nature
 studies. The bee is an ideal animal for
 use in the nature study of schools.
 However, I am very fearful that the
 stories that are sometimes given to the
 children in the graded schools are far
 from being a correct interpretation of
 bee activity. There are several diffi-
 culties which are constantly encounter-
 ed in the study of bees, and this is
 true of the study of any of the lower
 animals. Discussing bees only, I may
 say that one of the primary difficulties
 is in actually making observations. Bees
 do so many things inside of the hive
 where they are hidden from view that
 we are unable in many cases to say
 what they actually do, and outside of
 the hive it is the same way. The things
 they do on the wing, the way they pack
 pollen on their legs, for instance, and
 various other things are extremely diffi-
 cult to observe, because they are mov-
 ing so rapidly and are so inaccessible
 it is often very difficult for us to make
 the observation itself. Another serious
 difficulty is due to a human character-
 istic. None of us are satisfied simply
 with making an observation. It is not
 enough for us to say that a bee will fly
 towards the window if liberated in a
 room, or any of the other things which
 bees do. We always feel called upon,
 and perhaps rightly so, to give a reason
 for anything which we observe; and it
 is in giving reasons that most of the
 errors in the discussions of bees are