

as friends than enemies. I am of opinion that most of King-birds pass their lives without acquiring the habit of killing bees. They breed close to my apiary and I have a good opportunity to watch their habits. I used to shoot them, but don't any more.

ALLEN PRINGLE, SELBY, ONT.—Speaking only for myself I positively and unhesitatingly pronounce the bird "not guilty," and to change my mind, very much stronger evidence must be presented than has ever as yet come before me. On the other hand I have had ocular proof of his innocence. For years I regarded the bird as an enemy about my apiary, and shot him down without compunction as I got opportunity. But finally and fortunately I had an experience with my supposed enemy which quite extinguished the enmity heretofore existing between him and me and at the same time caused me a little pang of compunction when I thought of the powder and shot I had used on him. The experience was this:—One day in August I noticed that a pair of these birds with a brood of young ones just able to fly had invaded the orchard convenient to the apiary. I proceeded with my gun to make a "scattering." Soon I brought one down with its wing broken, which proved to be a young one. I picked it up, whereupon it set up a terrible squalling. This attracted the old bird which would poise itself in mid-air on wing just over my head and within a few feet of it. I noticed that she would only remain in that position a few seconds and then dart off to an apple tree near by and alight. The bees at this time were passing over the orchard in swarms to and from a field of buckwheat. I soon noticed that just as soon as the old bird would poise herself over my head the passing bees would at once attack her and drive her off to a limb. I was struck with astonishment, and witnessed the scene over and over again, as every time I would make the young bird squall the old one would come close to me and suspend herself on wing, whereupon the passing worker bees would invariably attack her with such fury as to drive her again to her perch on the limb. I noticed the bees would quit her as soon as she would alight. I witnessed this manœuvre repeated so often that there could be no mistake about it. As soon as the old bird would poise itself on wing as many apparently as a dozen bees would instantly and savagely attack her and drive her off to shelter. That the bird really feared those bees, while in that position, and was driven off by them, there was no shadow of doubt in my mind, and subsequent experiences have fully confirmed the conclusion then formed. For me the question stands

settled thus; The King-bird knows drones at sight and will eat them at sight and may possibly very rarely take a queen by mistake, but *never eats living workers*. I think it is Mr. Root who says that bee stings have been found in the King-bird and that this proves he does eat worker bees. If this is a fact it does indeed prove that he eats worker bees or queens, but it does not prove he eats *living* ones.

#### UPWARD VENTILATION IN WINTERING.

QUERY No. 54.—It is claimed by most leading bee-keepers that upward ventilation is essential to successful wintering. Can you explain how it is that oftentimes colonies do come through in good condition without any upward ventilation—in fact when almost hermetically sealed on top?

DR. DUNCAN, EMBRO.—The explanation given on query 55 will explain.

M. EMIGH, HOLBROOK, ONT.—Some of our largest bee-keepers do not want upward ventilation.

S. T. PETTIT, BELMONT, ONT.—I cannot. I have my ideas of the matter but don't think it would help any one to put them on paper.

JUDGE ANDREWS, MCKENNY, TEX.—I believe that upward ventilation, so-called, is hurtful both *summer* and winter, in the South, even.

P. H. ELWOOD, STARKVILLE, N. Y.—Bees do not need upward ventilation. If the surroundings are anywise suitable they winter better without.

G. M. DOOLITTLE, BORODINO, N. Y.—It is not essential when plenty of lower ventilation can be given. I am inclining toward less top ventilation and more bottom.

S. CORNEIL, LINDSAY, ONT.—Because they have good ventilation below or in some other direction. It does not matter so much *how* ventilation is given providing it is ample.

PROF. A. J. COOK, LANSING, MICH.—I think as many say that upward ventilation is not necessary as there are that assert that it is, and I think they may be as correct, if not more so.

DR. C. C. MILLER, MARENGO, ILL.—Probably they had abundant bottom or side ventilation. With enough of this and not kept too warm I have known bees to winter well without top ventilation.

H. COUSE, THE GRANGE, ONT.—Cannot answer from personal experience but believe when