

Queries and Replies

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

Difference Between Fertile Queens and Drone Layers.

QUERY No. 284.—I. How do you tell a fertile queen from a drone-layer? (2.) What difference is there between a drone-laying queen's mode of laying eggs and that of a fertile worker? (3.) How do you tell the difference in the eggs before they hatch?—J.

G. M. DOOLITTLE, BOBODINO, N. Y.—Never had a drone laying queen in my life so an answer would be mere presumption.

R. MCKNIGHT, OWEN SOUND, ONT.—(1) Some one who knows more of drone laying queens than myself must answer these questions.

DR. A. B. MASON, AUBURNDALE, O.—(1) By her progeny, or by a microscopical examination of their eggs. (2) Have had no experience with drone laying queens.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—(1) Cannot tell by any difference in the queens. (2) None that I have ever noticed. (3) Cannot tell except with the aid of a powerful microscope.

M. EMIGH, HOLBROOK, ONT.—(1) By the work she does. (2) One is liable to fill a cell half full of eggs, while the other usually lays but one egg in each cell. (3) By the way they are placed in the cell.

H. D. CUTTING, CLINTON, MICH.—(1) From the brood when hatched. (2) A fertile worker places the eggs on the side of the cell, while a drone laying queen puts them on the bottom. (3) I don't believe I can.

B. LOSSEE, COBORG, ONT.—(1) Couldn't tell the difference. (2) Queens laying drone eggs only, lay them regularly; fertile workers irregularly. (3) Fertile workers mis-place them; queens lay them regularly and all queens look alike.

DR. C. C. MILLER, MARENGO, ILL.—(1) You can't tell them apart till their brood is capped over. (2) A laying worker lays irregularly, perhaps several eggs in a cell and prefers drone cells. (3) You can't, unless by the irregular laying.

S. CORNELL, LINDSAY, ONT.—(1) By her progeny. (2) I have had very little experience with fertile workers. Both place the eggs in

cells irregularly, in different positions and often several eggs in the same cell. I do not know of any characteristic difference between the modes of laying eggs.

PROF. A. J. COOK, LANSING, MICH.—It were better to ask, how do you tell an impregnated queen from one not impregnated? The eggs from the latter will produce only drones. Can only be done by the aid of the microscope, and is quite too difficult then to be of practical value even with the expert microscopist not to say the common bee-keeper.

H. COUSE, CHELTENHAM, ONT.—(1) Fertile queens are generally much larger than drone layers, the latter being not fully developed, the abdomen being more tapering. (2) Fertile workers place their eggs here and there and a number in a cell, while the drone laying queen places her's more uniform. (3) Have not observed any difference.

S. T. PETTIT, BELMONT, ONT.—(1) So far as my observation goes I can tell for a certainty by their progeny. The extremity of the abdomen of a drone layer is comparatively large, while the other parts of the abdomen seem slack, small or poorly filled. Some queens that lay mostly drones are extremely large. (2) Don't know. (3) Cannot tell.

A. PRINGLE, SELBY, ONT.—The fertile queen is distinguished from the virgin by fullness and enlargement of the abdomen, by slower movements, and a greater degree of self-possession. (2) The distribution of the eggs by a fertile worker is less regular in the cells. (3) Whether microscopic examination would reveal any perceptible difference deponent saith not.

J. E. POND, NORTH ATTLEBORO', MASS.—I have never been able to see any difference in the whole matter involved in this question, except so far as results are concerned. Some claim to find a slight difference in size; in the way and manner the queen deposits her eggs, and the position of the eggs in their cells. I have not been able to find any difference of the kind great enough to be appreciable to my eyes. I would pay a handsome bonus to any one who will give an answer to the above containing a sure and certain method of determining the matter involved.

DR. DUNCAN, EMBRO.—(1) A fertile queen lays her eggs more regular, one in a cell where a drone layer often lays more than one in a cell; the latter is smaller in the abdomen and not so easily found as a fertile queen. (2) If a drone layer from old age, she lays quite regular, one in a cell; if a young unfertilized queen there is sometimes more than one in a cell. A fertile worker lays sometimes two or three in a cell, and scatters them promiscuously in and around the sides of the cells. (3) No apparent difference in the eggs only in the order in which they are deposited, and the capping is elevated and converse in all drones before they emerge from the cells.

P. H. ELWOOD, STARKVILLE, N. Y.—(1) By their work usually. Sometimes there is a dif-