

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 difference. (2) I don't know. (3) I don't tell the difference. I have never seen a fertile worker although I have been looking for one for half a score of years. In several thousand swarms made queenless by our method of raising honey I have observed no eggs laid except by queens. In breaking out queen cells when queenless for a week very many stocks will raise queens from the unsealed larvæ. Such queens are good enough to lead off swarms and to make considerable trouble at home. They preserve so much of the queenly appearance that the experienced eye need never confound them with workers. In cool weather the same state of affairs may occasionally present itself after being queenless for eight days.

G. W. DEMAREE, CHRISTIANBURG, KY.—(1) There is no way to distinguish a drone (egg) laying queen from her fertile sister except by her progeny. I have had two or more queens laid none but male producing eggs that were simply superb queens as to size, form, color and majestic carriage and deportment. I kept one of these queens that had every opportunity to mate when of the proper age, during the summer, and part of the fall months, keeping up her working force by supplying her with young workers from other colonies, and with all this trial she produced only male progeny. (2) These queens perform their work just as do the fertile queens. (3) With such queens as I have described you must wait till the brood is capped to distinguish the sex. Once in a great while a young fertile queen will lay a few drone eggs at the start and do awkward work like a laying worker, but come alright afterward.

APICULTURE COMMERCIALY.

QUERY No. 42.—In the March No. of the *American Apiculturist* I asked five questions to which two replies were given, one by Arundell, of California

which was to the point but the conditions between California and Ontario being somewhat different his views might not be applicable here; the other by Mr. Demaree is somewhat unique inasmuch as he thinks "a bee-keeper does not need as high a salary as a first-class clerk." As neither of the replies hits the nail squarely on the head I beg space to repeat the questions and solicit replies through the C. B. J.

(1.) Charging for salaries for work done, for necessary expenses, and for depreciation in the value of accessories, does bee-keeping pay?

(2.) If yes then suppose a specialist having a fair field for operations where basswood is fairly plentiful, say in some line of railroad where his apiaries could be located about every four miles, and running them say for extracted honey at 10 cts. per pound, how many colonies would he require to have to ensure him an average salary of a first class clerk, or say from \$1000 to \$1200 per annum over and above expenses and depreciation?

(3.) How many assistants would he require during the honey yield to operate these colonies successfully?

(4.) Given a first class hive and fixtures, how many colonies could one man examine and extract honey from in a day of ten hours hard work?

(5.) With proper assistance how many colonies run for extracted honey could an apiarist successfully oversee?—Apis Canadensis.

DR. J. C. THOM, STREETSVILLE, ONT.—I have never "ben thar" and don't consider myself capable of giving an answer without using more "ifs" than might be satisfactory to the enquirer.

PROF. A. J. COOK, LANSING, MICH.—(1) Yes, if carried on wisely. (2) In our best locations 100 colonies, if he were a real "bee master." (3) *Very little*. (4) 25 to 30 easily. (5) Mr. Jones must answer this, or Cap. Hetherington.

DR. A. B. MASON, WAGON WORKS, O.—(1) It depends upon the man. (2) From twenty to seventy-five. (4) Almost ad infinitum. (5) With proper assistants an experienced apiarist could oversee thousands of colonies.

DR. C. C. MILLER, MARENGO, ILL.—(1) I can only answer the 1st question and to that I answer "No." This answer may not be correct in all cases, but is the true one in my own case.