

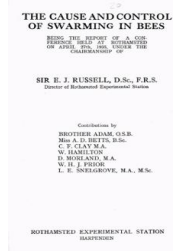
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The Cause and Control of Swarming in Bees

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The Peck Method

C. F. Clay

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THE PECK SYSTEM

By C. F. CLAY, M.A.

MR. S. Peck of Histon, Cambs., being unfortunately prevented by illness from being with us to-day, I am commissioned by him to give a description of his method of swarm-control. Mr. Peck, and his father before him, have been in charge of the apiaries of Messrs. Chivers of Histon, for more than thirty years. As these apiaries have for their main objective the pollination of the fruit trees, the hives are scattered among the orchards, and not arranged in the familiar symmetrical rows of the commercial apiary.

Mr. Peck first states that in order to get good results from his method of swarm control, the hive should have a deep entrance, as it is not convenient to prop open the entrance during hot weather.

The method should be begun when the stock is strong enough to swarm and may be continued until the swarming season is past, or until the stock is re-queened with a young fertile queen.

The queen is first confined to the brood chamber (A), which is done by placing a queen excluder dummy (C) down the centre of the brood box from front to back, and a queen excluder slide (F) is placed half across the entrance to the hive, thus enclosing the queen in a chamber from which she cannot escape. A stop (D) is placed close up against the queen excluder at the entrance, in order that the queen cannot pass round the end. Alternately the queen can be confined by using a hive with combs which run parallel to the entrance, by placing the queen excluder across the hive dividing it in half. Whilst this method gives much greater freedom to the bees at the entrance, it leads to some trouble with the drones which become pent up behind the excluder.

When the supers (G) are put on, the top of the queen chamber is covered with half a sheet of excluder. (E) This is to the advantage of the bees who can enter the supers more easily without having to pass through a queen excluder.

The queen is given five combs which are nearly empty, or filled with hatching brood. It is essential that one comb should contain a few eggs or hatching brood, as otherwise the workers are liable to kill the queen.

After ten days, a very prolific queen will have filled the five combs with eggs, but probably a queen of average capabilities will have failed to fill all five completely. These combs are then exchanged with those on the other side of the queen excluder dummy. The combs taken from the queen chamber are shaken, allowing the bees and queen to remain where they were, and the combs from the other side (B) of the excluder to replace those full of brood, and these

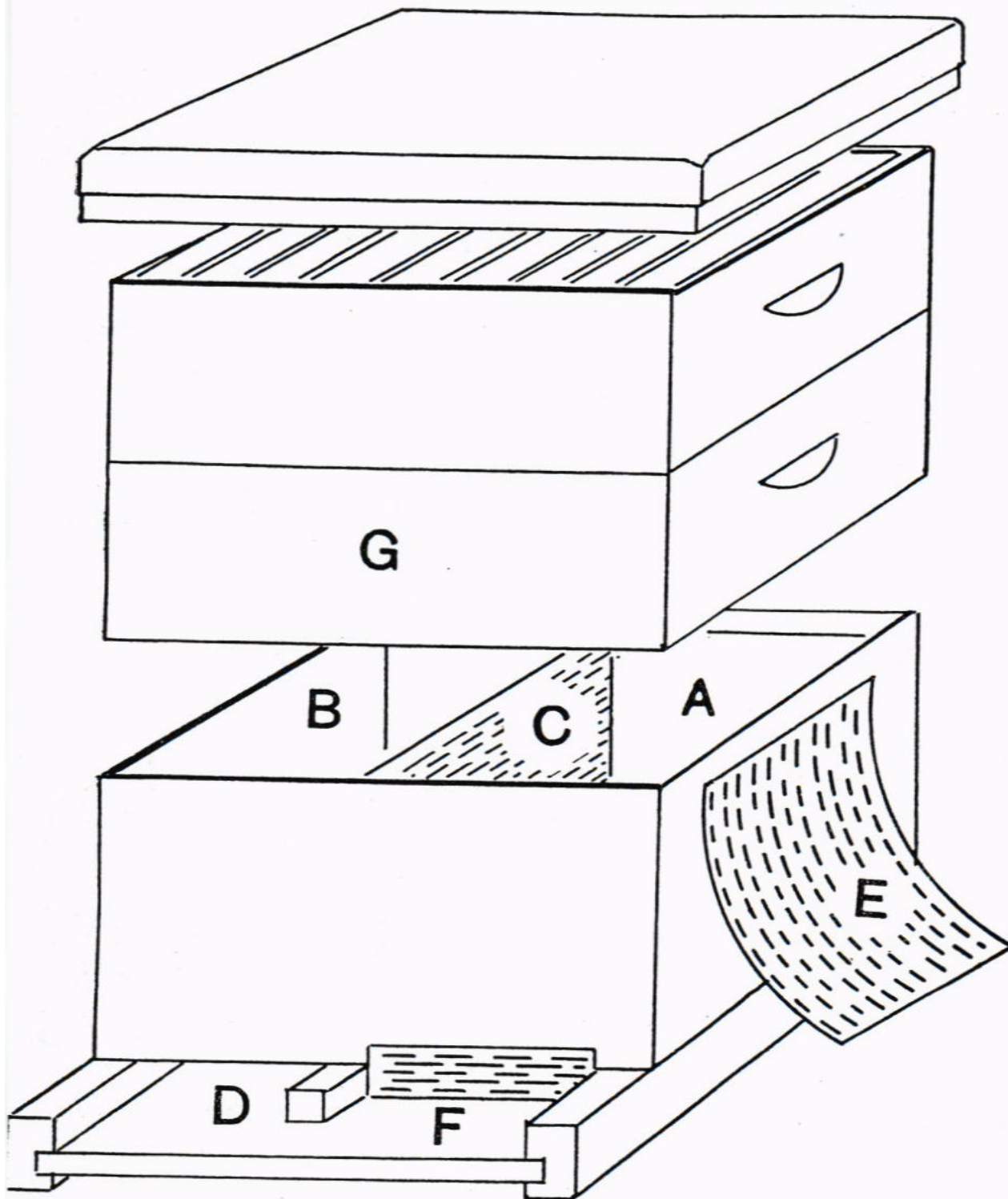


PLATE III. PECK SYSTEM.

- A. Laying chamber containing the queen.
- B. Chamber to which brood is to be transferred every tenth day.
- C. Hanging queen excluder.
- D. Stop to prevent queen passing round end of queen excluder.
- E. Half sheet of excluder, which covers laying chamber (A) when supers are on.
- F. Queen excluder slide over entrance of laying chamber.
- G. Supers.

are put in their place. Shaking should not be attempted during the honey flow, and the queen should be found at the beginning of operations and kept in her proper chamber.

This process is repeated every ten days throughout the swarming season or until the stock has accepted a young fertile queen.

It must be pointed out that the work of the queen is not interfered with nor retarded by this method, as, if she had the run of all ten combs at once she could only fill them with eggs once in twenty-one days, as it takes three weeks for the brood to emerge.

Bees treated in this way do sometimes attempt to swarm, but they return to the hive almost at once. On their return they usually destroy any advanced cells in the queen chamber, leaving the less mature cells until they become a danger to the queen. These cells are removed by the manipulator on his next visit.

If a queen is overlooked in the side of the hive to which the queen has no access, the young queen generally gets mated and returns to the hive, but if two or more cells are missed, the bees will swarm. Only a few bees—about $1\frac{1}{2}$ lbs. perhaps—will go with the virgin queen, as long as the old queen is still confined to the hive.

It is important that frames containing new foundation should not be placed in the queen chamber, as the bees will not draw out combs if these frames are placed between those containing capped brood. Such frames of new foundation should be placed between combs containing eggs which have been freshly removed from the queen chamber.

During the height of the season when queen cells are being formed it is often advisable to make a nucleus, and a comb with a queen cell attached can be removed, and later on united to the parent stock when the young queen is fertile.

It is preferable to use a hive with twelve brood combs which thus allows extra room for honey and pollen near the brood nest. Using this system it is found that bees occupy sections more promptly than usual, and there is no fear of losing swarms through overcrowding. The system is suitable for a large commercial apiary, and given suitable weather conditions, eighty stocks can be manipulated in one day by an experienced beekeeper and one assistant to work the smoker.

In conclusion, I must add that Mr. Peck manages to manipulate so large a number of hives in one day by a methodical visit at which he works with an assistant, opens the hives, shakes the bees back into the queen chamber, puts the frames into a frame box and just lifts over the other frames into their place leaving his assistant to close the hive whilst he goes on to the next. Thus each hive takes only a very few minutes.