est hurry and excitement down the tree, along the ground, and up the board around the skep. Of course, there were now thousands of bees "calling" on the board around the skep. I put my nose down close over this mass of "callers" and I certainly recognised a somewhat pungent odour, which, though not unknown to me in my bee-work, I had never before smelt so strongly. It seemed to bear a faint resemblance to the odour of formic acid made, by a nest of 'Formica rufa' (the large red wood-ants) when disturbed. I was unable to say for certain whether this odour was produced by the membrane in question, but I need hardly say I strongly suspected that it was.*

It is difficult to make bees "call" unless they are put near a queen or the mouth of a hive to which they belong, or want to belong. This is easily illustrated. Pick up a half-chilled bee from off the ground near the entrance of its hive and place her on the alighting-board. She will crawl aimlessly about for some time, but directly she seems to find out that she is at the mouth of her home she is almost certain to stand still and "call." Except in a case like this bees seldom "call" alone. "Calling" is infectious; when one begins all those near her are inclined to take it up if they are sufficiently animated. This is well illustrated by keeping a queen with a few attendants in a cage for some time. At intervals a large number of bees will hum and protrude their membranes.

Bees that were brought into my honey-house on combs, where they gathered in knots on the benches near the windows, under certain circumstances set up a "call-note" without possessing either queen or brood. The "calling" was quickly taken up by those bees that were standing close to those that commenced "calling," and that were too for off to join in the "joyful hum" were quickly attracted by it to the spot.

(TO BE CONTINUED.

* On March 13, after the above was written, while dissecting the abdomen of a bee, I perceived an odour which I at once recognized to be the same pungent odour which I smelled last summer in hiving the swarm and in the experiment with the queen mentioned. I immediately separated Nassonoff's membrane, with as little of the connecting tissue, as possible, and placed it on a piece of card. I placed the whole of the rest of the abdomen on another card. The card with the membrane on it gave out the odour strongly for some minutes but the card bearing all the rest of the abdomen (the sting had been removed) produced no perceptible smell. I repeated this striking experiment with another abdomen, and the result was the same. To my mind this experiment practically proves the theory stated in the early part of this paper.—F. W. L. S.

OUT APIARIES.

(Third Article.)

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Managing an out apiary so as to have no natural swarms, is practically the same as the home apiary without swarms, excepting that in the home apiary the work does not require so much forethought to avoid extra labor in going to and fro to attend to some small matters that might only require but a few minutes. To make an out apiary profitable the work requires careful planning, otherwise if you reckon the time spent in going and coming you may find at the end of the season that too much has been spent in this way. If your out apiary, however, averaged you $10 a day for the time spent there, I should judge that you either have a good locality or have wisely planned your work, or both. An apiary of this kind is excellent for figuring up the profits in the bee business, as it is a very easy matter to keep a record of the number of trips taken and the time occupied with each. As stated in a former article we purpose discussing an out apiary so managed as to have no natural swarms. The two ways previously described are practicable