

PRACTICAL BEE-KEEPING.

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PAPER IV.—CONTINUED.

WAX, COMB AND FOUNDATION.

ADVANTAGES OF FOUNDATION.

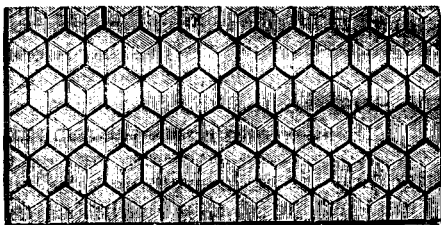
WHEN sheets of wax impressed on each side with the form of cells is called foundation, and though the use of these sheets to aid the workers in the costly matter of comb building, was only commenced by beekeepers some fourteen years ago, it is to-day considered an absolute necessity by fifteen of twenty apiarists. The advantages of its use are, the ensuring of straight combs, and additional surplus. Prof. Cook is very emphatic on this latter point. On p. 311 of his *Manual* he says: I am certain that bees that have to secrete wax to form comb do less gathering. Wax secretion seems voluntary, and when rapid seems to require quiet and great consumption of food. If we make two artificial colonies equally strong, supply the one with combs, and withhold them from the other, we will find that this last sends less bees to the fields, while all the bees are more or less engaged in wax secretion. Thus the other colony gains much more rapidly in honey; first, because more bees are storing; second, because less food is consumed. This is undoubtedly the reason why extracted honey can be secured in greater abundance than comb honey."

The use of plain sheets of wax made by dipping on glass is very old and although they answer fairly well, the bees will not draw them out as readily, nor are they as economical, containing a greater weight of wax to the sheets.

MELTING THE WAX.

There are three processes in making foundation, melting, sheeting and milling the wax. The melting is done in a double walled tank of heavy tinned iron sides and copper bottom. The measurements of the one in use in our wax room is inches long, inches wide and deep. The inner tank is two inches smaller every way and has legs to bring

the top nearly level with the outer. Between the two walls is the water heated by steam from the boiler, and by no means can the wax become over heated. The inside tank is divided



COMB FOUNDATION.

into three compartments by two sheets of tin at the bottom of which are three or four holes an inch in diameter. The solid wax is placed in the two outside divisions and the melted material flows through the holes into the centre which contains nothing but liquid wax.

BOARDS FOR SHEETING.

The sheets of wax are procured by dipping planed boards into the hot wax, of the length and width desired and half an inch in thickness. We use but two sizes each three feet long and nine and twelve inches wide. The boards should be of clear pine, absolutely free from knots and pitch streaks. They should be soaked in cold water for from twelve to twenty-four hours prior to use; water will not permeate knots or pitch streaks hence the unsuitability of such. I have known several who soaked their dipping boards in hot water but I cannot say that it is the better way.

Having soaked the boards it is necessary to warm them through and this is done by dipping them quickly into the hot wax and then in cool water continuing until board and wax together are an inch or thereabout in thickness. The steam generated next the board makes the removal of the wax easy.

SHEETING WAX.

With boards thus prepared, wax melted and kept liquid at from 160 ° F.