

This plan was recommended to us by Mr. Pettit of Belmont, Ont.

No. 2.—Two colonies were put into the cellar, with the tops and bottoms left on, just as they were brought in out of the bee yard. These are to be watched for dampness, to be weighed in spring, and notes are to be kept of their work during the following season.

No. 3.—One colony was placed in a packing case in the cellar and packed with four inches of dry sawdust all round the hive; brood chamber raised from bottom board by four small 1-inch blocks; wooden cover of hive replaced by a 4-inch chaff cushion, and the packing case filled up with four inches of dry sawdust, above the cushion. For ventilation a small shaft, of the same size as the opening to the Langstroth hive, leads from the hive to the outside of the packing case. Case placed on top of another case three feet high, in the stone cellar beneath dwelling house.

No. 4.—This experiment is very similar to the last, but no ventilation is provided. The bottom board of the hive was removed and hive was stood on four blocks $1\frac{1}{2}$ inches high, one under each corner, placed right on the bottom of the packing case, which was then filled in with dry sawdust, four inches all round and above, as in experiment 3, except that no shaft for ventilation was cut through to the outside of the packing case; but immediately beneath the hive there is a narrow crack between the boards of the packing case, not $1\frac{1}{16}$ of an inch wide. The packing case itself is raised about an inch off the earthen floor in the stone cellar by means of small blocks.

No. 5.—One colony was placed in a packing case large enough to allow of 4 inches of cut straw and chaff being packed all round the hive, and the box was left out of doors in a sheltered place on the ground in the yard. Bottom board loosened and 1 inch blocks put at each corner between bottom board and brood chamber. Wooden cover also replaced by 4 inch chaff cushion, and box filled with 4 inches of chaff and cut straw. No ventilation.

No. 6.—One colony treated exactly above but with ventilating shaft from entrance to the outside of the case which is placed 3 feet from the ground on the top of an empty case.

JOHN FIERER.

REPORT UPON FURTHER EXPERIMENTS WITH CERTAIN BRANDS OF "FOUNDATION."

By FRANK T. SHUTT, M.A., F.I.C., F.C.S.

Last year a series of experiments was undertaken in order to ascertain the relative ease with which various brands of "founda-

tion" were drawn out and used by bees in building comb. The results of these experiments and deductions therefrom were published in the report for 1891 (pages 220 to 223.) During the past summer this investigation has been continued, and the results obtained are now presented. In addition to the "foundations" tested last year, several new brands were put under trial. The relative weights of wax deposited when the honey was gathered from clover and buckwheat respectively, were also determined. The series also is more complete, inner and outer sections in all cases being examined.

The plan of procedure was as follows:—The frames were filled with the various foundations under experiment and of which the exact weight of two inches square had been taken. At the close of season the cells were opened by the careful removal of the cap, and the honey extracted with the extractor. The last traces of honey were got rid of by successive exhaustions with cold water. After allowing the comb to thoroughly dry by exposure to the air, an area of two inches square was cut from the centre of the section. This method is practically the same as that used last year, with the exception that the caps of the cells only were removed. In the season of 1891 the cells were opened by shaving off the surface of the comb, a plan that necessarily involved the loss of more or less of the cell wall.

(TO BE CONTINUED).

Mr. J. B. Hall, of Woodstock, Ont., is known as Canada's comb honey chief. In 1893 he exhibited 22,000 pounds of honey at the Toronto Fair, and 11,000 pounds of it was comb honey in sections. Mr. H. produced and sold in one year \$30,000 worth of honey. Out of his honey crops he built a large two-storey brick house, and banked money enough to carry him over all the poor honey seasons. Mr. Hall is very popular with all the bee-keepers, and being such a successful specialist in bee-keeping, his opinions are always valued highly in bee matters. After saying all this (which we learned through one of our good Canadian friends)—would you believe it?—this same J. B. Hall won't open his head except he's driven to it in a convention discussion! My, but he *can* talk! but on paper he's so very mum (for a Canadian), that it seems strange. He's a good man though, and we liked him very much when we had the pleasure of meeting him at the Toronto convention last September.—American Bee Journal.