

PRACTICAL BEE-KEEPING.

BY D. A. JONES.

PAPER IV.—CONTINUED.

WAX, COMB AND FOUNDATION.

FOUNDATION SAGGING.

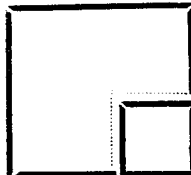
Unless foundation is made heavier than is profitable it will usually sag and the causes of this sagging are heat and the weight of the bees. This is especially the case with deep frames. Naturally the higher the temperature the less weight will be required to stretch it, and when the bees cluster on it before it is drawn out stretch it must. To avoid this sagging some apiarists use fine wire to support the sheet, but I know of no simpler way than that given by Mr. G. W. Demaree on p. 307, vol. IV, CANADIAN BEE JOURNAL: "I have discovered a new plan to so strengthen sheets of fdn. that they will hold up swarms without the assistance of the wire nuisance. If you will cut a sheet of fdn. in two and then lap the edge about one quarter of an inch and weld the edges together with a stiff putty knife in the same way that the sheets are secured to the top bars by the mashing process, the thick rib in the centre will prevent the sheet from stretching or sagging and the bees will work right on over the rib and make the combs as perfect as if no thick rib was in the way."

FASTENING FDN. IN FRAMES

Hot wax dropped on cold wood may be easily peeled off, cold wax dropped on warm wood will melt slightly and incorporate with the wood, adhering tenaciously. This is one thing to keep in view in placing foundation in frames. Have the frames warm, either from the heat of the sun or otherwise, lay the wax on the top bar, press it first in the centre and then at the ends, when two long strokes with a thick, rounded wooden knife will cause it to adhere. Mr. G. M. Doolittle uses melted wax as a cement, applying it to the top bar and edge of fdn. with a small brush. Mr. R. McKnight follows a somewhat similar plan. On the underside of the top bars of most frames a groove is made

with the saw. After fixing the foundation in this groove he runs melted wax on each side until the cut is filled, keeping the frames warm during the work by contact with a hot brick.

A simpler way of fastening brood foundation in the frame is by the use of a properly constructed top bar. This latter is usually seven-eighths inch square between the shoulders. Cut out one quarter as shown in the cross-



section herewith, preserving the cutting. Then prepare a board one-half of an inch thick and of the proper inside dimensions of frame, which tack on the table or work bench. Place the frames to be filled over this board, when the bottom inner edge of the top bar will be just even with the surface of the board. On this lay the sheet of fdn. with the top flush against the edge of the top bar. Tack the cutting back into its original position with three three-quarter inch wire nails and the fdn. is firmly and truly fastened.

WIRING FRAMES.

A majority of the foremost American apiarists wire all their brood frames. Unless sent out by the manufacturer already punched small holes are made with a bradawl in the top and bottom bars from two to three inches apart. Through these holes is threaded a small tinned wire (No. 30). The fdn. is laid on a board made to fit the inside of the frame, the wired frame placed over it and the wires embedded in the wax by means of a tin device made for the purpose. This should be done in a well warmed room. The wire is sold in spools from 1 oz. to one pound. There is nothing in this operation apparently difficult and yet it is one thing which