

BILL OF LUMBER FOR ONE CASE.

Cedar, all smooth—

Body, 2 pieces, $\frac{3}{4}$ x $9\frac{1}{4}$ x $26\frac{1}{2}$; half-width rabbet $\frac{3}{4}$ inch deep along upper edge.

Body, 2 pieces, $\frac{3}{4}$ x $9\frac{1}{4}$ x $19\frac{1}{4}$; half-width rabbet $\frac{3}{4}$ inch wide across both ends; distance between edges of rabbet, $18\frac{3}{4}$ inches.

Bottom, 3 pieces, $\frac{3}{4}$ x $6\frac{1}{2}$ x 34.

Cover, 3 " $\frac{3}{4}$ x $7\frac{1}{4}$ x 20.

Fir, all smooth—

Bottom blinding-cleats, 3 pieces, $\frac{3}{4}$ x 2 x $19\frac{1}{2}$.

" thin cleats, 1 piece, $\frac{3}{4}$ x 4 x $19\frac{1}{2}$.

" " " 2 " $\frac{3}{4}$ x 4 x $23\frac{1}{4}$.

" thick " 1 " $\frac{1}{2}$ x $\frac{3}{4}$ x $19\frac{1}{2}$.

" " " 2 " $\frac{1}{2}$ x $\frac{3}{4}$ x $26\frac{3}{4}$.

Cover, sides, 2 pieces, $\frac{3}{4}$ x 2 x $21\frac{1}{4}$.

" " 2 " $\frac{3}{4}$ x 2 x $27\frac{1}{2}$.

Bridge, 1 piece, $\frac{3}{4}$ x 3 x $18\frac{1}{4}$.

Extension hive, 2 pieces, $\frac{3}{4}$ x 3 x $10\frac{1}{4}$.

" " 2 " $\frac{3}{4}$ x 3 x $27\frac{1}{4}$; half-width rabbet $\frac{3}{4}$ inch across both ends.

To assemble, begin with the bottom board, which is $19\frac{1}{2}$ x 34. Lay the pieces face down and nail on the blinding-cleats. As nails have a poor catch in cedar, turn board over and nail also from upper side. Next, across one end fasten the short $\frac{3}{4}$ -inch piece of fir, then the other two of the same thickness along the sides, butting them tight against the cross-piece. These three pieces form the support of the ordinary hive in winter, and determine the height of the winter entrance, which is sufficiently low to keep out mice.

The $\frac{1}{2}$ -inch strips are next fastened into position on top of the thin pieces. These thicker strips form the support of the case and in addition determine the height of the summer entrance at $\frac{3}{4}$ inch.

The body of the case may be next assembled, each corner being nailed both ways; at least twenty-four nails being needed for each body. Place the case on the bottom board and you will gain some conception of what you are making. By setting an empty hive inside the case you will gain a still better idea.

The cover comes next. It is of the telescope variety, with rather deep sides, but these provide scope for lots of packing over the frames, which is something the bees need in British Columbia on account of the cool nights. When made correctly the sides will have a little free play all round, but if a strip of packing be permitted to hang over the sides the cover will jam tight, and be safe in even high winds. The sides meet with ordinary butt-joints, but after nailing they should be strengthened with a strip of zinc or galvanized iron, such as is used to fasten shingles in the bundle. A piece 6 or 8 inches long bent round each corner and fastened with short nails will hold everything tight in all weathers. The extension should be next assembled.

Three coats of paint, according to instructions given elsewhere, should be applied to every part that may be exposed to the weather. Then the roof and sides of the cover should be covered with a stout roofing-paper, this being held in position with narrow strips of thin or half lumber. For appearance' sake it ought to be also painted white. A cheap grade of canvas will do just as well, provided it be given three coats of paint. At a push one may use oilcloth, laid oil-side down, and painted.

To prepare bees for the winter, set the hive containing the bees, but without cover, in the centre of the bottom board; then put the extension down over it, and slip the entrance bridge into position between the hive and front of the case, adjusting matters so that all three come in contact. Next, place the big case on top of