Effective and Simply Made Bee Escape Board

TO ensure the quick and convenient removal of supers of capped combs from hives during the honey-harvesting period it is necessary first to remove all bees from the supers to be harvested. This can be accomplished in one of three ways: By brushing or shaking the bees from the combs, by using a chemical repellant, with danger of tainting the honey, or by the bee escape boards. The use of bee escape boards is by far the most satisfactory method and is the one most generally used. In this article D. Roberts, Apiary Instructor, Department of Agriculture, Auckland, describes a simple home-made escape board used by Mr. I. G. Muncaster, of Panmure, Auckland.

APIARISTS keeping more than a few colonies of bees will find the use of brushing or shaking in clearing supers too laborious and slow to be of much practical value. This method also entails a great deal of disturbance to colonies at critical periods and unless most carefully carried out is liable to lead to robbing.

Though the fumes from a cloth moistened with a mixture of pure carbolic acid and water are very effective in driving bees out of the supers, the risk of tainting the honey is so great that the use of this chemical as a repellant must be condemned. An efficient chemical repellant which will not introduce undesirable taints into honey has yet to be developed, and beekeepers whose honey is to be marketed for public consumption should realise that the risk of acquiring taint, inherent in the use of chemicals, must constitute a grave threat to maintenance of sales. Honey is a pure, natural food and should not be offered for sale as a foodstuff when its natural qualities are impaired by the presence of foreign flavours. Honey so tainted would be rejected for export.

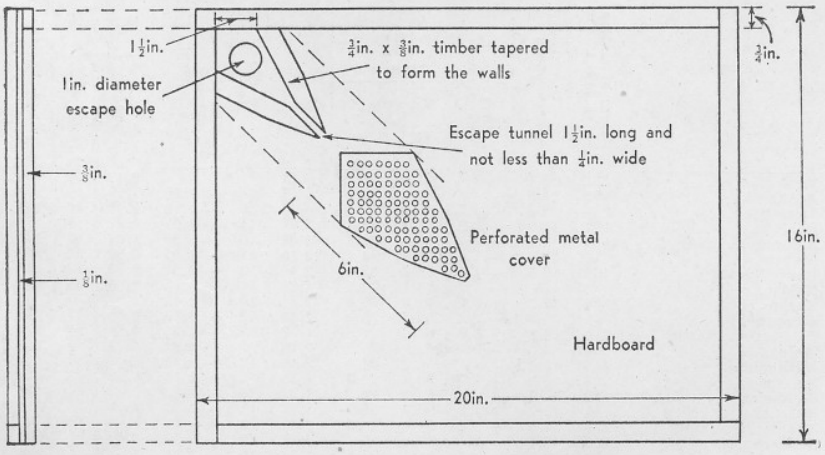
Simple Bee Escape Board

The bee escape board in its various forms is the most satisfactory method yet devised of clearing bees from the supers. The escape used by Mr. Muncaster has proved to be most effective and is simple to make and use. As no springs or other restrictive devices are used in the escape, there is no tendency for blockages to occur and therefore no necessity to use more than one escape vent per board. Experience has shown these boards to be capable of clearing up to 4 supers on a single hive in 24 hours.

As with all other escapes it is of course necessary to ensure that neither the queen nor any brood remains in the supers to be cleaned, otherwise the bees will not leave. Care should be taken when placing the escape in place to see that the exit is not blocked by burr comb built in the super underneath.

Construction of Escape Board

The body of each board is made from a piece of hardboard 16in. x 20in. around the edges of which on both sides of the hardboard is nailed a wooden framework constructed from ¾in. x ⅜in. stock. A 1in.-diameter hole is bored in one corner of the hardboard, the edges of the hole being at least ½in. clear of the frame. Two pieces of wood each 4½in. long x ¾in. wide x ⅜in. thick and tapered to a point at one end are then fixed one on each side of the hole so that the tapered ends come to within not less than ¼in. of each other. This forms the exit for the bees. An ordinary lead pencil will serve very well as a gauge for measuring the exit space. The opposite ends of the tapered pieces should be cut at an angle of approximately 60 degrees to allow a neat fit against the frame. The space formed by the 4½in. strips is then covered with perforated metal and this forms the body of the escape. Providing that the outside edges of the escape boards are well painted the hardboard will last indefinitely.



Details of the bee escape board.

Materials Required

The materials required for each escape board are:—

1 piece of hardboard or similar material 16in. x 20in.

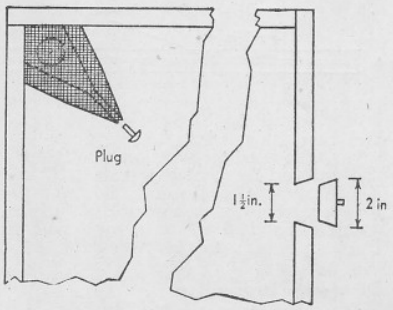
13 lineal feet of ⅜in. x ¾in. timber.

1in. nails, tacks, screw eyes.

1 piece of perforated metal 6in. long x 3½in. wide.

Alternative Use of Escape Board

The cutting of a tapered slot (see next diagram) in the frame of the escape will allow an escape board to



Escape board modified for use as division board.

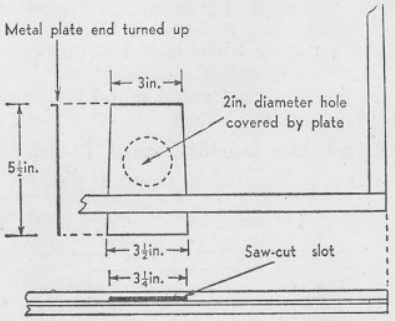
be used as a division board when a hive is being split for requeening, increase, or the adoption of the two-queen system. The tapered piece cut out should not measure less than 1½in. on the inner end and is used as a plug to block the entrance when the board is again used as an escape board. To prevent loss of the plug when using the board for division purposes small screw eyes should be fixed in the end of the plug and in the edge of the frame respectively and the ends of a piece of string or frame wire attached to each screw eye.

When the board is used as a division board the exit of the escape should be blocked with a small plug and a piece of wire gauze fixed with drawing pins over the entrance hole. This will prevent the queens making contact and possibly damaging one another. The 1in. gauze-covered hole will enable both colonies to attain the same odour and will thus assist toward successful uniting. Weak upper colonies will also benefit by the warmth of the colony underneath, which will rise through the screened entrance hole.

Further Modification

A further modification which can be made easily during construction of the board is the drilling of a 2in.-diameter hole, which should be not more than ¾in. out from the inner edge of the frame and midway in the longer (20in.) side. A piece 3½in. long and 1/16in. deep is cut out of that section of the frame which will be placed alongside the hole to form an entrance. A strip of sheet metal 5½in. long tapering from 3½in. to 3in. wide is then cut. When the board is assembled the piece of sheet metal, with the 3in.-wide end inward, is inserted in the slot formed

by the cut in the frame. The metal then forms a sliding cover for the hole which can be opened and closed at will without disturbing the bees. When the metal slide is fitted the inner end



should be bent upward about ⅛in. This will prevent the slide from falling out and being lost when in the open position. The wedging action provided by the tapered form of the slide will keep it secure when closed. So modified, the board is a very useful adjunct when it is desired to return wet extracting combs to the hives for cleaning up.

Cleaning Procedure

The procedure adopted by Mr. Muncaster for cleaning combs is to place a queen excluder over the top super of the hives to be used, which should be strong colonies at least two storeys high. The escape board with the slide fully closed is then placed immediately on top of the excluder and the supers of wet combs stacked on top. The lid is replaced and the slide opened to its full extent. One week has been found sufficient for the cleaning of up to 4 supers of wet combs. When the combs are clear the slide is closed. The bees in the supers will then use the escape to join the colony below. Twenty-four hours is generally sufficient for full clearance of the bees from the supers, but if the work is being done late in the season, when there is little or no brood, up to 3 days may be necessary, as the bees are then sometimes very slow to leave. With this method there is little disturbance to the apiary when the combs are put out and the storing of patches of honey in the empty combs is reduced to a minimum.

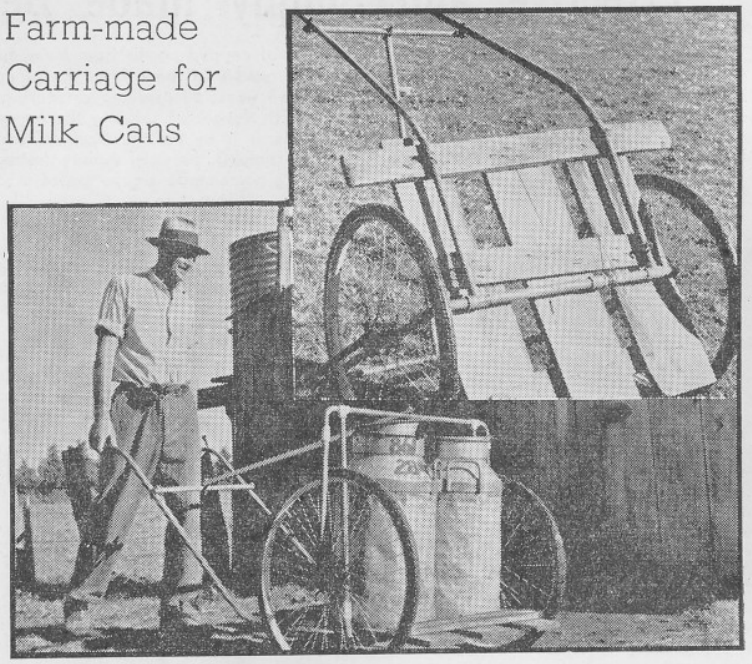
Pigeon-pox and Fowl-pox Vaccines

Pigeon-pox and fowl-pox vaccines have hitherto been available from the Department of Agriculture Animal Research Station, Wallaceville. A charge has been made by the Department for pigeon-pox vaccine, which was imported from the United Kingdom, but the fowl-pox vaccine was distributed free. The latter was prepared at the Animal Research Station and has been issued for use by Departmental officers for a period during which field trials have been carried out to test the efficiency of this vaccine.

At the request of the Department the Trentham Veterinary Laboratory Ltd., P.O. Box 29, Upper Hutt (telegrams, "Biovax", Upper Hutt), has undertaken to prepare and distribute both of these vaccines to poultry producers.

Information about the method to be used for fowl-pox vaccination, the class of stock to vaccinate, and precautions which must be taken were given in an article in the "Journal" for June. A poultry farmer who is in doubt whether he should use fowl-pox vaccine should consult the local Poultry Instructor or write to the Veterinarian (Poultry), Department of Agriculture, Box 3004, Wellington.

Farm-made Carriage for Milk Cans



[*Sparrow Industrial Pictures Ltd. photos.*

AFTER he had ricked his back trying to man-handle heavy milk cans Mr. A. J. Riley, Horsham Downs, Waikato, spent his convalescence in his workshop making the carriage illustrated from a pair of second-hand bicycle wheels, ½in. and ¾in. piping, and a few planks. The bottom of the platform clears the ground by about 4in., so there are no high lifts on to it. The carriage shown was made for four 15-gallon cans; for 20-gallon cans the vertical pipes could be extended 4in. With its low centre of gravity and perfect balance the carriage loaded with four full cans can be handled easily, and bringing in the empty cans from the gate is equivalent to child's play. Mr. Riley finds six concrete posts or two bags of fowl feed an easily managed load. The design could be improved for the carriage of heavier loads by the use of rubber-tyred wheelbarrow wheels in place of the bicycle wheels.

METEOROLOGICAL RECORDS FOR JUNE

Station	Height of station above M.S.L. (ft.)	Air temperatures in degrees (Fahrenheit)				Rainfall in inches					Bright sunshine hours
		Approx. mean	Difference from normal	Absolute maximum and minimum		Total fall	No. of days of rain	Difference from normal	Maximum fall		
				Maximum	Minimum				Amount	Date	
Kerikeri	201	50.1	— 1.8	67.0	30.1	9.02	18		3.17	10	109.5
Auckland	160	51.5	— 1.8	66.5	31.9	3.53	14	— 1.89	1.50	10	140.1
Tauranga	10	48.2	— 1.5	65.0	29.7	4.15	9	— 1.19	2.98	10	151.1
Ruakura	131	44.9	— 2.6	64.3	23.1	2.22	11	— 2.59	0.82	10	135.2
Rotorua	969	44.6	— 1.2	65.2	27.8	3.02	6	— 3.36	1.69	10	142.9
Gisborne	12	47.4	— 1.6	60.6	31.2	2.10	17	— 1.91	0.52	22	102.0
New Plymouth	160	48.5	— 1.5	60.2	33.5	2.49	13	— 3.61	0.93	17	145.6
Napier	5	47.2	— 1.2	64.1	29.2	1.89	11	— 1.15	0.86	23	149.1
Karioi	2125	40.7	+ 0.2	62.0	23.0	2.31	10	— 2.46	0.50	17	
Wanganui	72	45.9	— 2.4	67.2	29.3	2.33	10	— 0.97	0.69	17	125.6
Palmerston North	110	44.8	— 1.9	66.8	27.3	1.92	13	— 1.58	0.50	10	122.7
Waingawa	350	43.6	— 2.0	65.0	25.5	2.53	17	— 1.08	0.72	10	117.6
Wellington	415	45.8	— 2.1	58.3	34.2	2.48	13	— 1.85	0.41	16	102.4
Nelson	24	45.0	— 1.2	60.4	29.7	1.33	6	— 2.16	0.42	10	173.5
Blenheim	12	42.8	— 2.6	61.0	24.9	1.33	5	— 1.08	0.51	10	178.1
Hokitika	12	42.8	— 1.8	57.7	25.9	3.19	11	— 5.96	1.40	15	151.7
Hanmer Springs	1225	34.6	— 5.2	54.0	15.0	2.36	10	— 1.09	0.49	11	102.6
Christchurch	22	40.1	— 3.1	57.6	25.2	2.18	12	— 0.36	0.40	20	139.9
Ashburton	323	39.6	— 1.6	56.4	23.0	1.34	10	— 1.13	0.50	20	148.0
Timaru	56	39.1	— 3.3	57.0	24.6	0.64	6	— 1.15	0.23	16	154.9
Alexandra	520	34.7	— 3.1	52.0	21.9	0.49	4	— 0.27	0.30	15	120.4
Taieri	80	40.0	— 1.8	57.9	25.0	2.19	12	— 0.05	0.92	15	98.7
Invercargill	32	40.7	— 1.5	54.0	25.0	2.90	15	— 0.85	0.46	19	74.9