

Preserving Hive Parts with Paraffin Wax

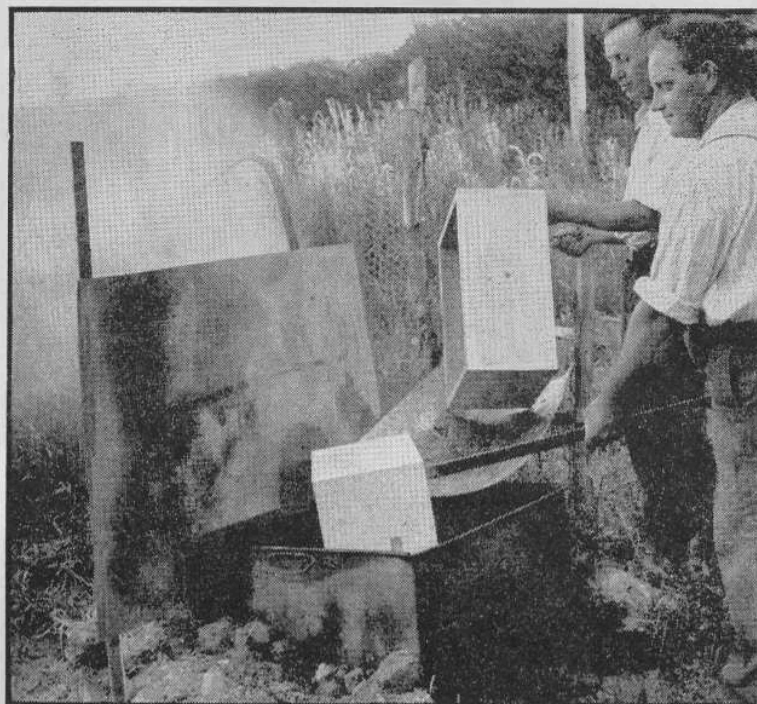
By S. LINE, Apiary Instructor, Department of Agriculture, Invercargill

THE preserving of timber by some means that is neither very costly nor offensive to the eye and yet will ensure durability seriously concerns every beekeeper with more than a few hives. The type of coating requires some forethought, because any change to another type of preservative or paint means having hives of odd coloured material, and sometimes it is unsatisfactory to apply a new substance to previously treated timber.

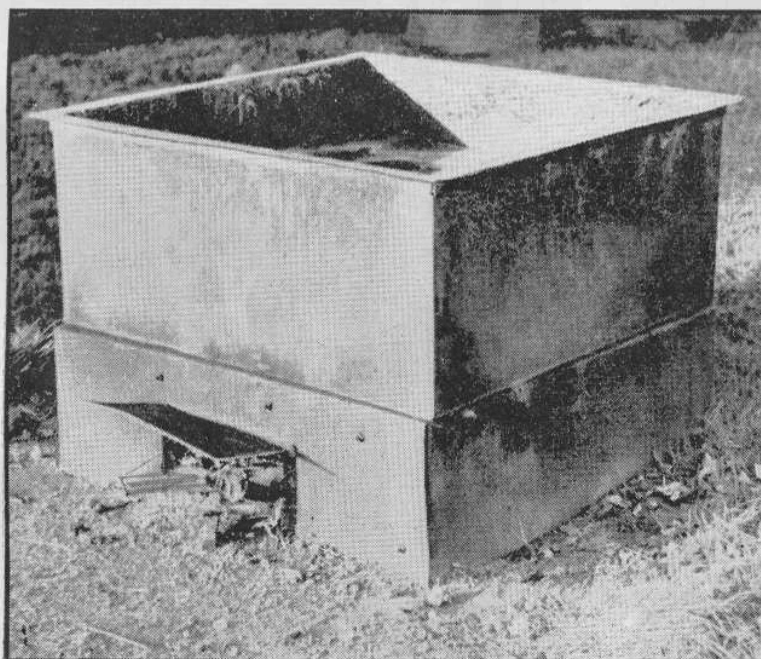
AS most of the wood available today is less durable than that obtainable in earlier years, a good preservative is required. Where hives are in such numbers that they are regarded as part of an industry or plant there is little time for brushing on an expensive paint merely for artistic reasons, but at the same time an apiary which gives a poor impression and has a drab and unattractive appearance becomes a poor advertisement and can have a depressing effect. In addition, it sometimes will not get the same attention as one which has a more pleasing appearance.

Use of Wood-stain

Hive boxes dipped in paraffin wax develop a blotchy shade varying from yellow, to grey, to brown, and if the wood could be stained with some pigment that could be quickly brushed on before dipping, the general effect would be better. Each beekeeper will have his own idea as to what is an attractive or tidy colour for hives, and



Hive parts being dipped in paraffin wax and drained. A protective shield may be seen at the back of the trough.



A waxing tank 4ft. square mounted over an iron fire box.

once a colour is decided on experiments would be worth while to find a pigment that could be diluted with either water or turpentine and quickly brushed or sprayed on to supers arranged in columns to present a large working surface. A uniform brown colour could be easily obtained by the application of a wash of creosote before dipping. Creosote is sold at from upwards of 9d. per gallon in bulk.

After the wood has stood for 2 days to allow the stain to dry in, the supers can be dipped in hot paraffin wax and no further odour will be present. Creosote should not be used alone on wooden hive parts as the odour from it is inclined to taint badly any honey subsequently stored in the hives. There are several brown wood-stains used in furniture work that may also be used, and a water-stain can be made quickly by stirring into 1 quart of water 2 teaspoonfuls of condy's crystals (potassium permanganate), which until it dries looks red, but soon changes to a pleasing brown. There is also a green branding ink obtainable which can be considerably diluted, and a blue stain is marketed by a petroleum company.

The water-stains and the creosote remain fixed and do not change when immersed in hot wax. Timber that is to be dipped in paraffin wax should be reasonably dry, for if moisture is imprisoned within the joints of bottom boards or within the wood, it can start



An apiary in Southland subjected to summer heat and winter snows. The supers shown were treated with paraffin wax 20 years ago and are still in good condition.

dry rot. Wood from the mills is often wet, and boards should be arranged so that there is air space between them, but they should not be placed in strong sunlight.

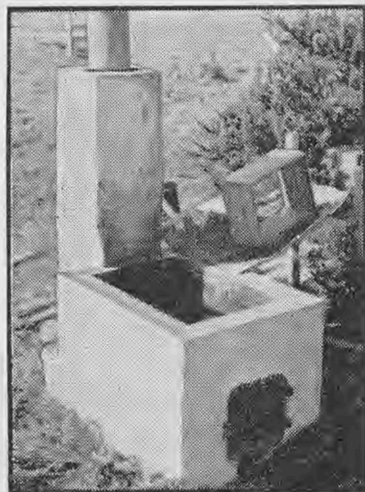
Many beekeepers today have a hot-room for warming honey, and this may be used as a quick means of drying moisture out of supers that are to be treated with paraffin wax. The hot-room should not in this case be tightly closed, as the moisture laden air needs to escape. A fungus may develop on the timber if this is not done.

The type of trough to be used should be large enough to hold 2 or 3 supers resting on their sides in about 4 in. of hot wax. If the trough is large enough, each super can be revolved from one side to the next, each side being soaked for about 10 seconds before turning, and no time is wasted. The trough itself should be of heavy iron and riveted wherever there is to be a joint, as solder would not stand

up to the heat. If the trough is raised from the ground by bricks 6 in. to 9 in. high, the fire will be effective, but the dipping should be in a sheltered place so that supers lifted from the hot liquid on to a sloping sheet of tin will be able to drain without the wax congealing on the surface and leaving the wood greasy or slippery. Only a warm, sunny day should be chosen for the dipping of hive parts in paraffin wax. As a precaution against the fire getting out of control some wet sacks should be kept nearby ready for instant use. Where a metal trough is built into concrete great heat is easily attained and the fire is always completely under control. Paraffin wax is obtainable from the main petroleum stores at from 8½d. to 9½d. per pound in bag lots or in greater quantities.

Because the boiling point of paraffin wax (about 680 degrees F.) is much higher than is normally required for sterilising, it is suitable for re-dipping supers and bottom boards that have been contaminated with foul-brood. At approximately 316 degrees F. white vapour rises from the surface of the wax, and this is a suitable temperature for immersing wood, but when supers have been in contact with foul-brood they should remain 10 minutes in the trough. A new super absorbs about ½ lb. of wax, but where supers are re-dipped for sterilising very little wax is absorbed. Care should be taken not to heat the wax to near burning point, as at this temperature vapour is given off which may ignite if it comes near a naked flame. However, when supers are dipped and drained under really hot conditions so that they drain to look quite dry there should be no trouble with them slipping when placed above each other as hives. Also they could be painted later with an aluminium paint (containing a bitumin base) if the apiary was to be near a railway line or where there was a possibility of grass or scrub fires.

In Southland supers dipped in hot wax 20 years ago are still sound and have warped less than those treated with the more conventional paints.



A wax trough surrounded by concrete and over a fire box. At right is a treated super draining on a sheet of iron.

Show Dates

THE following are dates and venues of A. and P. shows to the middle of January:—

NORTH ISLAND

October

- 16 and 17 October—Poverty Bay A. and P. at Gisborne.
- 21 and 22 October—Hawkes Bay A. and P. at Hastings.
- *29, 30, and 31 October—Waikato A. and P. at Hamilton.
- 30 and 31 October—Waipara and East Coast A. and P. at Carterton.

November

- *6 and 7 November—Manawatu and West Coast A. and P. at Palmerston North.
- 7 November—Tikoroa A. and P. at Tokoroa.
- 11 November—Thames Valley A., P., and H. at Te Aroha.
- 13 and 14 November—Whangarei A. and P. at Whangarei.
- *13 and 14 November—Wanganui A. and P. at Wanganui.
- 14 November—Waihi A. and P. at Waihi.
- *20 and 21 November—Egmont A. and P. at Hawera.
- 21 November—Bay of Islands P. and I. at Waimate North.
- 26, 27, and 28 November—Auckland Metropolitan A. and P. at Auckland.
- 27 and 28 November—Stratford A. and P. at Stratford.
- *28 November—Kaikohe A., P., and H. at Kaikohe.

December

- *5 December—Helensville A. and P. at Helensville.
- 5 December—Hauraki A. and P. at Paeroa.

January

- 1 January—Nuhaka A. and P. at Nuhaka.
- 4 and 5 January—Rotorua A. and P. at Rotorua.
- *15 and 16 January—Waioara County A. and P. at Waioara.
- 16 January—Marton District A. and P. at Marton.

SOUTH ISLAND

October

- *17 October—Ellesmere A. and P. at Leeston.
- *23 and 24 October—Marlborough A. and P. at Blenheim.
- 24 October—Northern A. and P. at Rangiora.
- 31 October—Amberley A. and P. at Amberley.
- *31 October—Timaru A. and P. at Timaru.

November

- 5 November—Ashburton A. and P. at Ashburton.
- *11, 12, and 13 November—Canterbury A. and P. at Christchurch.
- *18 November—North Otago A. and P. at Oamaru.
- 20 and 21 November—Nelson A. and P. at Nelson.
- 21 November—Waimate A. and P. at Waimate.
- 21 November—West Otago A. and P. at Kelso.
- 21 November—Taieri Agricultural Society at Outram.
- 24 and 25 November—Otago A. and P. at Dunedin.
- 28 November—Motueka A. and P. at Motueka.
- 28 November—South Otago A. and P. at Balclutha.

December

- 1 and 2 December—Gore A. and P. at Gore.
- 5 December—Tokomairiri A. and P. at Milton.
- 5 December—Wyndham A. and P. at Wyndham.
- 12 December—Otago Peninsula A. and P. at Portobello.

January

- 9 January—Blueskin A. and P. at Waitati.
- 16 January—Waikouaiti A. and P. at Waikouaiti.

* The Department of Agriculture exhibit will be staged at this show.