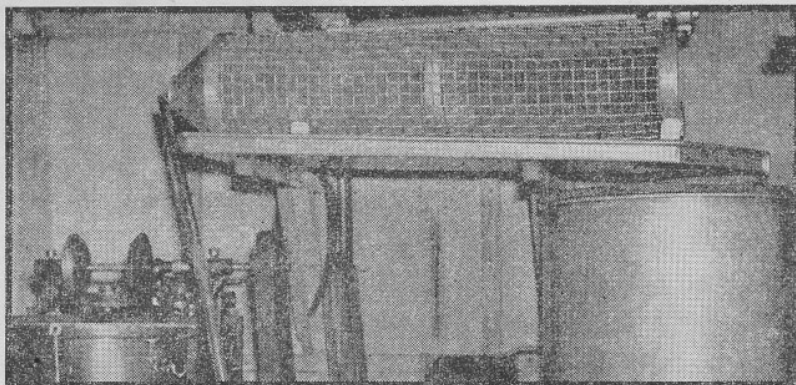


Self-clearing Honey Strainer

STRAINING heavy-bodied honey has always been a problem in the Auckland district and beekeepers who have not the facilities for warming the combs before extraction have great difficulty in keeping the strainer free from blockage; unless some form of heat is used this trouble will persist to some extent with all strainers. In this article D. Roberts, Apiary Instructor, Department of Agriculture, Auckland, describes a honey strainer capable of handling even heavy-bodied manuka honey, when warm from the hive, very satisfactorily and heated honey with the greatest efficiency.

IN the production of extracted honey efficient straining is of the greatest importance and commercial beekeepers have tried many methods of straining in their endeavours to ensure that all foreign matter and wax particles are completely removed. If warming of honey before or after extraction is not possible, clogging of the strainer mesh is frequent and delays in extracting while the straining material is cleaned or replaced are a regular occurrence.

The strainer described in this article was designed by Mr. G. B. Sharp of Matakana, Northland, with the aim of obviating clogging and has proved highly efficient. The capacity of the strainer is sufficient to deal with seven to eight supers of manuka honey averaging 45lb. a super per hour, a daily total of 1½ tons, and this is the quantity handled regularly by Mr. Sharp's strainer.



Strainer mounted on wooden cradles above the tray.

The success of this design is attained through the large straining area provided and in the method of use. The strainer is cylindrical and 4ft. long by 1ft. in diameter, providing a straining surface of approximately 12 sq. ft. The strainer is supported on two wooden cradles which rest in a tinned steel tray 5ft. long by 1ft. 6in. wide by 3in. deep. The tray tapers inward for the last foot of its length to an opening 2½in. wide. The tray and strainer are given sufficient inclination to cause a fall of 3in. in the length of the tray.

Use of Strainer

Honey is pumped from the extractor into the open end of the strainer, whence it flows through the mesh and into the tray, then running down the tray and out through the opening at the tapered end. A further small strainer of the basket type is suspended within the honey tank to remove any material that may be caught in the honey while it is passing down the tray. If the portion of the wire mesh in use tends to become blocked, the strainer is turned by hand only sufficiently to present a fresh surface to the honey. This limited movement is continued until the whole of the straining surface has been used, and then the strainer is turned not less than one half turn at a time by a rapid movement intended to carry any sludge to the top of the straining cylinder. The sudden cessation of movement will cause the sludge to break loose and fall to the bottom surface of the strainer, where it does not hold up free straining for some time until it again works into the mesh of the strainer when the turning action is repeated.

At the end of the day the strainer is removed from the wooden cradles which support it and stood open end downward in a bucket or similar container, when any honey remaining will quickly drain out. The unit is then easily hosed clean, the whole process taking only a few minutes.

Construction of Strainer

The materials required for building the strainer are:—

1 piece of brass gauze 40 to 50 to the inch, 4ft. long by 3ft. 6in. wide.

1 piece of 6-gauge tinned steel wire netting 4ft. long by 3ft. 8in. wide. (lin.-mesh wire fencing is very suitable.)

1 tinned steel end cover 13in. in diameter with flange turned up 2in. deep on the inner side.

1 tinned steel conical end cover to taper to an opening of 4in. in a length of 5in. This tapered cover also has a flange of 2in. depth on its inner end.

3 strips of sheet brass, one 2in. wide, 3ft. 6in. long, and two 1in. wide by 3ft. 6in. long. The larger strip is soldered to the centre of the gauze cylinder to prevent chafing; the two narrow pieces are fixed to strengthen the ends where they are soldered to the end cover.

1 tinned steel tray 5ft. long which is 1ft. 6in. wide for 4ft. of its length and tapers to an opening 2½in. wide in the last 1ft. of length.

2 pieces of 3in. x 2in. timber from which arcs are cut to form cradles for supporting the strainer in the tray.

Unless beekeepers possess some knowledge of sheet metal work, the services of a plumber or sheet metal worker will be necessary. The piece of brass gauze is first formed into a cylinder 4ft. long and 1ft. in diameter. It is then soldered together carefully at the join so that there is no leakage of honey. The three strips of sheet brass are sweated on to the cylinder, the 2in. wide one in the middle and a 1in. strip at each end, to assist in ensuring that the cylinder retains its shape. The central piece also serves as a chafing strip. Another cylinder is now made from the lin.-mesh wire netting. This should be made of sufficient diameter to fit freely over the gauze cylinder and at the same time be a neat fit inside the flanges of the end covers. This cylinder of netting is used to tie the end covers securely together and also to act as a support to prevent undue sagging of the strainer gauze. The end covers are then made and sweated into place on the two cylinders. Assembly of the strainer will be simplified if in the construction of the tapered end cover the conical section is made separately from the flanged portion, the conical section being affixed when all other work of assembly is complete. The tray is tapered to a 2½in. outlet so that the honey can be directed into baffles leading into the honey tank, thus helping to prevent the accumulation of air bubbles.

