

SEPTEMBER 2012

Surrey Beekeepers Association

CROYDON DIVISION

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Secretary Joyce Atkinson 0208 657 2817

www.croydonbeekeepers.co.uk



DATES TO NOTE FOR SEPTEMBER

SUNDAY 2 nd.

BARBECUE

Details of this were in last months newsletter, hopefully all those intending to come will have let David Shepherd know by now since he will NOT be able to provide for anyone who has not booked. If you do decide to come without having booked you will be very welcome but will need to bring your own refreshments.

SUNDAY 9 th.
SUNDAY 23 rd.

APIARY MEETINGS

The usual afternoons, 2-00p.m. for those following David Sepherd's introductory illustrated talks and hive openings afterwards.

SATURDAY 15 th.

SURREY TRAINING DAY

The theme for this is WINTER
There may still be places available, Mark Stott can provide details.



SATURDAY 22 nd.

CROYDON HONEY SHOW

A copy of the schedule is with this newsletter, PLEASE let Joyce Atkinson our show secretary have your entry form by the 17 th. - there is a charge for late entries, - there are many classes to choose from, several do not need honey, - even if you do not enter any exhibits COME, this is always a pleasant event.

SATURDAY 27 th.

SURREY TRAINING DAY

The second of these on microscopy, this is now fully booked BUT another will be arranged so if you are interested contact Mark Stott.



OCTOBER 25 th. to 27 th. NATIONAL HONEY SHOW

See Beecraft or BBKA News for details.

Some of our older members will know Ann and Dennis Scott and if they would like to meet them again this is an opportunity, Ann and Dennis will be at the show from about mid day on the Thursday and all day on Friday, they both would be pleased to meet old friends.

HONEY CROP

The harvest from our Hartley Down apiary was extracted last month, as seems general this year not a lot, about 75 lbs. but thanks to all who came to the meeting it is now ready to be strained and bottled. The job was soon done and followed by refreshments, a pleasant afternoon and opportunity for those present to see both of our division's microscopes one a new high power with provision to show images on a screen demonstrated by Mark Stott who brought them by train.

HELP

Despite many requests and enquiries our county association has still not been able to find a replacement for our treasurer who is due to retire at the Surrey AGM - so if you know anyone that might take on this vital position PLEASE let Sandra Rickwood know 01932 244326

Not so desparate as above, our division also needs some 'new blood' a replacement for our trustee and news letter editor in particular, but there are other jobs you may be able to help with on the committee.

HAMPSHIRE COLLEGE OF AGRICULTURE - SPARSHOLT - WINCHESTER

DEPARTMENT OF BEEKEEPING

Hive Design and the Bee-space

The Bee-space may be described as an interval wide enough for a bee to pass through, but too narrow to accommodate the comb. Such an interval within the nest is normally left open by the bees. Lesser spaces they fill with propolis, greater ones with comb. Under congested conditions the bees ignore these 'rules', but in practice such severe congestion should be avoided.

The approximate limits of the bee-space are 5mm ($\frac{3}{16}$ ") and 9mm ($\frac{3}{8}$ "). There is some variation between different races and strains, and recognition of the bee-space is a factor which members of the Bee Breeders' Association should take into account in their selective breeding.

Since Langstroth defined the bee-space in 1851 it has become the essential factor in the design of movable-comb hives. The frames are hung in the boxes so that, as far as possible, there is a bee-space all round them. At the points of support, where it must be interrupted, the area of contact is kept to a minimum by the hive runners.

Most modern hives are of the storified type, i.e. boxes of combs are placed one above the other to increase the capacity as required. In order to provide a bee-space between the top-bars of frames in one box and the bottom-bars of these in the next above, it is necessary that the boxes are a bee-space deeper than the frames they contain. The position of the frames should be with their bottom-bars flush with the bottom of the box, so that the bee-space is above the top-bars. This is the "top bee-space" arrangement (Fig. 1).

The alternative bottom bee-space arrangement should be avoided because it results in contact, and consequent propolis, between the upper box and the frames in the one beneath (Fig. 2). Contact can be avoided by rebating as indicated by the broken line a (a), but this is merely a compromise to wrong design in the first instance.

The Modified Dadant, Langstroth and Smith hives are made with top bee-space. The W.B.C. (Fig. 3.) Modified Commercial and National have the space below the frames, but modern versions of the latter are designed to provide a bee-space over the lugs (Fig. 3).

Queen Excluders

Since the queen excluder is interposed between boxes it influences the bee-space.

Unframed slotted zinc excluders are unsatisfactory. They sag when used on top bee-space hives (Fig. 5) and become raised on accumulations of propolis in those with bottom bee-space (Fig. 6). When suitably framed, with cross-pieces to overcome their flexibility, they are fairly satisfactory for hives with top bee-space (Fig. 7) but not very good on bottom bee-space boxes (Fig. 8).

The Waldron queen excluder is quite wrong, and efforts to modify it have not met with success. The wires are mounted in a grooved frame leaving an interval of 3mm ($\frac{1}{8}$ ") on each side. When this is added to the bee-space already provided in the box an excessive space results, and burr-comb is invariably built.

A wire queen excluder available from Hersog in Germany or E.H. Thorne is so designed that it can be set flush to one side of the frame, which provides a correct interval on the other side (Fig. 10). This is the only really satisfactory queen excluder available today.

Frame Spacing

It is not sufficient that the bee-spaces should be true when the hive is new and unoccupied, they must remain so in use. The method of frame spacing used has a bearing on this.

Metal ends with 22mm ($\frac{7}{8}$ ") top-bars (Fig. 11) are the worst possible method. The build-up of propolis between the spacers make it impossible to return the frames to their exact position after examination, and this results in the building of brace-comb between the top-bars (Fig. 12). Some self-spacing frames have the same effect, but a well made Hoffman frame (Fig. 13) when they are tightened up as they should be after every manipulation, the sharp V-edge cuts into the propolis and thus the correct interval is maintained.

Metal end spacers with bottom bee-space (Fig. 14). Each time an upper box is removed and replaced, more and more propolis accumulates above and below the upper lips of the spacers, increasing the interval between top and bottom bars until it becomes filled with burr-comb (Fig. 15).

Inner Covers

Burr-comb on the top-bars of the uppermost box results from using the wrong inner cover.

Flexible material is wrong. It lifts as the bees push propolis underneath, and each time it is removed and replaced more is added. In time there is sufficient room for burr-comb to be built. The inner cover of a hive with top bee-space should be flush on the under side, that for a bottom bee-space hive should be framed to provide the correct interval.

Many glass "quilts" are badly designed, but some have been produced which achieve the desired purpose. It is a mistake to leave any colony without an inner cover during the active season, for this frequently results in burr-comb on the top-bars.

Conclusion

1. Burr-comb and burr-comb are not necessary evils, but result from faults in design and use of hives and their accessories. Proper observance of the bee-space will ensure that all the comb is built inside the frames, none outside.
2. The correct way to design and build a hive is with top bee-space. There is no valid argument in favour of the alternative arrangement.
3. Queen excluders should be rigid, flush on one side and with a bee-space on the other.
4. The only satisfactory method of spacing brood-combs at present available is the Hoffman frame. (Unfortunately this has acquired a measure of disrepute because of bad manufacture).
5. Inner covers should be rigid, and designed to provide a bee-space over the top-bars.

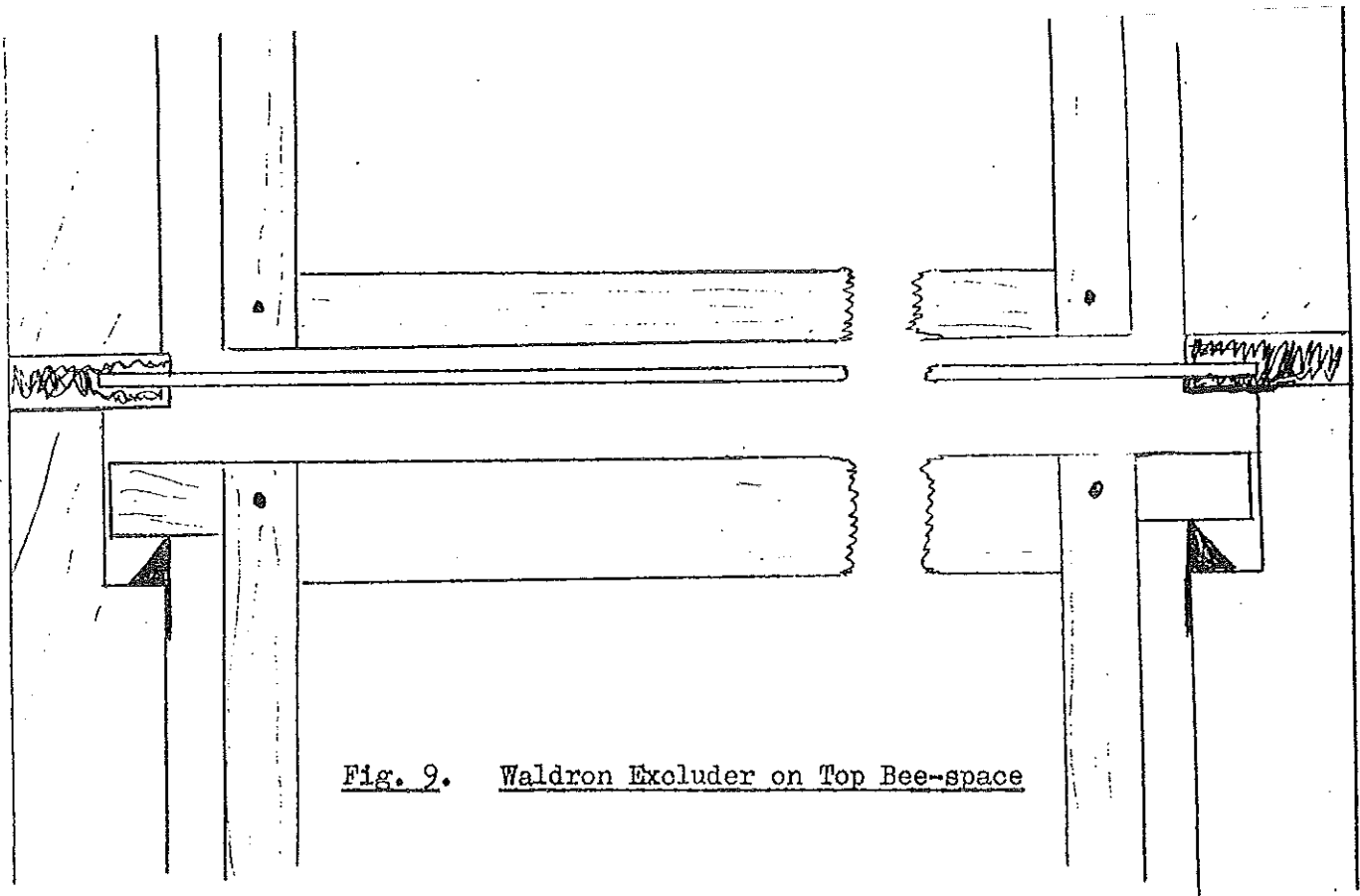


Fig. 9. Waldron Excluder on Top Bee-space

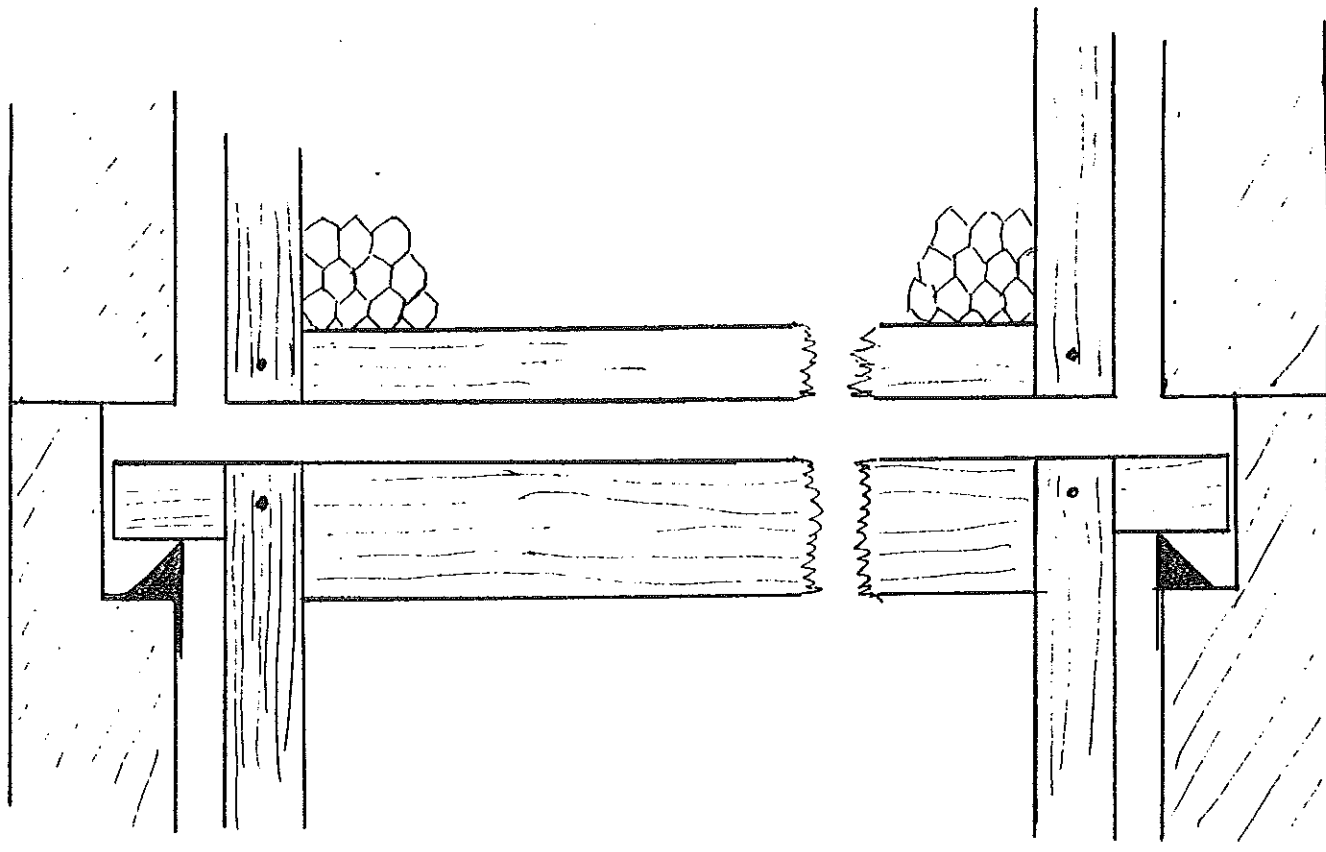


Fig. 1. Top Beespace

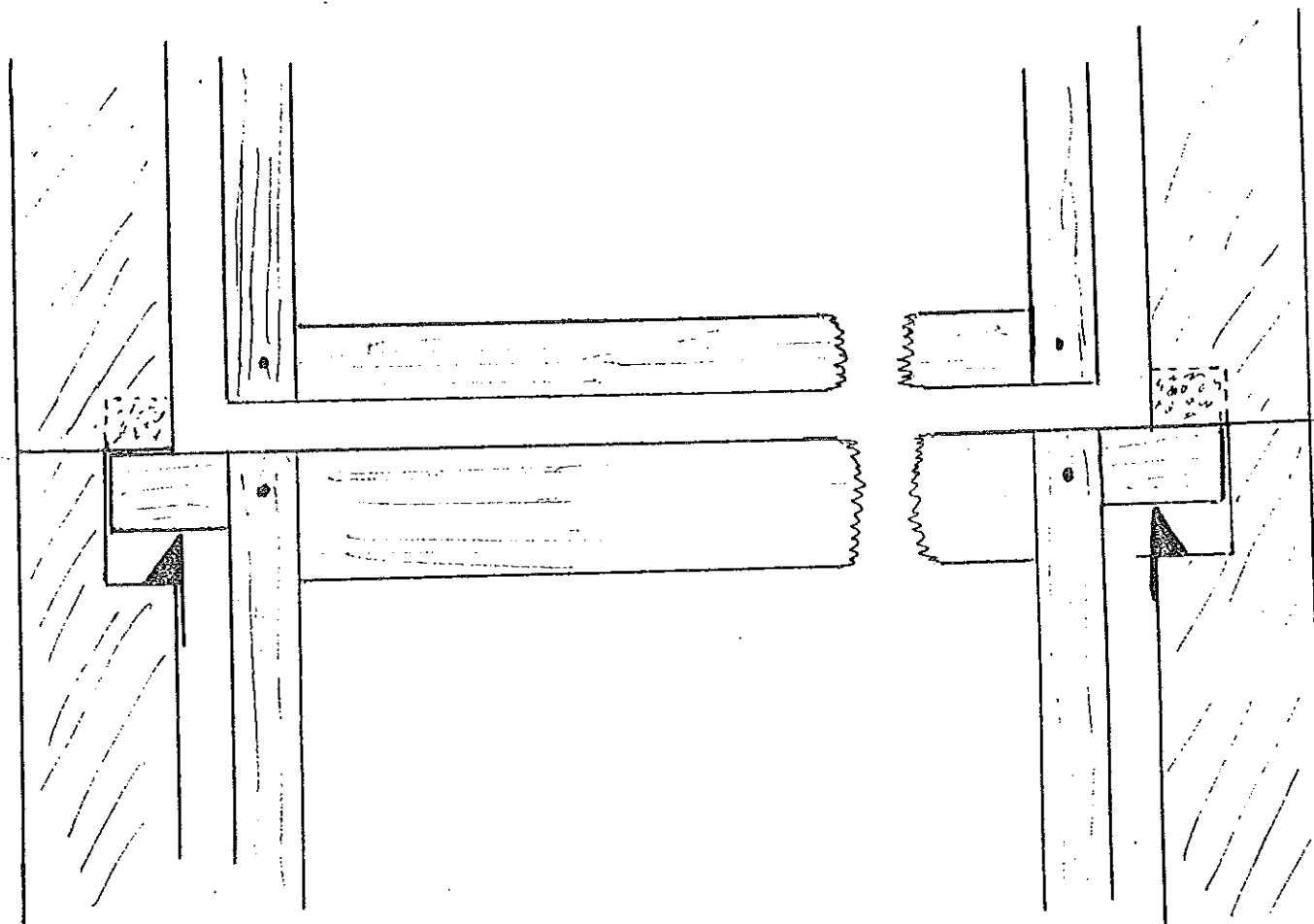


Fig. 2. Bottom Bee-space

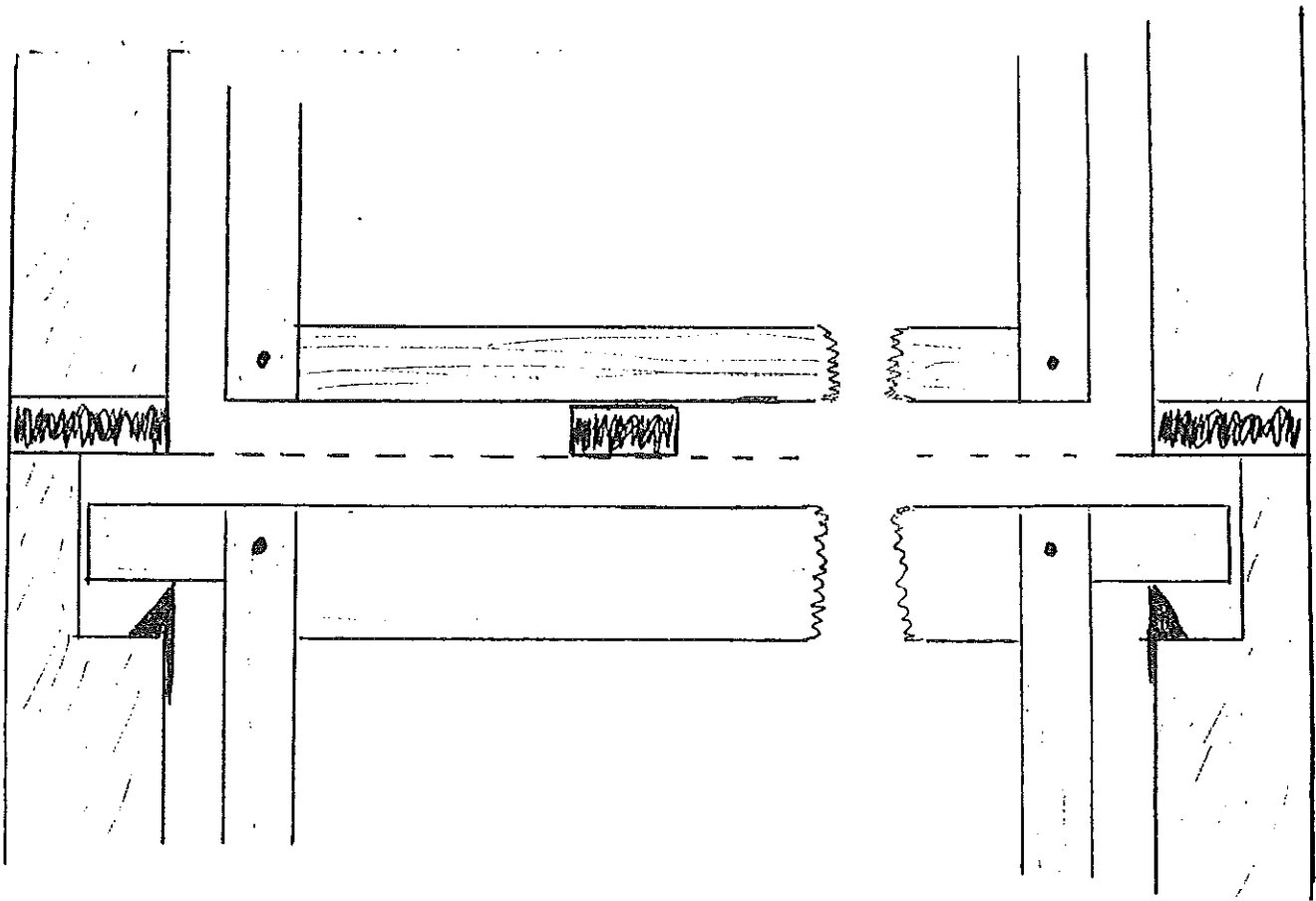


Fig. 7. Framed Zinc Excluder on Top Bee-space

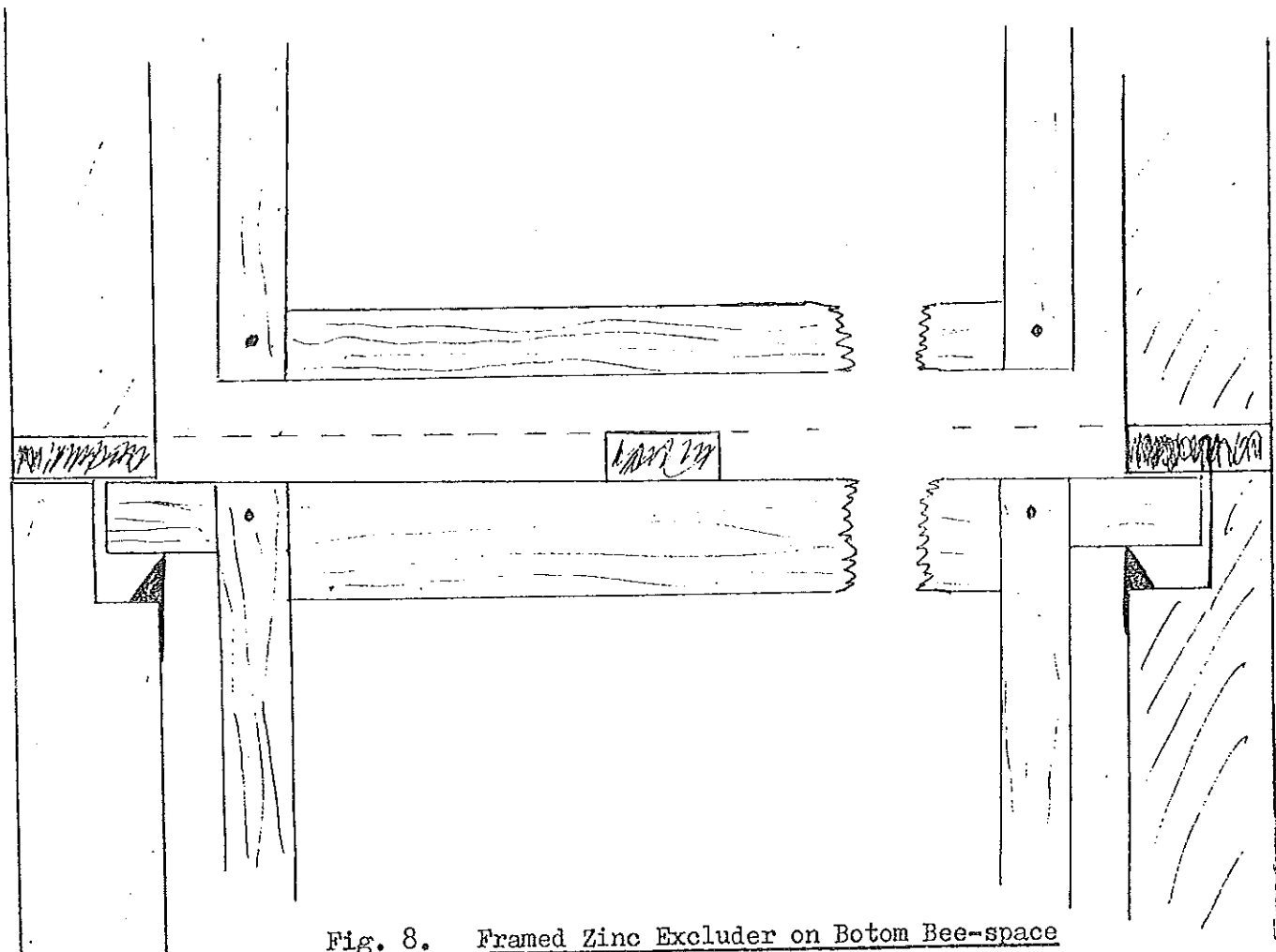


Fig. 8. Framed Zinc Excluder on Bottom Bee-space

These notes may answer some of newer beekeepers puzzles about hive design,
I have not printed all the drawings, if you are interested I can supply copies.