

Stahlman Beekeeping Notes for 2022

Discussions on Managed hives—
What Hive is best?



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As every new beekeeping season begins the discussion of which hive is best often comes up!

For me it was never a decision I had to make. My grandfather was a "Langstroth hive" beekeeper. The Langstroth hive is not the only hive that uses frames. The standard frame called the "Hoffman Frame" (A self-spacing frame) was adopted by A.I. Root and Charles Dadant (both manufactured hive equipment and published competing bee magazines).

This frame more than anything else determined the size of hives as well as depth of hive frames. This frame will fit any box having an inside dimension Length wise of $18\frac{1}{2}$ inches. The top bar of the frame measures 19 inches. This frame is the standard for the manufacturing of extractors, foundation, queen excluders, bottom boards, inner-covers, and hive boxes.

There are many choices the beekeeper has with hive selection. The Langstroth hive offers variation (8 frame vs. 10 frame boxes and nuc hives 3,4,5 or 6 frame sizes). In addition, frame depth (deep, medium, shallow and special frames made for comb honey.)

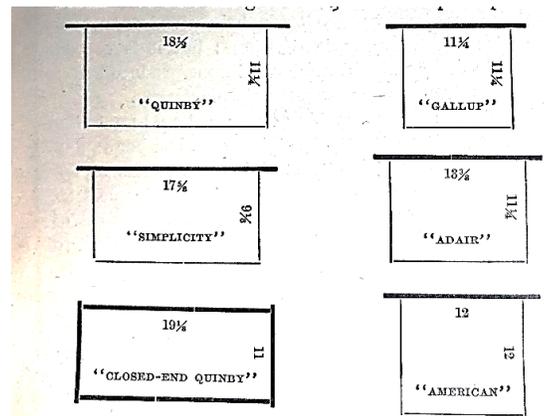
It is great for commercial beekeepers. It usually has a higher used equipment value.

This is a picture from *The Honey Bee* published 1888 by the Dadant's. It shows many frame sizes and hives that have disappeared from use.

Beehives have followers that promote them for various reasons. The Warre hive has been around for many years and a few still promote it. This short note tries to share what it is, rather than promote it as a perfect hive.

When you buy bee equipment, one consideration should be "how good is this hive for the bees?" Does the hive force honeybees to deviate from natural behavior or change for the needs of humans?

I have been working with a number of new beekeepers who have asked my opinion on the type of bee hive to buy. Of course, I encourage them to get Langstroth hives because almost anything needed is so standardized that local bee equipment suppliers can help them out. But there are a few who want to try something different.



Since the internet is so available, one can buy almost anything called a bee hive. It is interesting how many are sold as “Better for the Bees.” How about the “Flow hive” sold with the idea it causes the bees so much less interference by being opened for inspections. It makes getting honey almost effort free. Does it?



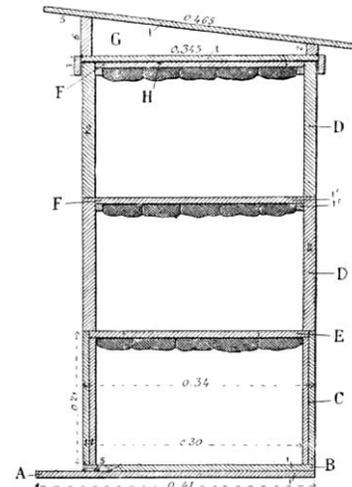
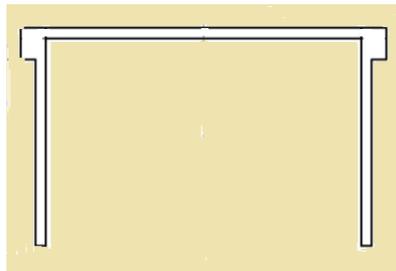
But there is one hive that fits the mold of being managed but much different than the management used with the Langstroth hive.

Born in France in the late 1800s, L'Abbé Eloi François Émile Warre developed "La Ruche Populaire" (the peoples hive) in an attempt to develop a simpler, less intrusive form of beehive management.

Most individuals who start beekeeping will want to grow the number of hives they own. Long hives (top bar hives) take up a larger foot print than a Langstroth hive. The comb attached to the top bar is not stable unless held vertically with the ground. And a comb full of honey may detach from the top bar. The long (top bar hive) is hard to move. One reason for the Langstroth hive's popularity is the ease in picking up the hive and moving it from location to location for pollination. The “Warre Hive” has a similar footprint to the Langstroth hive. But it is not managed the way beekeepers manage a Langstroth hive. The Langstroth 10 frame hive is a rectangular box 16 1/4 by 19 7/8 inches.



The Warre hive uses a modified frame to which the bees attach comb to the top bar – original drawings from his book show a bottom bar as well. The hive box is almost 16 inches square and 12 inches deep.



[English conversion of frames is 11.81102 x 15.74803 inches] Frame size. The boxes are square.

There are plans for the construction and I have included one plan as an attachment if you want to build one. Metric numbers need to be converted to standard inches. The hive consists of a bottom board, hive bodies, frames more like top bar frames, and unique top cover.

This is a picture of a Warre hive top bars called fixed comb. Warre recognized two uses for



bars – One without end bars is called fixed comb frames because bees might attach comb to the box side wall. One with end bars prevent the bees from attaching the comb to the side wall of the box. It was possible for a person to add observation windows to the side wall of a hive body.

From a distance the Langstroth hive might look like a Warre hive.

The Warre hive, like the Langstroth hive has one box on top of another box. But that is where things change. In a Warre hive, the bees build down rather than up. New comb is under the brood cluster. Just like it is in a bee tree or other opening the bees find

to build their nest. As the brood nest develops, new bees emerge from cells and those cells are filled with pollen and honey. Thus, in a Warre hive, the nest moves to the new comb added below each new box. New wax is built in the frames called (bottom supering.) Queens move to the newly built wax and expands the brood nest down.

With the Langstroth system, we add new supers above a hive body when the bees have drawn comb. This is called “top supering.” The brood nest is fixed and does not move. The queen is confined with a queen excluder to keep her in that location.

With the Warre hive, the new boxes are placed below the brood nest – natural growth of the hive moves down-ward. The new box added below the brood will quickly have new comb built. The queen will move down to the new comb to continue egg laying.

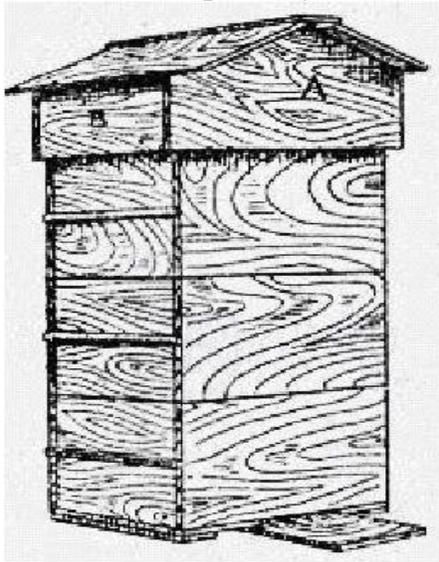
Thoughts of Warre in designing his hive: In his own words --

1. “The smaller the brood chamber the smaller is winter consumption of stores.”
2. “Wintering was better on deep frames.”
3. “Moreover, the shape of a hive of eight 300 x 400 mm frames approaches the shape of a swarm and allows the bees to put more honey above their cluster, which favours good wintering, even in cases of prolonged cold.”
4. “Furthermore, this shape facilitates the development of brood in spring. When the bees want to extend the brood downwards a centimetre, they have to heat this centimetre over all the surface of the hive. And the square is the shape that best approaches that of a cylinder, an ideal shape because it favours the distribution of the heat in the inside of the hive.”
5. “We had observed that the bees ascend with difficulty into supers placed above deep frames, because there remains a little honey at the top of these frames. And bees cross over honey with difficulty. Enlargement by one hive-body box placed under the other is also a big step forward.”

6 “I settled for putting starters --And I noticed that on these starters the bees constructed their combs as quickly as those on foundation and that these combs were more regular. I thus decided to continue to use only starters of raw wax and I have never come to regret it.”

My notes: (Starters were starter strips of comb placed under a top bar)

- The Warre hive is smaller than a Langstroth hive [Less volume].
- The top cover has features to allow for move ventilation.
- The hive is bottom supered – the top hive is full of honey and the bees move down to build the brood nest. As winter comes on the bees can move back up to the honey stored above the brood nest. Winter survival is better because the natural nest is not disturbed.
- It is simple, easy and economical to build.

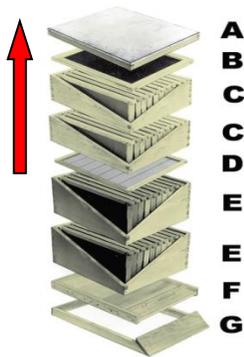


The major advantage is the bees occupy a hive that can be managed and only the honey in the top box is harvested.

It provides a natural nest for winter survival which is not provided by larger hives. Brood is forced downward as the bees fill upper comb that previously contained brood with honey. It is the natural order of a honey bee living in the wild. Most modern boxes have forced the honey bee to adapt to what humans want! The Warre hive uses comb – not foundation – built from the top bar of the frames providing all the advantages of the top bar hive.

Look at this management system this way.

Langstroth system
System

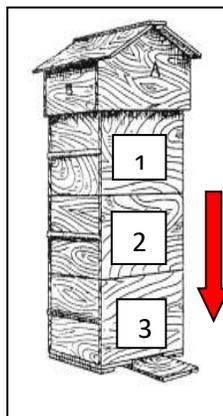


Supers are added above the brood nest.

Boxes vary in size (Deep, medium, shallow and comb honey supers.

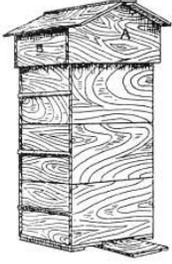
All supers are added above the

Warre System



The first box placed on the bottom board is raised above new boxes as they are added to the hive. Hive boxes 2, & 3 are added below box 1.

Bees build comb on wax starter strips under the top bar. As new hive boxes are added below the box #1, the hive gains height. The queen and brood move down into newly built comb. *This is a bit labor intensive but results in a natural built nest.* Because all boxes are square and deep, there is no need for any other box sizes. No need for foundation in frames. Thus, the claim of natural beekeepers, no chemical contamination results in healthier bees.



I am including a copy of the Warre hive building plans as an attachment to this article.

Check Amazon for "[Natural Beekeeping with the Warre Hive.](#)"

I have noticed that various plans use different sizes for boxes. If making your own hive, accurate measurements are required for inside dimensions. The investment in the book "Natural Beekeeping with the Warre Hive" would be a wise investment. It is not the same as a book titled "Natural Beekeeping."

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