

A close-up photograph of a honey bee on a honeycomb. The bee is positioned on the right side of the frame, facing left. Its body is covered in fine hairs, and its wings are partially spread. The honeycomb cells are visible in the foreground and background. The image has a torn paper effect at the bottom, with a black silhouette of the bee and honeycomb shape cut out from the bottom edge.

The Long Langstroth Hive

Design, use and function



This is me, Caroline Abbott. I have a sense of humor, I am afraid. This was my attempt at an acceptable "mask" I could breathe through early in the pandemic. I don't think the CDC would approve, but we can't take ourselves too seriously, you know.

Onward to the
Long Langstroth
Hive. Here are my
two hives in
current use.



My history with the Long Langstroth Hive

- I was exploring the possibility of putting a top bar hive in the club apiary
- My research led me to see that top bar hives had a lot of issues
- The Long Langstroth hive addressed the short comings of the top bar hive, while preserving its assets.

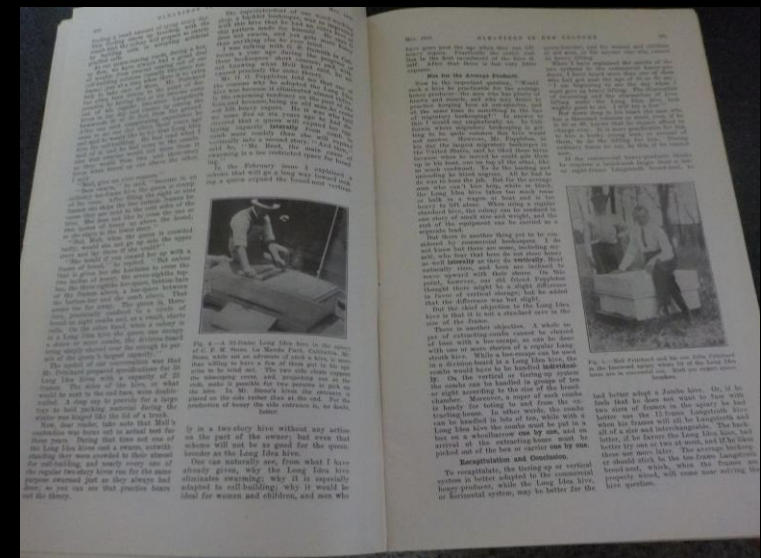
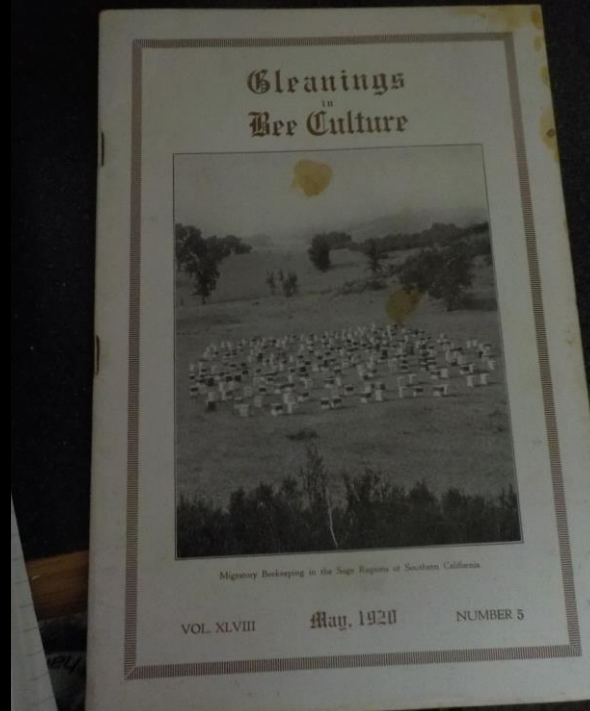


The most important issues:

- Ventilation
- Capacity
- Compatibility with traditional equipment
- Ability to extract combs
- Disruption during inspection

Assets:

- No heavy lifting
- Adjustable height
- Relaxed management
- Can view the hive's progress easily
- Much less disruption during inspection
- Easier to find the queen/determine queen status



Basic resources I used to develop my version of the Long Langstroth hive.

Here is a quote from the May 1920 *Gleanings in Bee Culture* article entitled, "Long Idea Hive Again" – "Bees swarm because in an ordinary 10 frame hive the queen is cramped for room. After filling the eight or nine frames she skips the two outside frames because they are next to the cold sides of the hive. She does not like to cross the one or two inches of honey up above the brood; so she stays in the lower story."

– The author of the article then explained why the long hive solved that problem because the queen has unlimited space to move back with the brood nest and does not feel cramped and inclined to prepare to swarm.



Entrance information:

- Bees always place the brood near the entrance
- In a vertical hive the frames are perpendicular to the entrance
- Putting the entrance on the end of the long hive keeps the brood on one end, and the honey behind, which is important for the winter.
- Putting the entrance in the middle splits the honey stores on both sides of the brood nest, which could potentially cause winter starvation.
- Some styles put the entrance up front but on the side. This puts the entrance perpendicular to the frames as in a vertical hive.
- I have found the bees can defend the entrance better with the frames parallel to the entrance rather than perpendicular, but I don't think it matters that much.
- Some people run a double hive in a long box. That is fine, but is not really the goal I chose to achieve with my design. A two queen system will always make more honey, but requires intense management to prevent swarming. My goal was less management.



Installation of the long hive includes leveling it



The standard frames allow installation of a regular nuc.



Our flat roofed, double walled version.



The hive open – hinged lid, standard inner covers



Ventilation is achieved through the vents in the roof and the notched inner covers. The entrance is reduced in this picture.

The double walled version has nested inner covers (off in this picture)



To examine the hive, remove back frames and slide frames over.



Always keep frames over the hive when inspecting to prevent losing the queen!



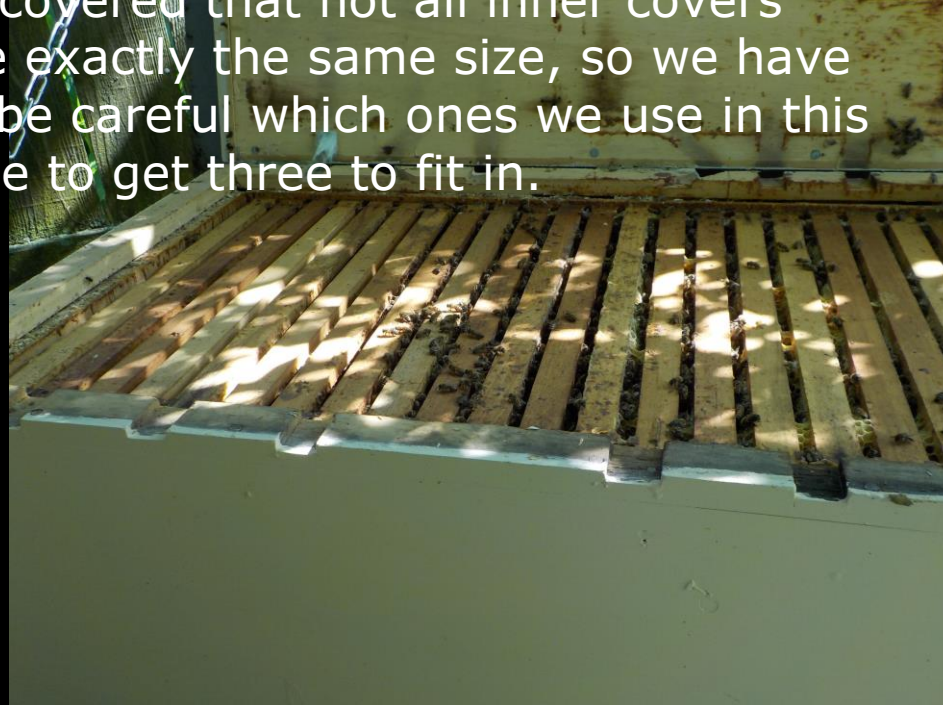
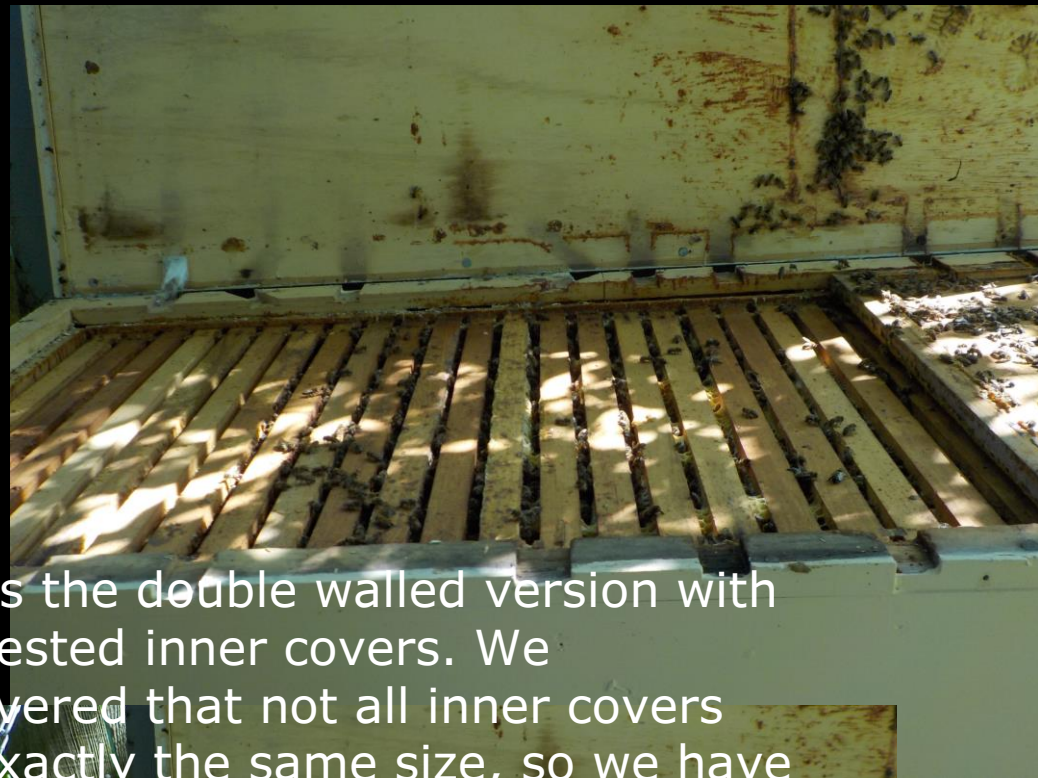


Here is the single walled version with the peaked roof. This is the final design we ended up with after five years of experimentation. Plans for this hive are on my website – abbottsustainablefarms.com. The plans are in a printable .pdf format and there is also a photo gallery of the hive being assembled. We used three standard inner covers with notches for ventilation. We added extra notches for more ventilation. We use standard deep Langstroth frames. I use foundationless frames, but others have used regular frames with foundation with no issues.





This is the double walled version with the nested inner covers. We discovered that not all inner covers are exactly the same size, so we have to be careful which ones we use in this hive to get three to fit in.





Honey frames in the long hive.



The flat roofed hive in winter.
You can clearly see where the
cluster is!





Even with the deeper snow, notice the indentation where the heat of the cluster has melted the snow.



Late winter on a "warm" day. Bees are flying, lots of bee droppings in the snow.



I transferred the overwintered colony into this hive in the spring.



Brood frame early season



The overwintered colony did swarm – in April!!



Natural comb in a foundationless frame.



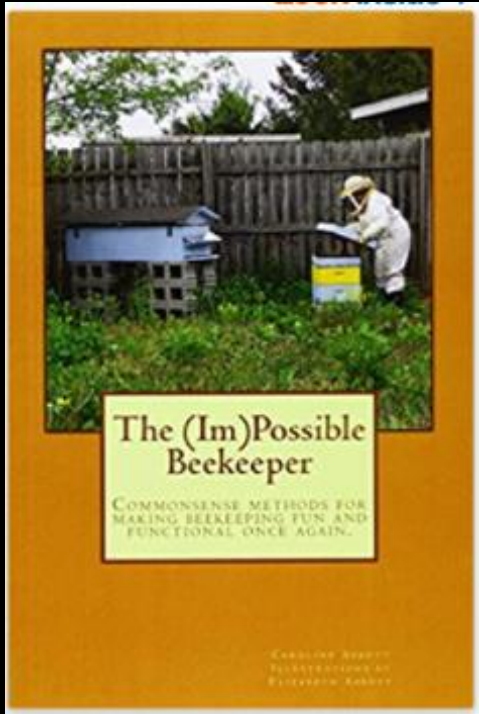


Inside the long hive, with
and without inner covers.
Top right is the double
walled hive.



Long hives as they appeared in
September of 2021.





My book available through Amazon. There is a direct link on my website, or you can search it.

Contact information and resources:

Caroline Abbott –
www.abbottsustainablefarms.com

Wyatt Mangum's book: [Top-Bar Beekeeping: Wisdom and Pleasure Combined](#) -
<https://www.tbhsbywam.com/>

