became intolerable, and therefore they sought for more agreeable quarters. If anyone has a more intelligent reason to give I would be glad to see it explained. But the most unintelligible part of the whole matter is, why did they leave their queen behind? Who can tell?

Three colonies having disappeared—not dead—I had but twelve left to commence with in the Spring of 1884. These increased to twenty-seven, mostly by natural swarming, and gave me 701 lbs. of surplus, mostly comb honey in one and two pound sections, averaging about fifty-eight pounds per colony—Spring count.

Last fall, when preparing my bees for winter, I added one new feature to the usual top covering of cloth and chaff. After putting the cloth over the frames, I laid on four thicknesses of common newspaper—I think a piece of building paper would be better—and then put the chaff upon that. The paper effectually prevents the passage of air, and consequently any rapid escape of heat. Yet it absorbs the moisture, passes it off into the chaff and thus it escapes. This plan worked admirably—beyond my expectations; while the paper next to the bees would feel dry and warm, the top of the chaff above would sometimes be soaking wet, or crusted over with frost. The entrance to hives was left open full width, being 8 inches by ¾. All except one colony had their natural stores just as they had prepared them for themselves; two or three that seemed a little short I gave sugar syrup to make up the deficiency. Thus prepared for their long winter repose, they took their last fly for 1884 on the 15th of November. Cold weather then came on, and came to stay. After the middle of December it was extremely cold. On Christmas morning it was 30 degrees below zero. Mean temperature for the month of December as indicated by my thermometer, carefully noted every morning, was seven above zero. Mean temperature in January, 1885, was seven below zero; lowest point reached during this month was 40 below zero. The mean temperature for the 1st twenty-three days of February was ten below zero. On the 24th of February it began to moderate. On the 27th the bees had a good fly after having been confined to their hives 104 days, much of which time the cold had been intense. Examination at this date found most of them in good condition. Five colonies had been badly affected by diarrhœa, and considerably reduced in numbers. One had evidently smothered in the early part of the winter, entrance being closed with ice. All but one of the surviving colonies had more or less brood. It appeared now as though the hardest of the winter was over, and I removed the snow which I had shovelled up around the hives in January. But winter was not over; the 17th of March came down nineteen below zero, and the wind blew like a blizzard for about two days and nights. From this to the 23rd the thermometer ranged from ten to sixteen below zero, and I think that my bees suffered more damage and loss during those seven days, than they did all the previous part of the winter. Two of those colonies which had suffered from diarrhœa succumbed to the cold winds and froze to death, two others have since dwindled away until one has become extinct, the other having a valuable queen. I took her and a few bees, put them into a card of brood, placed them in a cage made of wire cloth—after G. M. Doolittle's plan for framing nuclei—and hung them in a hive with a populous colony to see what would be the result. My stock is now reduced from twenty-seven to twenty-two. I hope to get through without further loss. Bees are bringing in natural pollen very lively the past few days; thermometer up to seventy-six on north side of house; it seems quite summer like.

By way of experiment, last fall, when I was fixing my bees for winter I arranged one colony with a five inch vacant space below the combs, full size of hive, otherwise prepared same as the rest. This came through one of the best.

For another experiment I selected some combs which contained no honey, no attention to pollen, put them into a hive, with a light colony, removed all other combs, and then fed them for winter stores some early gathered honey, which I suppose, was mostly the "so-called honey dew" it was so nauseating to the taste that it was unfit for use in the house. Amongst its many flavorings we could plainly distinguish the taste of green willow. It was worthless for anything else, so I wanted to see if bees would live on that alone through the winter, and they did and are in prime condition now. The inside of hive and comb are as clean to-day as they were last summer. Do not think that half a pint of dead bees could be found in or around their hive since last fall.

The 29th of last October I visited an apiary where they were brimstoning some of their bees. I secured a queen and about one-half pint of bees, caged them on three two-pound sections, placed them in the pantry adjoining our living room, which was in constant use every day, temperature kept from 50 to 70 degrees, very seldom if ever went below fifty above zero on the coldest nights. The queen and some of the bees lived through, and they are now caged upon a comb of brood, hung in a hive with another colony. They