

Answer.—From ten to 15 degrees.

Rev. W. F. Clarke.—To his mind the work of carrying the hives out of and into the cellar or the bee house was the worst part of it.

J. B. Aches.—Agreed with Mr. McKnight regarding the comparative consumption of honey; was in favor of indoor wintering, and generally put his bees away about the last of October. In answer to a question he stated that his cellar was entirely underground.

G. H. Ashley.—Had tried experiments as to the amount of honey consumed in wintering outdoors as against indoors. When he had 82 colonies he had placed 76 in the cellar, and left 6 average colonies outside on summer stands in double walled hives. The bees were placed in the cellar on the 19th of November, and were taken out on the 10th of April, having been in winter quarters exactly five months. The hives were weighed in and out. Taking an average half dozen of those wintered in the cellar, he had found the consumption to be 9½ lbs of stores, as against 13 pounds, consumed by those outside. 75 per cent of those wintered inside bred up better than those which had been left outside. Spring dwindling, was in his opinion, caused by bees being set out too early. If the bees were kept at an even temperature the consumption of stores would be very much less. Last winter during a confinement of 5 months the consumption per colony was 5 6-7 lbs. He attributed the light consumption of stores to the even temperature which he had maintained—very close to 45 degrees. When he had started bee keeping he was filled up with the idea that sub-earth ventilation was required to winter successfully, but he had long since done away with that entirely, and now used only a two inch conductor pipe to admit air.

S. Corneil.—Inquired if Mr. Ashley had taken into account the amount of brood in the combs, between those wintered inside and out, when he was

G. H. Ashley.—Said there was no difference in this case, though the point had been taken into consideration at the time. He used a modification of the Simplicity and the Langstroth hive, estimating the average consumption.

S. Corneil.—Said that if protected well

outside bees would winter as well as inside, and would need but very little more stores. He put no packing below the hive but raised them up about four inches from the ground and left an air space below.

A Picket.—Inquired if took more than four inches of packing to obtain the results mentioned by Mr. Corneil.

S. Corneil.—That depends.

E. R. Root.—Thought that the question hinged on the consumption of stores. The objection taken by Mr. Clark as to the trouble of getting bees in and out of cellars, did not amount, to much. He had assisted in carrying a large number of colonies into the cellar the past fall and found that by using hive bails there was very little stooping, and the work was not worth mentioning.

Prof. Cook.—Thought that Mr. McKnight's paper was excellent, but that there had perhaps been a little too much said on the point of ill health. He agreed with Dr. Harvey on that point. He was satisfied, however, that Mr. McKnight was pretty accurate as to the comparative consumption of stores. He was not as great a believer in sub-earth ventilation as he had formerly been. If the temperature were kept uniform at from 40 to 45 degrees, the great point in successful wintering was attained.

S. Corneil.—Sub-earth ventilation was beneficial only provided there was a vigorous exhaust. It makes no real difference where it comes in; the advantage of bringing it in through the earth was that the air would likely be warmer. The difficulty arose, where the air came in too fast, being unable to manage the current. Where it is possible an apartment should be partitioned off, into which the air might come. He had tried a experiment in this direction by building a small box about the sub-earth pipe, at its entrance to the cellar, and covering it with wire cloth, as he had heard that wire netting was a help in breaking and distributing the current, but he was unable to say that he had observed any real result, as the experiment was conducted on too small a scale. He ventured the assertion that he could winter bees in a temperature of 25 degrees, and do it successfully by lining the walls of the hive thick.

J. B. Hall.—Where is the man who