

"pond", or "A Renfrewshire Bee-Keeper." The pages of the Journal of Horticulture, 20 to 30 years ago, shows that the Rev. L. L. Langstroth, Wagner, and other U.S. citizens did not look upon these writers as either "sneaks" or "cowards" but treated them with respect and honor. They were the pioneers of British modern bee-keeping, and the Americans take great credit for not a few of the things first discovered by them. Mr. W. Z. Hutchinson also advises me to "make a few experiments."—It is curious that he considers me qualified to do so.

Just fancy Doolittle "procuring at a high price the best self-registering spirit thermometer possible," as he puts it. To get it between the combs he had to take it out of its case and widen the combs to get it between, as it was $\frac{3}{4}$ in. thick; then he kept pulling it out every few days to read it off, as if the disturbance of the bees would cause no error; and with this thing he was bothering his bees all winter, only one at a time mind. There is no statement even that his instrument registered correctly, beyond that it was "at a high price."

A British savant would have treated a dozen stocks at once; he would have got 12 thermometers, about three inches long and under $\frac{1}{2}$ in. thick on the bulb, that he could read off at any time without disturbing the hive or bees. These he would have sent to Kew observatory to be tested, with each of which he would receive a certificate with instructions to add or subtract at certain points where in error, as it is a rare thing for an instrument to work correctly, owing to the difficulty of drawing the small glass tubes of equal diameter throughout their length: thus at 30° four or five might have to be added and at 70 as many subtracted to be correct. These instruments he would fix in the fall and read them off at regular intervals all through the winter, and he would extend these experiments over four or five years before feeling warranted in making them public. Now would "Friend H.," or any other of like nationality have the "time" to "carefully" do this. I am afraid he never thought I had read this article in Gleanings or kept a copy, or he would not have referred me to it.

In his Review for '88, page 58, he says, "We cannot help wishing that there were better methods of communication in regard to apicultural matters, between this country and the old: as it sometimes happens that we never learn of valuable methods in use across the sea until we have invented the same processes." Whose fault is this pray? The United States have protected themselves against trade and

even knowledge, as they will not allow new books to pass free in the mails from the Old to the New Country, whilst on this side we keep well posted up, because nearly everything is admitted free. He teaches in his journal that Friend Heddon first invented the horizontal divisible brood chamber which has certainly been in use more than 200 years in the north of this country and Scotland.

The Philosophical Transactions, No. 96, July 21, 1673, vol. vii, proves that such hives were being used with success in Scotland and continue to be so used even to this day in spite of all improvements; and this by men who keep these old hives side by side with the modern ones. If this is not enough let me quote from the title of a patent granted by Charles II. on the 23rd day of April 1675, being numbered 180, to John Gedde, Wm. Galt and Samuel Nowell for

"A Way for the improvement of bees by the invention of such commodious hives or boxes, placed the one upon the other, having holes or passages in the top to lett the bees constantly work through."

I shall have something startling to say about this patent when I have time to write it. A copy of it is in every public library of note on the American continent presented gratis by the British Government.

Mr. Hutchinson is continually teaching that a "Honey-Board," with or without a queen excluder, is an absolute necessity in the production of comb honey. On this side the numerous bee-keepers who use the storifying, horizontal divisible brood chamber hive as improved by Robert Kerr about 1819, or the further improvement made by "A Renfrewshire Bee-Keeper" about 1860, know how to get super comb honey without either honey-boards or queen-excluders; they can also tell the moment when a super is finished without having to guess or open a hive. These people would laugh at the American ideas about supering and set them down as ignorant "gropers in the dark." It is not for them to teach Americans, nor do they care to waste time teaching those Britons in the South who first became infected with the "bee-fever" from America.

It would pay Mr. Hutchinson to get hold of some of the British bee literature and better inform himself on the various subjects, then he could have said who invented queen-excluder zinc, and not after saying this part belonged to Heddon and that to Tinker say the zinc itself was invented by "somebody else."

Now "friend," in conclusion, let me say I could say more if any good could be done by it. I have your little book on the "Production of