

over. I got home at 11 o'clock at night, tired and sleepy. I have since spread them out on the floor and now evenings, when not busy, I sit down and husk or shell them. I will have about a bushel and a half when shelled.

WILL ELLIS.

St. David's, Oct. 30th, 1885.

Friend Ellis supposes that there are some juvenile subscribers and readers of the CANADIAN BEE JOURNAL. There are too, lots of them, and a little story like the above will, perhaps, be eagerly read by them. We have never as yet inserted in the JOURNAL any matter foreign to bee culture, nor shall we do so to any great extent, but a little change occasionally will, we think, not be considered an intrusion.

NORTH AMERICAN BEE-KEEPERS' ASSOCIATION.

REDUCTION IN RAILROAD RATES.

DO not publish the notice that I sent you a day or two ago, saying that the promise of reduced rates had been withdrawn. The telegraph has been set to work, and the result is that we will have reduced rates just the same as though they had not been refused. The prospects are now quite fair for getting reduced rates all over Ohio, and *everyone* who is coming should send for a certificate, and if I do succeed in getting reduced rates in Ohio, I can send certificates even at the last minute.

W. Z. HUTCHINSON,

Sec. N. A. B. K. A.

Rogersville, Mich., Nov. 21, 1885.

A day or two ago we received from friend H. notice that the Railway Companies had refused to give us reduced rates, and the notice was already in type when along came the above. Of course we are more than glad that the arrangement has been made, and we willingly withhold insertion of the same.

FRIEND DOOLITTLE'S THIRTEEN YEARS' EXPERIENCE.

The net proceeds of the apiary of Mr. G. M. Doolittle, a noted bee-keeper of Borodino, N. Y., for thirteen years from an average of forty-six hives, was \$12,300, an average of \$946 a year. Mr. Doolittle thoroughly understands the business and gives nearly his whole time to it. He is a frequent contributor to the various bee journals and papers devoted to this interest.—*Lewis-ton Journal*.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear each week, Queries and Replies; the former may be propounded by any subscriber, and will be replied to by prominent bee-keepers, through-out Canada and the United States who can answer from experience, as well as by the Editor. This Department will be reserved for the more important questions, others will be answered in another place. We hope to make this one of the most interesting departments of the JOURNAL.

SUGAR PRODUCING MORE HEAT THAN HONEY.

QUERY No. 45.— We are told "that sugar contains heat-producing elements to a greater degree than honey." What are the facts of the case?

G. M. DOOLITTLE, BORODINO, N. Y. — Have not studied the thing up.

DR. DUNCAN, EMBRO.—As sugar and honey i.e. grape sugar, are the same chemically I don't think there is any difference.

P. H. ELWOOD, STARKVILLE, N. Y. — Liebig says 249 parts of cane sugar produces as much heat as 263 parts of dry grape sugar.

JUDGE ANDREWS, MCKENNEY, TEXAS. — I do not know what the facts are. There are no such things as "heat-producing elements," heat is a result of chemical action.

J. E. POND, JR., FOXBORO, MASS.—To give a satisfactory answer to this question would require more space than can be afforded. In order to explain the subject fully, it would be required to enter into a disquisition of the causes of heat, and the way and manner in which it is produced by the action of food. It is assumed that certain elements produce food when digested, but whether the changing of cane to grape sugar of itself is, I think, an unsolved problem. I should ask, "are we told correctly?"

DR. J. C. THOM, STREETSVILLE, ONT.—Sugar (C 12, H 22, O 11) is contained in all honey. in combination with other constituents, make a saccharine solution having the same proportion of cane sugar that honey contains weight for weight, and the heat production would be the same in both cases, but in the honey we would also have other heat producers of a lower order than pure sugar. Dextrose or grape sugar and levulose or fruit sugar. Thus, I would say that a solution of pure cane sugar of equal density with honey would be its inferior as a heat-producer.

PROF. A. J. COOK, LANSING, MICH.—I doubt it. If it is better fitted to nourish us then, yes; otherwise, no. A recent German master and experimenter in physiology says when we eat cane