

do not know their origin; you may probably be able to judge from the appearance which are ripe and which are unripe, and I will tell you afterwards if you have made a correct judgment.

For one or two moments I am going to direct your attention to this chart No. 3. The question of the storage of honey is an important one,

that temperature. See the result upon the honey. The percentage of water in the original honey, 15.88; that which was exposed to the atmosphere for one month was 14.24. What does that mean? It means that the water has passed off into this dry atmosphere. But honey kept in a moist atmosphere contained 31.46 per cent; it had doubled its moisture contents.

TABLE III. Experiments on the storage of honey, 1902.

					Water, per cent.
A	Rip honey, from capped comb .....				15.88
	" " exposed to dry atmosphere 1 month .....				14.24
	"	"	moist	" 1 "	31.46
B	"	"	dry	" 20 days	13.84
	"	"	moist	" 20 "	43.23

A: Honey placed in glass cylinder.

B: Honey placed in open evaporating dish.

and I expected our work in connection with ripe and unripe honey would throw some light upon it, but in addition to those experiments just detailed I took some honey extracted from fully capped comb, which you will therefore call ripe honey, and I exposed it in a glass cylinder to the atmosphere of the laboratory, which at this time of the year in Ottawa is an exceedingly dry atmosphere. You know that the atmosphere in the winter time is always drier than in the summer time. The higher the temperature the more moisture air can hold. I took some of the same honey, and I exposed it in a similar glass cylinder to a very moist or saturated temperature. For this we took a large bell jar, and placed in it a flat dish of water; then making a little scaffolding or shelf over it, I placed upon it the honey in this cylinder, and put the bell jar over the whole thing and left it in the laboratory at a temperature of, we will say, 70 degrees Fahrenheit, and very soon that air took up as much moisture as it could from this dish of water. The air was saturated with moisture at

In the next experiment, we exposed a larger surface to the atmosphere by pouring honey into a flat evaporating dish. You might term it a soup plate. One was kept in the laboratory exposed to the atmosphere and the other put under this bell jar also holding a vessel containing water. What was the result? In that exposed to the atmosphere we have 13.84 per cent of moisture; it had lost a little more, as we might easily expect, by being exposed in the open flat dish than the honey in the glass cylinder. That kept in the open flat dish in this bell jar, in this moisture laden atmosphere, contained 48 per cent of moisture. That was nearly one half of water—more than three times the amount of water that the honey originally contained. I think that is a very valuable result in indicating the necessity of keeping our honey in a dry atmosphere. This honey, as soon as it had absorbed this water began to ferment. The spores which are always present in the air, found a suitable medium in which to develop and that honey fermented in the course of a very short time.