

nectar of flowers does not contain the acid, and that the air of the hive could only transmit it to the honey in insufficient quantity.

By analysing the blood of the bee, the contents of the craw, and the salivary glands he arrives at the conviction that the origin of formic acid is found in the blood of the animal. The blood circulating in all parts of the body, naturally permeates the salivary glands and deposits with them ferments necessary to digestion as well as formic acid. The nectar in passing to the craw of the bee receives a portion of the saliva impregnated with formic acid. In fact, in analysing the contents of the craw, the presence of the acid is determined whilst in the nectar there is found no trace of it.

"The honey is afterwards disgorged from the craw into the cells, where it remains until it contains not more than from 20 to 25% of water, after which it is sealed, and commonly called "ripe honey". Composed as it is of a dozen elements, it offers a food rich in plastic substances. Its time of preservation is unlimited and its hygienic virtues innumerable.

ULR. GUBLER.

Revue Internationale.

PETER PIPERS' NEWS NOTES.

Bees came out of winter quarters in good heart but, by and by, "a change came over the spirit of 'heir dreams," because when fruit trees were in bloom they were compelled to remain indoors much of the time through stress of weather.

The truth of Prof. Wilcox's statement was denied because of the impossibility of manufacturing honey comb, but this feat has been about accomplished. The British Bee Journal, of the 10th of May says. Among the novelities of 1884 already introduced, is that just brought under our notice by Otto Schultz of

Buckrow, Germany. "We have presented to us a sample of finished comb, made from genuine bees-wax with worker cells $\frac{1}{2}$ in. deep—which has never been touched by bees at all, but is just as it comes from the machine of the manufacturer."

Dr. Wm. R. Howard has written a carefully prepared scientific treatise, on the cause and treatment of foul brood. Mr. McAvoy's theory of the cause is noticed, but not endorsed—his treatment however is awarded the palm. Here are the Doctor's closing words on the latter subject and the closing words of the book too: "Thus it will be seen that though McAvoy's method of treatment, which at first was so unpopular, and seemed so far from being correct, has much to my surprise (and need I say disappointment?) been shown to be the only rational method laid down, among all the writers on this subject." This is a feather which Mc—may well stick in his cap and wear with pride.

"First they got kale to kale
Then they got cold kale hot again.
Next they got butter on kale
And curly kale to that again."

The above stanza of the old ballad recurred to my mind, on reading Hasty's summary of the preceding months literature, in the Review. He notes the tendency of a certain Journal to give over much of its space to the productions of a favoured few. Hasty is a clever fellow, and his monthly summaries of current bee literature is well worth reading. Like most reviewers he is somewhat lopsided, and his leaning is decidedly Stat's-ward. He does not entirely ignore Canada. He occasionally notices it en passant. It is clear he has not yet realized the fact that we have among us some of the foremost bee keepers in the world. But I suppose this fact has been overlooked by him, because of the other fact, that merit is never presumptive. He devotes most of his attention to those men who have served their kale to