

of butter, (equal to 800 tubs of 50 lbs. each net,) the rate will be 15 cents per 100 lbs. net per month.

**RATE B.**—For customers storing 5 or more, but less than 20 tons of butter (equal to 200 tubs of 50 lbs. net each.) the rate will be 18 cents per 100 lbs. net per month.

**RATE C.**—For customers storing less than five tons of butter the rate will be 25 cents per 100 lbs. net per month.

**(RESE RATE A.)**—For customers storing 15 or more tons of cheese (equal to 600 cheese of 50 lbs. net each,) the rate will be 12½ cents per 100 lbs. net per month.

**RATE B.**—For customers storing 5 or more, but less than 15 tons, (equal to 200 cheese of 50 lbs. net each) the rate will be 15 cents per 100 lbs. net per month.

**RATE C.**—For customers storing less than 5 tons of cheese, the rate will be 20 cents per 100 lbs. net per month.

**EGGS, RATE A.**—For customers storing 12,000 or more dozens of eggs, the rate will be 1-3 cent per dozen per month.

**RATE B.**—For customers storing 5,000 or more, but less than 12,000 dozens of eggs the rate will be 3-8 cent per dozen per month.

**RATE C.**—For customers storing less than 5000 dozen of eggs, the rate will be 1-2 cent per dozen per month.

**TERMS AND CONDITIONS.**—All the above rates are for charges for each month or fraction of a month, and in all cases fractions of a month will be charged as full months, except that in some cases there may be two (2) days of grace.

All storage bills are due and payable upon the delivery of a whole, or part of a lot.

No eggs received unless thoroughly candled.

All goods received subject to inspection.

Delivery orders must be endorsed upon regular warehouse receipts. No goods delivered otherwise.

Reasonable advances made on consignments.

ST. ALBANS COLD STORAGE COMPANY.

### DRAINING

The question you ask in your letter of the 3rd inst. has been asked very often before, both here and in England. In reply, I would ask you to consider the space that necessarily intervenes between any two pipes in a row of perhaps 40 rods long. Pipes, however well made, never fit closely; there is plenty of room for the greatest fall of rain to get into them in that way in the course of, at most, 36 hours. Bear in mind that the water *runs into the drains* and does not, as some seem to think, hunt its way through cracks in the soil until it gets into the top of the conduit, as thus: all soils can contain a certain quantity of water; when the land is *fully charged* with moisture from a rainfall, you can conceive that there is, so to speak, a *column* of water in the soil extending from the surface to the level of the drains; the next drop of rain that falls will press upon that column, and force the last of it to strive to find an exit, which exit it finds to be most easy to obtain at the bottom of the drain.

No doubt, some water gets into the pipes through their substance. If you soak a drain-pipe in water for a few hours, you will find it much heavier than when dry, but the greater part of the water enters between the pipes. Our pipes are much heavier than they need be, one inch and a quarter bore is enough for any ordinary length, and 2½ for mains. As for their cost, the smaller pipe ought to be made for five dollars a thousand at the kilns.

Remember that depth, up to a certain point, will compensate for distance. The heaviest clay in Kent, England, I have drained perfectly at 4 feet deep and 33 feet between the chains. The labour of digging, laying the pipes, and returning the soil, averaged, by contract, sixpence a rod of 5½ yards; including pipes, carriage, &c., \$17.00 an acre.

A long article on drainage from my pen, appeared at p 129 of the Journal for 1881. I presume to think that it contains all the information necessary to a thorough apprehension of the subject. I superintended the drainage of several hundred acres of land in Kent, Essex, and Gloucestershire, and, to make myself master of the job, I worked at the "bottoming out" part of the operation for several days.

Mr. Stevens.

A R JENNER FUST.

M. J. de L. Taché writes me word to-day, Nov. 21st, that the date is not yet fixed for the meeting of the Dairyman's Association at Montmagny.

A. R. J. F.

### Preservation of Our Apple Trees

The following abstract of an address on "Our Apple Trees and their Enemies," delivered by Prof. L. H. Bailey before the New York State Cider and Cider Vinegar Makers' Association, at Albany, N. Y., January 28, 1890, contains much valuable information upon a subject of vital importance to fruit growers and cider makers.

"The failure of the apple crop was never so complete as in 1890. The trees blossomed very full, but the fruits failed to set. The spring was exceedingly wet, and mostly cool. When the orchards were in bloom unusually heavy rains fell. Shortly afterwards the blossoms withered and fell, and the leaves of apples, pears and quinces began to blight. The rains were succeeded by drought, which, in some sections, became severe. During the early part of the season the blight of the foliage increased, until, in July, when I inspected the orchards in several counties, there were thousands of acres of apple orchards which appeared to be dying. In many places the blackberries and later raspberries, in some sections, dried up and the bushes looked unhealthy. It is probable that similar injuries extend, in a greater or less degree, to all parts of north America.

It is an almost universal opinion among growers that the weather is responsible for the general failure, particularly in the case of apples, where failure is the most complete and disastrous, and which were just out of the bloom when a prolonged storm, of unusual severity and accompanied by lightning, passed over the country. It has long been supposed that cold and heavy rain at blooming time will prevent fertilization of the flowers, and the idea seems universally accepted. Yet I know of no reason for thinking it generally true, or at least of sufficient moment to account for the failure of a crop. There are not only strong general reasons for doubting the notion, but several minor observations are also against it. For instance, two Seckel pear trees, equally exposed and of the same age, both of which bore a heavy crop last year, stand but a rod apart, and were in bloom at the same time: one has no fruit and the other is loaded. We have all observed good crops of fruit in years when heavy rains fell at blooming time.

In undertaking to determine why blossoms fail to set, it should be borne in mind that fully four fifths of the flowers of apples and pears fall naturally. The flowers are borne in clusters, yet the fruits are usually borne singly. The redundancy of flowers appears to be nature's method of insuring fertilization, by increasing the amount of pollen and multiplying the chances of success. The blossom which is strongest, or which gets the best start, whips aside from its position in the cluster, appropriates energy to itself, while its neighbors fail.

In most cases the apples had set and were about the size of small peas when they began to die. They withered, turned brown and fell. The date of attack varied somewhat in varieties which bloom at different times. The Greenings died before the late flowering sorts, but all were attacked at about the same period of growth. At the same time, the young leaves began to look unhealthy, and they rapidly assumed a blighted appearance. Most growers assert that those trees which bloomed most profusely were most attacked by the leaf blight. Three or four years ago a similar falling of flowers and blighting of foliage occurred, at least in some parts of Orleans county. In that case, however, the attack is reported to have been a little earlier, and the flower clusters often fell off entire. The meteorological conditions were similar in both years.