FARM & GARDEN

LATE TURKEYS.

While it is generally an advantage to have the turkeys hatched as early as it can be done safely, there is no need to feel discouraged about those that come later in the season. Last year we had a brood hatched as late as the middle of August by a hen which stole her nest and then looked after her brood to such good purpose that three months later they came up to the barn with the rest of the flock in better condition than some hatched a month earlier and on whose bringing up we had expended our best care. We did not market these late birds until after the Christmas holidays, but they brought a better price then than the early hatched birds sold for at Thanksgiving, when the market was swamped by an enormous supply of birds, fit and unfit, which many turkey raisers have mistakenly rushed forward.—New York World.

GRUBS IN A COW'S BACK.

These large white grubs are the larvæ of the cattle bot fly, known as hypodermä bovis, a large fly that buzzes around cattle in the months of July and August, laying its eggs on the hair as does the horse bot fly. The cattle, licking themselves, take off the eggs, which are swallowed, and turning to small grubs in the stomach they begin to bore their way through the stomach into the muscles of the back, where they lie, breathing through a small hole made in the skin, and living on the pus secreted in consequence of the irritation caused by them. They will soon force their way out of their burrows in the cows, and fall to the ground, into which they bore their way and change to a pupa or chrysalis, changing to the fly in the late summer. To kill them at this time of the year, squeeze them out of the hole and crush them. If this is not done easily, enlarge the whole somewhat by cutting with a sharp knife. If this were done by all concerned, there would be an end of this pest, which it is said, damages the hides of cattle to the extent of $20,000,000 yearly in the whole of North America.—New York Times.

INFLUENCE OF CLIMATE ON FOLIAGE.

Professor Strasburger is one of those eminent European botanists to whom students in plant life have looked up to as among their greatest teachers, and it is therefore with some surprise that Americans read a recent paper of his in connection with the influence of climate on the structure of leaves. He takes for an illustration the European beech. He says that when the beech produces its leaves in the deep shade of the forest, they are larger and finer than the leaves of the same tree exposed to full sunlight, and from this he deduces a general principle that abundance of sunlight to a dry atmosphere is the reason why leaves are thick and small. Yet it has been for over a quarter of a century placed on record and admitted as an undeniable fact that, in the case of allied species of European and American trees, the leaves of the American are larger and thinner than the leaves of the European. The American linden has larger and thinner leaves than the European linden. So has the American sweet chestnut, American oak, American buttonwood or sycamore, and, in fact, all American trees that have close European allies. And yet no one will contend for a moment that the English climate is dryer, or that there is more light or more long-continued sunlight in England than America. It is unfortunate when great authorities like Strasburger attempt to found great scientific truths on such slender materials.—Meehan's Monthly.

MAPLE SUGAR.

In the last issue of the Experiment Station Record, Volume 7, No. 2, some interesting data are given concerning maple sugar and sirup, which were taken from the New Hampshire Experiment Station Bulletin No. 25. Messrs. A. H. Wood and F. W. Morse reported their conclusions based upon the analyses of twenty-six samples of maple sirup and of nineteen samples maple sugar. Their conclusions are given as follows:

Experiments in letting sap stand for several [illegible] before boiling, filtering sap, and [illegible]oid and slow evaporation had no [illegible]sive effect on the composition of [illegible]e sirup.

The s[illegible]ps from soft maples were somewhat inferior to those of rock maples both in color and flavor.

Boiling the sap did not seem to affect the color of the sirup, but injured its flavor. Sap that was kept five days and then boiled gave one of the lightest colored samples produced.

The rapidity of boiling had little influence on the color, samples of sirup from saps that we allowed to slowly simmer away being as light colored as those from similar saps boiled rapidly.

The lightest colored samples were produced by boiling a quantity of sap until finished, without addition of fresh sap. One sample produced by boiling two quarts of sap in a large glass beaker until it was thick sirup, without addition of sap and without skimming, had little more color than the sap from which it had been made. This sap was from covered buckets, and was thoroughly strained through cloth before boiling.

Sap filtered through quartz sand produced a sirup in no way superior to the preceding, while one filtered through boneblack lost almost entirely the characteristic maple flavor.

Sap mixed with rain water gave a sirup objectionably dark colored.

Dark sugars contained less saccharose and more reducing sugars than light sugars, and had a much lower purity coefficient.—Scientific American.

SELECTION OF APPLES FOR PLANTING.

In the selection of varieties of apples for planting a commercial orchard, the wants of the market where the fruit is to be sold requires consideration. In localities near to large towns where usually a quick and steady market can be found for summer and autumn apples, early varieties will be found most profitable for the reason that early varieties come into bearing young, are more productive, and are handled with less trouble and expense. Early sorts are quickly perishable and cannot be held over for future sales as readily as winter varieties, in case of a glut in the market.

Few varieties of apples have a wide general adaptation for commercial planting. The intending planter of an orchard can do no better than consult his neighbors who are practical fruit growers and find out what varieties succeed best and pay the most dollars with them. Sometimes a variety with only a local reputation, known only within a limited range of territory, succeeds far better within its range than any of the standard sorts. Where such varieties have been well tested and can be obtained, plant a fair proportion of them. As a rule, it is better to purchase nursery stock propogated as near as possible (other conditions being equal) to the place where it is to be finally planted. It sometimes requires a number of years for young trees to recover, if they ever do fully, from abrupt changes in climate and soil. If trees are to be procured from a distance it is better to buy those grown farthest to the north in preference to those grown to the south.

Buy nursery stock direct from the grower when possible, as there is less likelihood of getting varieties not true to name. Varieties sometimes get unaccountably mixed and mistakes often occur with the most carefully nurserymen. When stock passes through the hands of one or more dealers who generally know little and care less about names, the danger is still greater. Insist on receiving the varieties ordered and do not let the nurseryman substitute some other variety "equally as good" that you know nothing about, for nine times out of ten it will be a sort that nobody cares to know anything about.—American Agriculturist.

FARM AND GARDEN NOTES.

A great deal of soft corn is given to hogs which might much more profitably be given to cows that are giving milk.

There is considerable nutrition in the succulent cob of soft corn, and this is lost when the pig gets it. Give it to the cows.

Sweet corn can be readily saved for seed, even while green, if the ear is cut from the stalk and hung up to dry. It is still better if exposed, with the husk stripped from it, but attached to the butt, to a temperature of 120 degrees.

It is the usual practice because most convenient to roll fields by going around the whole or dividing into separate lands. But there are frequent occasions, especially in the fall, where one part of a plowed field is better for being rolled, while other parts do better if left rough as the drill or drag has filled them.

Hogs get too much corn on most farms. They will fatten better on a more varied ration. Cows rechew all their food, and will waste very little if they are fed soft corn. It is an excellent food to make rich milk, though of course care must be taken not to feed enough to fatten the cow. This rarely happens when the cow is a good milker.

Objectionable trees are killed in the best way by stripping the bark from them for a few feet from the ground just when the foliage is fully expanded in the spring. Leave the tree stand as it will, then continue to draw on the store house of the roots for supplies, without adding anything to it. When fall comes the roots are exhausted, and if the trees be cut down then no sprouts are likely to succeed it.

All food is composed of certain well-defined elements or compounds. Milk and flesh—including in the term flesh all that goes to build up the body of an animal—milk and flesh are roughly composed of the same elements, and if an animal takes a certain portion of its food to make milk, so much less is available for making flesh. It seems to us that we must take our choice, one or the other. We cannot have both in the highest perfection.

MAKING UP A TIME-TABLE.

MOVEMENT OF TRAINS PLOTTED OUT ON A BLACKBOARD.

Pins Represent the Exact Starting Time and Arrival of Each Train —The Use of Strings.

TO the average man a railway time-table is a more or less perplexing thing, from which the desired information can only be wrested after much careful study. Even when all seems plain sailing a little asterisk often carries the traveler to the bottom of the page with diabolical glee, and there informs him that the train upon which he has set his heart runs only Sundays, or does not run Saturdays, or in some other way upsets his plans. Railway men say that time-tables are simpler than they were ten years ago.

The operation of making up a time-table is a comparatively simple one as pursued by most roads. As a rule, the passenger time-table is made up twice a year, for the summer and winter seasons. In the General Superintendent's room in the Grand Central Station there stands a huge time board, which has made up a great many tables for the New York Central and Hudson River Railroad. It occupies half one side of the room, and extends from the floor to the ceiling. Upon it are ruled vertically twenty-four heavy black lines, the space between each of which represents one hour. Between these are smaller black lines, which cut the hour up into spaces of five minutes each, the quarter-hours being green and the half-hours blue. From the bottom of the board, extending upward, the names of all the stations on the line are printed along the side. They are at varying intervals, corresponding to the distance in miles between each station. From each station a heavy black line runs horizontally across the board. When a table is made up, a pin is stuck in the interval at the bottom of the board, representing the exact time at which each train start. Another pin is placed at the [illegible]rval representing the time at whic[illegible] it will arrive. A string is then stretched from one pin to the other, and represents the passage of the train. The points at which the string intersects the horizontal lines leading across the board from the different stations represent the time at which it will pass each station.

Trains running into New York are represented by strings running from left to right, and those going out are shown from right to left. Supposing it is desired to start a train from New York at 4 o'clock which will arrive at Albany by 8 o'clock, a pin is placed at the 4 o'clock line at the bottom of the board and another at the 8 o'clock line opposite Albany. All the horizontal lines cut by the string which stretches from pin to pin will show the time of arrival at each station on the route. The faster the train the nearer to verticle is the string, while the slower it is the greater angle will the string make with the horizontal lines across the board. When the trains are all placed on the board it presents a perfect network of strings. Intricate as it appears, a finger can instantly be put upon the time of arrival of a train at any given station. The movements of all trains are thus shown for the whole twenty-four hours, and any discrepancy is immediately apparent, such as trains running dangerously close together.

This simplicity is only found on roads with four or six tracks. Where there is only a single track, the board is much more complex. As soon as the tables are shown on the board, and everything is seen to be all right, the results are printed in the time-tables, and the board is rarely used until another table is make up. Where there is only one track the strings are always kept on the board, which is in constant use.

Freight trains are not often run on regular time. They are generally sent out by the train dispatcher as soon as they are made up and the road is clear. Some freights are, however, run on regular time, while the others, called extras, have to get along when they can, sidetracking when they would be in the way of passenger trains.

All the calculations on the big time board are made upon the assumption that the train travels at a uniform speed throughout. When the rate of travel is not the same, owing to heavy grades or the like, allowances have to be made at those points where the speed is lessened. The use of this board is not necessary when local trains are temporarily put on or off, and it is fully strung up only twice a year.—New York Tribune.

An Earthquake at Sea.

A severe earthquake at sea was experienced by the schooner Mary Buhne, which arrived at Port Townsend, Wash., from Oonalaska a week ago. The Captain says that on October 24 the sea was smooth as glass, when suddenly the vessel reeled and shook violently, the water was uplifted, and for almost two minutes the schooner was strangely shaken by the odd disturbance of the water. Next day the vessel passed through a large area of apparently muddy water.—New York Sun.

ALASKAN BOUNDARY DISPUTE.

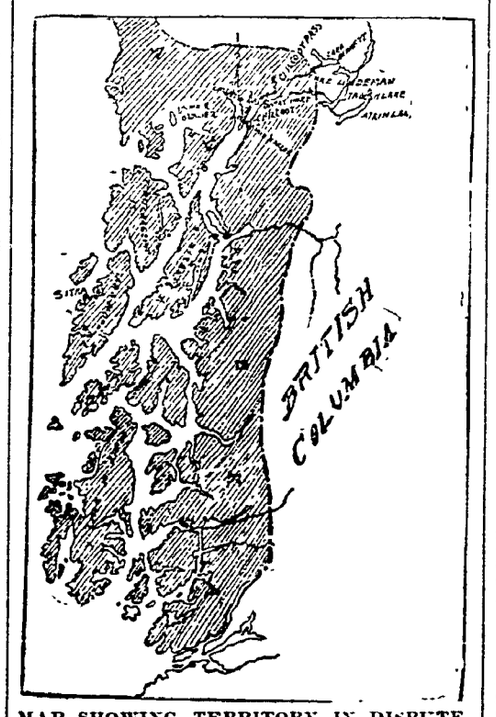
England Seeks Easy Access to the Rich Yukon Gold Fields.

The time is not far distant when, for the fourth time, the United States will become involved in an international boundary dispute. This time it will again be with Great Britain, and the question at issue will be the exact location of the boundary line between southeastern Alaska and British Columbia. When the Russians transferred Alaska to the United States in 1867 it was understood that the question of boundary was definitely settled. The authority for this belief was the treaty between Russia and Great Britain, made in 1825. In this treaty it was agreed that the boundary of southeastern Alaska should be on the south, the line which later in the administration of Polk became so well known in the popular expression: "Fifty-four forty, or fight." From Portland Channel, which indents the coast at this point, the line extending north always ten marine leagues from the ocean. The western boundary of the main body of Alaska was fixed at the 141st degree of west longitude, placing it forever beyond dispute.

Since that treaty the question of boundary has not been raised until within the last few years. When Secretary Seward paid Rusia $7,200,000 in gold for what was then popularly supposed to be an arctic wilderness few people thought that the vast area of land would ever be of sufficient importance to even lend dignity to an international dispute. But since two of its smallest islands alone have controlled the sealskin supply of the world and its salmon fisheries have supplied the market and gold mines have been discovered in Alaska, the people of the United States have been slowly forced to acknowledge the wisdom and foresight of Lincoln's Secretary of State in acquiring this valuable possession. Not so slow has England been in realizing the situation and the possibility of her gaining control of the interior gold fields.

The United States asserts that the boundary line runs parallel to the winding of the bays and inlets indenting the coast, always ten marine leagues from salt water. The two constructions held to by England are: 1. That ten marine leagues from the ocean means that distance from the outer coast line of the many islands along the coast. In this case the line would in many places not even reach the mainland. Another English construction of the treaty is that the boundary should be measured from the general coast line of the capes and points of land of the mainland. The claim of the United States is simply for a strip of land thirty miles wide extending from the main body of Alaska to Portland Channel.

What England really wants is a seaport at the entrance of the interior



MAP SHOWING TERRITORY IN DISPUTE.

country. All her claims to the southern boundary are but a cloak to cover her real design. Once established at Taku Inlet, or the head of Lynn Canal, England will hold the key to the vast interior gold country. These two inlets are to the interior of Alaska what Gibraltar is to the Mediterranean. Along the unbroken coast they are the only openings through which it is possible to reach the Yukon country and the interior. There can be little doubt that by setting up the southern boundary claim England hopes by a compromise to obtain seaports at one or both of these inlets. In the controversy England can lose nothing she now possesses, but hopes to gain valuable territory

Not Crowded Out Altogether.

Not satisfied with afternoon parties, to which no men are admitted, the Atchison women are now giving 6 o'clock dinners without men. Later in the winter the women propose to give evening parties without men. Men, however, are still permitted to act as pallbearers.

Long Words.

The longest word in the dictionary is palatopharingeolaryngeal. The next longest in transubstantiationalist.

Professional Cards.