



INDIAN SUMMER.

BY M. H. COBB.

It has been said, (as common-place as truly,)
That "even a cat may growl upon a king,"
Likewise, perchance, who chooses so, is duly
Licensed, of hackneyed themes to rhyme and sing
Therefore I sing of that which, out of view, lay
Just before the fall-wind came to fling
The crisp, dead leaves about—a welcome comer,
June's late-born peer and sister, Indian Summer.

'Tis but a narrow rift in Autumn's clouds
Thro' which thy softer skies just now appear;
A burst of sun-light thro' the gloom that shrouds
Thy charms, O, second childhood of the year;
For thou dost type the second birth that crowds
The young child's cradle on the old man's bier,
And there is healing in thy balmy breath,
Which robs the garner of the reaper, Death!

We seem in gentle dalliance with June—
With June the blue-eyed, June the Summer queen;
With thy blue skies o'er canopied at noon
Both field and forest in their Autumn sheen;
And tho' the birds come not as then, to tune
Nature's great harp, and sanctify the scene,
We lose thee not the less; each has its time,
June with its birds and Autumn with its rhyme.

The latest joy we mortals love the best:
Summer's last hour is lovelier than its first;
The mother clasps her last-born to her breast—
Most precious heart flower that she ever nurs'd
The miser drops his last gain in the chest
A; best of all, (and yet 'tis most accursed),
So, in thy arms we see the year decay,
Loving it better as it fades away.

[From the American Agriculturist.]

How Linseed and Cotton Seed Oil, and Oil Cake are Made.

The cultivation of flax belongs to the age of homespun, and has gone by, as a general crop in this country. Fifty years ago it was common on almost every farm, and the brake, the hatchel, the swingling board, and knife, were as much farming tools, as the dung fork and the plow. In-doors were the spinning wheel for flax, and the loom, where the linen and tow cloth were made for Summer wear. Flax seed was then abundant, and oil mills for pressing the seed were to be found at convenient centers. But many of the present generation have never seen such an establishment, and have no idea of the process of making linseed oil. Though flax is still raised in this country in particular localities, the crop does not meet our demands. Large quantities of seed are imported, from Russia, England, and the British East Indies. In the year 1855 over a million bushels were brought to this country from the British East Indies alone.

In making the oil, quite a variety of machinery is used—more or less expensive, according to the enterprise and capital of the manufacturer. The seed is first passed through iron rollers, to be crushed or ground. One of these rollers is made to revolve more rapidly than the other, which subjects such seed to a pulling, as well as crushing process. The meal is taken from the mill to the "chasers" where it is subjected to another crushing process, more severe than the first. The chasers are two large circular stones, about five feet in diameter and eighteen inches thick, rolling upon a third stone, in the manner of an old fashioned bark or cider-mill. These heavy stones start the oil from the meal, and to keep it from adhering to the chasers, it is moistened with water.

The meal is next put into an iron cylinder which is kept revolving over a fire until the water is evaporated. Much of the skill in the art of making oil depends upon this heating process. It must not be scorched, and yet it wants to be brought up to a high temperature, so that it will readily give out its oil. The presses are of various structure, some of them patented, and others not open to public inspection. In the one that we saw, the vats or hoops, holding about two bushels each, were placed opposite each other against two immense beams, or uprights, made fast in the foundations of the building. The followers were forced down upon the meal by two large levers worked by hydraulic power. The meal is kept under pressure about an hour, and the two presses work up about ninety-six bushels of seed every twenty-four hours. The mill is kept running night and day for six days in the week. The product is not far from two gallons of oil to a bushel of seed, a little more or less, according to the quality of the seed and the skill in pressing. The cakes as taken from the press, are sometimes sold by the ton without grinding. They are generally exported in this form. When there is a market in the vicinity of the mill, the cakes are put under the chasers, and ground into meal, bagged, and sent to feed stores. The price of the cake is from thirty to forty dollars a ton; ground into meal, it retails at about two dollars a hundred pounds. This is the favorite feed for fattening stock with the British farmer, and ought to receive more attention among us.

The process of making the cotton seed oil and cake is nearly the same. The seed of the Upland cotton is surrounded with a husk to which the cotton adheres. It is covered with a soft down after it leaves the gin, and in this

condition it is purchased from the planter. The seed makes better oil and better meal when it is deprived of this hull and down. There are several patents for decorticating the seed. One is a stone mill, in which the seed passes between rough surfaces and the bark is rubbed off. Another is a steel mill doing the work more perfectly. After the hulling, the treatment of the seed is the same as linseed. The yield of oil is less, being about ninety gallons to a hundred bushels of the Sea Island, or two gallons to fifty-six pounds of the hulled cotton seed. The Sea Island seed does not need hulling.

The cotton seed oil is comparatively a new article. It has not yet a steady commercial value. The meal is growing in favor as an article of fodder. It is adapted to the same uses as the linseed meal, and is by many thought to be as valuable, though it sells for about twenty-five per cent less. The manure made from the animals fed upon it, is richer in ammonia than that made from any other kind of stall feeding. There is already a considerable demand for it in England, and it can not be long before the export will exceed that of the linseed oil meal.

Selection and Management of Dairy Stocks.

From the report of the Committee of the Massachusetts Board of Agriculture on Cattle Husbandry:

The general aspect of the dairy animal is thinner, sharper and more angular than a feeding animal. When selecting dairy cows, we should look for a wide chest, small head, wide between the horns and eyes, small muzzle, thin, slim neck sweeping smoothly into the shoulders, at the withers thin, back straight, hips wide, and wide in the pelvis, and deep in the flank, ribs a little flat, belly somewhat large, udder large, extending well up behind and forward, her general appearance delicate and feminine; but, after all signs, the best recommendation a dairy cow can present is a list of a long line of ancestors that have been famous for milk.

Heifers may come in at two years old, but are enfeebled in health and constitution by the practice, and will not hold out in the dairy to so great an age as those that come in a year older.

The best dairy bull should have a broad, short head, horns spreading from the side a little in front, and turning upwards, back straight, a little sharp at the withers, widening backwards to the hips, slightly sloping rump, belly large and legs short and fine, tail long and tapering, with a heavy bush of hair at the end.

Much of the profits of a dairy cow depends upon a plentiful supply at all times of rich food. The variation in the quantity of milk they yield is principally owing to the difference in the nutritive quality of the food they receive. Cows receiving food poor in alimental matter fall away in milk. Add to the nutritive properties of their food, and they immediately increase their flow. The quantity of milk then does not depend on giving a particular kind of food, but on giving a quantity equal to the support of the natural waste of the body, and leaving a remainder to be converted into milk.

Farmers err very much when they undertake to keep more cattle than they have means to sustain in the best condition, especially in winter. The result is—their cows come out of the stable in the spring weak and feeble, and struggle through half the summer before they are in a condition to yield milk in quantity more than equal to paying expenses. Dairy cows should at all times be in good condition. They should receive their food at regular intervals; their milk should be drawn at stated hours, and by quiet, gentle milkmen; and they should be treated at all times with the utmost kindness. In short, every means in the power of the dairy farmer should be used to insure their tranquility. Harsh treatment exerts a very injurious action on their milk, rendering it less buttery, and more liable to acidity.

Respiration is a specie of combustion. At every breath we inhale oxygen of the atmosphere, which unites with and consumes the carbon or fatty matter of the food. When cows are worried or driven too rapidly, they breathe more frequently, inhale more oxygen, and more of the buttery portion of their food is consumed, leaving less to be converted into butyraceous milk. Warmth is a substitute, to a certain extent, for food. Cows, when warm and comfortable, will consume proportionately less food, and it is well known to all experienced dairymen, that their cows yield more milk in warm, pleasant days, or when they have the run of a warm, well sheltered pasture, than on cold rainy days, or when they run in cold, bleak pastures. When cold, they inhale more oxygen; the result is a combustion of more of the carbon or oily part of the food and less remains to supply the lacteal vessels with rich milk.

Sorghum Sugar.—A letter to the *Sun*, from La Salle county, Ill., says that large quantities of Sorghum, or Chinese sugar cane, are now raised there and manufactured into a fine quality of syrup per day. It is estimated that 20,000 gallons will be made this season. One half goes to the farmer, and one half to the mill owner. A train of fifty-two cars direct from Detroit, arrived at St. Louis on the 19th October, loaded with Sorghum syrup, to be manufactured into sugar at the sugar refinery in that city. Each car averaged ten tons.

What Constitutes a Farmer.

The following, from the *Ohio Farmer*, contains some very excellent suggestions in relation to the science of agriculture:

The science of agriculture is made up of a whole group of sciences, whose theory and applications the farmer must understand and practice, if he would be master of his profession.

He must know something of Chemistry, to understand the treatment of the soil, and the composing and use of manures. He must understand Botany, to manage all the vegetables, grains and fruits which he grows. He needs Physiology and Medicine, to treat his animals well in health and sickness. If he has a thrashing machine, or mower, he needs some acquaintance with the principles of motive power. In the construction of drains, he must apply the principles of Hydrostatics, and to some extent of Hydraulics too.

We give these facts as illustrations of our meaning, not by any means as exhausting what might properly be said on this matter. The truth is, the farmer needs to be a bit of a genius in almost everything, if he would stand at the head of his profession.

It was not our purpose, however, when we penned the heading of this article, to say much on these grave themes. It was an humbler topic that tempted our pen.

We wish to exhort our readers to become well skilled in all the minor operations which the management of the farm and garden involves. What we mean, two examples will show:

Mr. A. is a farmer, and nothing else. If a strap breaks in a harness, he sends two miles to have it mended. If a horse's leg is bruised, he will not treat it himself, but sends for a farrier. His beehives need repairing, and he hires a carpenter to do what a very little skill would enable him to do for himself. He cannot even mend an old sled, or repair a broken-backed rake, without foreign aid. He is a good farmer. He keeps his implements in good condition, too, but it is at great expense.

Mr. B. is another sort of a man. He is as good a farmer as Mr. A. But he is limber and elastic too. All the little jobs about the house he does himself, or teaches his boys to do. He can roof a house; he can hoop a barrel, or he can dig and wall a well. He can build a sled, put a spoke into a wagon-wheel, graft or bud a fruit tree, or make a new harness out of an old one, with an awl, a waxed end, and a bit of leather. If he attends a fair, he sees the point in the improvements that are on exhibition, and he can apply many of them to his own work without any further aid.

We will go but little further. Our readers see what we are at. We hope they will themselves be, and bring up their sons to be, men who will have some skill in everything.

Here are some reasons for this recommendation, which we will give at the risk of making his article a little longer:

1. Almost every farmer will need this kind of skill. Not one in a thousand will live so near a village where there are skilled mechanics, as to be able to use their aid at all times. Fewer still will farm on so large a scale as to embrace all these trades in the force employed on their own grounds. He will need some skill himself.

2. Such skill renders its possessor more independent. The sense of such independence is a great comfort. Its exercise is sometimes a great advantage.

3. It saves a great amount of time and money. We knew a man who lost a whole day's time and several dollars in money in the following way:—A part of the harness was taken away. He had not enough tact and skill to repair it with a piece of a rein or halter.

4. It will develop talent in many persons, where it now slumbers useless and powerless. The exercise in mechanical skill furnished by the farm, has awakened the mind of many a youth, who has ripened into a noble and skillful mechanic or artist.

But we have said enough. Give the boys and girls a good chance to cultivate their powers in a practical way. You can never predict what treasures you will find.

Bee Raising in California.

The Nevada *Democrat* gives the following in raising honey bees in the mountainous regions of California:

We purchased five hives of bees, direct from the East, in February last. They were transferred to patent hives and kept at Oakland till May. From the most bungling carelessness nearly all the bees, together with a splendid display of eggs and larvae, were destroyed before the swarms were put down at our domicile. A week after their arrival not more than a pint of bees was left in all. These were put into two hives, and small portions of the unbroken comb were given them. During the first month it was a mooted question whether the insects would live or die; but finally the problem was solved in favor of life. The colonies increased so rapidly that in August two swarms were taken from one hive and one from the other. At this time we have five hives in good condition. The honey made from the mountain flowers is far superior to any we have tasted in the valleys. It is generally of a very white appearance, aromatic and rich. It is proper to state that at this season of the year, the bees frequently lose their queens, and considerable care is requisite to keep them supplied with the indispensable head of the family.

Large California Fruit.

The California papers have, during the last three or four months, been filled with notices of large specimens of fruit produced in that State this year. At the Agricultural fairs, many kinds of apples, pears, peaches &c., were exhibited of enormous size, and in various parts of the State, large fruit and prolific trees have been referred to, as evidence of the adaptation of the soil and climate of the Pacific slope to fruit raising, of which there cannot be any reasonable doubt.

A gentleman's garden is spoken of, in which a "Dearborn Suckling" pear tree, only five feet high, produced seventy-five large pears. In the same garden, trees of a year's growth of the Duchesse D'Angoulême species, not thicker than a walking stick, bore from twelve to sixteen pears. A Winter Neil, of the same age and size bore forty five, and a Bartlett, thirty-five pears, averaging in weight one and a half pounds each. A quince, four feet high, stem not larger than a common cane, had on it twelve large quinces of an average weight of one and a half pounds. The Marysville *Appeal* says that Mr. Briggs of that place, raised a pear of the Flemish Beauty variety that weighed twenty-eight ounces. Others nearly as large have been reported in other parts of the State.

A Forest of Fruit Trees.

The Editor of the *Appeal*, gives the following account of a visit to the orchards of Mr. E. C. Briggs, near Marysville, California:

The first enclosure we entered comprises about 160 acres, planted mostly with peach, apple, pear, cherry and quince trees, excepting about 20 acres which were planted last spring with grape cuttings. The peach trees in the field were set out less than two years ago, when they were rods no bigger than one's thumb; and now they have an average height of about twelve feet, and their trunks are about six inches through. They bore well this year, and another season will have a heavy crop. It is needless to say the soil is equal to any in the world.

Leaving this young orchard, we were driven into another one of nearly the same size but greater age, where the extensive variety of fruit trees had attained much larger proportions, and stretched in tall, thick ranks a mile in length, and so close together as to shut off all prospect of the outside world. Our party soon found itself—and lost itself—in a wilderness of fruit trees, and might have imagined that it had been suddenly transported to the parent peach and almond groves of the East. Mr. Lambdin lost sight of the other vehicles, which had entered the labyrinth with us, and drove through the fruitful grove bewildered for about an hour, the party in the coach, meanwhile, indulging in all sorts of jokes and merriment at its own expense.

Emerging finally, we were prepared for the statement from Mr. Briggs that the orchard contained 35,000 trees, and 8,000 grape vines—2,500 of the latter bearing—covering an area of 155 acres. This is the famous orchard from which Mr. Briggs has been deriving an annual revenue, according to his own published statements, of from \$50,000 to \$70,000.

Cultivating the Peach.

A writer, in New England, thus treats on this subject:—"There has been much speculation as to the decadence of the peach. Some, notwithstanding the negative evidence of meteorological tables, attribute it to a change in the climate; others to the unnatural method of propagation by budding, and others to the ravages of worms and insects. As far as the writer's experience goes, he is decidedly against cultivating the ground beneath peach trees. Those in his garden that were under cultivation have been exceedingly short-lived, while others, closely surrounded by green sward, and set out at the same time, are still in bearing order and tolerably healthy. A neighbor some years since set out an orchard of about a hundred peach trees, cultivating corn and root crops between. Most of the trees died within three or four years from the setting, and scarcely a dozen remain at the present time. When the trunks are closely surrounded by grass, they are seldom attacked by the borer.

Herb and Root Teas.—All herb and root teas should be made with the same care as green tea. Steep them in earthen, tightly closed, and use the drinks while fresh. Most nurses imagine that herb teas are boiled herbs. The infusions loose life as readily as green tea, by long steeping and exposure to air. Strain the teas before taking them to the patient, and do not let it become insipidly flat before it reaches them.

Corn Oil.—It has been well said, that a single year's crop of corn is worth more than all the gold of California. In addition to its other uses, it is now found that it produces a clear fluid, that burns without odor, affording a good light in an ordinary lamp for half a cent an hour. The corn oil is as clear and colorless as water.