THE ... GOLD CHI...
M. L. THOMAS, ...
...AND CLOUD, - - - NEBRA...

DAISIES.

She was a little Irish maid,
With light brown hair and eyes of gray,
And she had left her native shore,
And journeyed miles and miles away
Across the ocean, to the land
Where waves the banner of the free,
And on her face a shadow lay,
For sick at heart for home was she.

When from the city's dust and heat,
And ceaseless noise, they took her where
The birds were singing in the trees,
And flower fragrance filled the air,
And there their leaf-crowned heads upraised
To greet the pretty gray-eyed lass,
A million blossoms starred the road,
And grew among the waving grass.

"Why, here are daisies!" glad she cried,
And with hands clasped sank on her knees,
"Now God be praised, who east and west
Scatters such lovely things as these!
And my mother's cabin door
In dear old Ireland they grow,
With hearts of gold, and slender leaves
As white as newly-fallen snow."

Then up she sprang with smiling lips,
Though on her cheek there lay a tear;
"This land's not half so strange," she said,
"Since I have found the daisies here."
—*Margaret Eytinge, in Harper's Weekly.*

THE NATURE OF COMETS.

Prof. Benjamin Pierce's Theory—Full Brothers of Planets and Meteors—The Guesses of Aristotle and Seneca—The Electrified Train—Tailless Comets—How They Are Weighed—Their Orbits—The Nebular Hypothesis.

In the Lowell lectures of the late Prof. Benjamin Pierce, of Harvard College, published in book form under the title of "Ideality in the Physical Sciences," is a chapter treating of the nature of comets, from which the following extracts are made as being of special interest at the present time:

"The final stage of the nebular history is the congealed star, of which planet, satellite, comet and meteor are special forms, and which is destined to become again, at last, a chaotic mass. They are simultaneous in existence, and not belonging to successive stages of the history. Starting from a common origin, they have passed through a process of differentiation, and are fitted for different functions. They may all be regarded as bolides; and they fill the celestial spaces with every conceivable variety of magnitude, motion and physical aspect.

"The comet, from the strangeness of its appearance in the inaccessible firmament, has been the immemorial wonder and dread of mankind. It has been the beard or tail of some invisible monster. It has been the sword of some angry god. It has been the pen of the furies, writing in the book of fate the death of Kings, the fall of empires, the speedy coming of famines and pestilences and destructive wars. It has been a light which has filled the souls of philosophers with darkness. Even the great Aristotle, with his clear belief in nature and his contempt for superstition, could propose no theory which was not a tissue of gratuitous and inconsequent hypotheses. He thought the comet, with its regular motions, to be a phenomenon like the flitting and uncertain *ignis fatuus*, an exhalation from the earth.

"Nevertheless, even in cometology, where modern progress has been so essentially aided by the discovery of gravitation and the invention of the telescope, the instinct of the ancient thinkers achieved some memorable results. Passing by the researches of the Pythagoreans, we need only refer to the writings of Seneca in the first century of the Christian era. "I know," writes Seneca, "no nobler research, nor a more useful science, than that which undertakes the study of the stars; but to perfect this science is it not expedient to examine whether the nature of comets differs from that of the other celestial bodies? If we reflect on their motions, on their vicissitudes of rising and setting, on their light and brilliancy, we shall be struck with the analogy which we perceive between them and these other bodies. We need an exact history of the comets which have hitherto appeared; for it is their rarity of appearance which prevents our deciding upon the regularity of their movement. We are ignorant whether, describing fixed orbits, they do not reappear at periodic and determinate intervals of time." This was the prediction of thoughtful genius. Modern astronomy, profiting by the ancient suggestion, has demonstrated this, like many other truths. The dwarf of to day who stands on the shoulders of the giant of yesterday can see a greater distance than the giant.

"The perfect comet combines nucleus and train. The beauty belongs to the train, which is unsubstantial and temporary; while the mass and density reside in the almost invisible but permanent nucleus. The solid nucleus moves about the sun in a nearly parabolic orbit, obedient to the same law of attraction which governs the motions of any one of the planets; whereas each particle of the train moves in its own hyperbolic orbit, in consequence of a repulsion from the sun often two or three times as great as the ordinary solar attraction. These particles of the train are electrified bodies, and have the same electricity as that of the sun; the particles which are most highly electrified advance to the front edge of the tail, while those that are the least electrified fall back to the rear. Some of the particles are electrified just enough to balance the solar gravitation; so that, after separating from the nucleus, they become neutral to the sun's action and move uniformly in straight lines, but without ceasing to be part of the tail. The particles which are less highly electrified remain attracted by the sun, but move in hyperbolic orbits—in the opposite branch of the hyperbola, however, to that in which the repelled particles move.

"This theory, in an imperfect state, was rudely applied by Bessel to the tail of Halley's comet, in 1835. But the comet discovered by Donati, in 1858, offered as fine an opportunity as can be desired for its full verification. How grand was the beauty of that comet! All the world stopped in the street, when it became visible after twilight, and wondered at it with bated breath. A few centuries ago it would have caused universal dismay, and men would have paled at the frightful portent. But the Christian of to-day beholds it as the loveliest messenger of divine wisdom. A multitude of observations were made upon the train as well as the head, in all civilized countries, and the theory of the train was sustained in every detail. The elegance of the shape strictly conformed to the ideal constructions of the geometer.

"If the nucleus of a comet were taken away, the train would continue to move off through space, undisturbed by the loss of its head. Singular as this phenomenon may seem, it has been actually observed. At midday on the 28th of February, 1843, groups of people in many of the towns of New England, especially at Portland, collected at the corners of the streets, gazing up toward the sun. Protecting their eyes in the shadows of the houses, they saw a brilliant object a few degrees from the sun. Such a marvelous spectacle had never before been beheld. A few days later a wonderfully brilliant tail of a comet was seen skirting the horizon soon after sunset, and reaching more than one-third of the way

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THE ...

...ch... which ... verse co... no! The c... ...s tail behind it, ...ow a new tail as it receded ... ...e sun. There were thus two tails, nearly side by side stretching from opposite sides of the sun in nearly the same direction. The new tail began at the head of the comet; whereas the old deserted tail began without any head at some distance from the nucleus, and extended further from the sun than the new tail.

The nucleus of the comet is surrounded by a mist, which is called the *coma*, or hair; the name comet signifying a hairy star. The height of the coma above the nucleus depends on the mass of the nucleus, and gives the measure of its weight; or, more exactly, the least limit of weight which will suffice to maintain such a height of atmosphere. The nucleus is usually so closely surrounded by the dense mist that its diameter cannot be measured; but at times the mist rises, uncovers the nucleus, and leaves it with a sharp stellar aspect. The least diameter determined at such times may be larger than the actual one, but cannot be smaller. From the combination of mass and diameter, the density of the nucleus can be computed. In the case of Donati's comet, the diameter of the nucleus was perhaps not more than a hundred miles, while the height of the atmosphere extended to eighteen thousand miles. You may be surprised to learn that the corresponding density of the nucleus was at least equal to that of iron. What an unexpected contrast is here presented to the prevalent notions concerning the sun and the comets! The solid sun is reduced by science to the state of gas, while the substance of the ethereal comet is a solid and heavy metal.

In its approach to the sun, the surface of the nucleus is rapidly heated; it is melted and vaporized and subjected to frequent explosions; the vapor rises in its atmosphere with a well defined upper surface, which is known to observers as an envelope. Various envelopes, including each other, are often observed.

The electrification of the cometary mist is analogous to that of our own thundercloud. Any portion of the coma which has received the opposite kind of electricity to the sun and to the repelled tail will be attracted. This gives a simple explanation of the negative tails which have been sometimes seen, directed toward the sun. In cases of violent explosion, the whole nucleus might be broken to pieces, and the coma dashed around so as to give varieties of tail, and even multiple tails.

The relations of the comets to the solar system present an interesting and instructive study. With very few exceptions, their visible paths are so nearly parabolic, and the positions of their nuclei and centers of gravity so uncertain in the midst of their coma, that it is quite out of the question to obtain nice enough data to measure exactly the extent of their orbits, and ascertain how great may be their deviations from exact parabolas, and whether the deviations are such as to make them ellipses or hyperbolas. If an orbit is actually parabolic or hyperbolic, and if there is no decrease in the central attractive force as the comet approaches the sun, it must have entered the solar system from outer space, and cannot be one of our permanent partners. It will leave the system again, and we may never expect its return; unless, indeed, having passed through the circuit of other suns, after myriads of years, it reappears in an orbit entirely different from its former one, so as to afford no evidence through which it may be recognized. But if it moves in an ellipse, and does not leave our system, it will return in a sensibly unchanged orbit, through which it may be detected."

The astronomer is often asked, upon the announcement of a comet, "Is it a new one?" and the tone of the inquiry usually implies a feeling of satisfaction in witnessing the discovery of a new star. But it is just the reverse with the astronomer himself. He ransacks the records, hoping against hope that he may enjoy the good fortune of ascertaining that the new comet is an old one—old, at least, in the sense that it has been observed once before, but not twice. On its first reappearance a comet is certain to be loaded with the name of the geometric discoverer of its path. Its theory is computed; its future returns are rigidly predicted; its social position is definitely established, and it takes its place among the registered members of our constellation. But a comet may belong to our system, and yet go so far from the sun that the intervals between its periods of visibility may be as long as three hundred thousand centuries.

There are a few comets of which the nonparabolic character is evident at once. Their orbits are decidedly elliptical: their periods do not exceed a baker's dozen of years; and they are intimately related to the plants in their positions and direction of motion. Prof. Newton, of Yale College, has given a distinct and satisfactory explanation of the mode in which these comets were probably diverted from their original parabolic paths by the action of the planet Jupiter. It was a royal sport, and the final character of the cometary orbit was the natural termination of the game. These comets must be excluded from our general discussion.

Omitting them, we find nothing in the position of the other orbits which indicates relation to the solar axis of rotation or to the planetary planes of revolution. They are as uniformly distributed as if they had entered our system indifferently from every direction, and without reference to the prevailing motion of the planets or to their mutual organization. They are simply the largest of an immense swarm of meteors which are floating all around us—a swarm of which by far the greater portion consists of bodies too small to be seen by the light thrown upon them from the sun; and this invisible portion greatly surpasses, in number and even in combined mass, all the visible components of our constellation.

Returning to the original round nebula, from which the solar system was formed, we must suppose that it has gone through changes which are represented in many of the nebulæ. A central spherical portion seems to have concentrated into the sun and planets, leaving an outer spherical envelope, which was much slower in the process of condensation, and finally became an envelope of bolides. The natural orbits of the bolides were nearly circular paths, of which the sun was at the center. The variety of directions of the planes of the orbits was so great that they constituted a nearly uniform system, constantly approaching each other, and by their mutual heat producing explosions. They were thus broken up into an increased number of smaller irregular masses, such as we are familiar with in the meteoric stones. Thus we find all the varieties that exist among the bodies of the solar system harmoniously explained. Would it not be stranger than any fiction—would it not violate all physical analogies—if this ideal hypothesis of the meteoric structure of our system, sustained by such a mass of evidence, were not a close approximation to actual history?

Children at the Table.

Among the upper and middle classes of English society the practice of isolating children from the general family life is much in vogue. They have their nurses and governesses, are kept much in the open air, and spend more time in the country than in the city. Whatever dissipation the London season may bring to their elders, the effects do not reach the children. The little ones have their full amount of sleep, and eat by themselves and not with the family, while their food is plainer than that upon the tables of their fathers and mothers. To some extent this custom reaches to the lower classes.

A German child, on the contrary, sits or stands at the table with his elders and consumes his full share of food and drink, while frequently very little attention is paid to decorous manners.

A few American families, who have wealth sufficient to afford a large retinue of servants, accustom their children to the same table habits at least as do the upper English classes. Yet to have a child's table is far from being the American style. Some sensible fathers and mothers, while permitting their little ones at the same table as themselves, do restrict them to plainer food; and demand of them a quiet demeanor while in the breakfast or dining-room. To strictly carry out this system requires vigilance on the part of the parent, and no little self-denial on that of the child. To be constantly watching the movements of little folks will more or less break up the harmony of the meal, and to place palatable food before a child, of which it may not partake, is a frequent cause of demands and concessions annoying in the extreme. This can be avoided by having the children served in the nursery a half hour or more before the family meal, and if it is impracticable to hire attendants, the mother herself can sit at their table and serve them.

Possibly this arrangement might serve as an aid to check the rampant growth of "Young Americanism," of which we hear so much. Such a suggestion will undoubtedly shock many excellent parents, who firmly believe in little ladies and little gentlemen. But old heads on young shoulders are so much the fashion that the style is becoming somewhat stilted, and the element of reverence is fast becoming eliminated from the typical American character.

Children ought to be children, and not miniature men and women, and isolation tends to keep them so. Even at their own table their manners should be carefully watched, and all tendencies to greediness or ill-temper quickly checked.

If impossible or undesirable, for any reason, to make this family arrangement, then the children's place and rights and the family table should be carrefully respected, and a quiet, respectful deportment insisted upon.

Bibs are all but necessary for little folks. They should be large and tie about the neck with tapes. Brown or white linen of coarse texture make serviceable ones, or they can be made of gingham.

Cereals, milk and fruit should form a large share of their food, though there are exceptional cases in which meat in considerable quantity may be eaten with benefit by the child. Fresh berries or canned or stewed fruit is always preferable to preserved, and sweet baked apples invaluable. Simply cooked oaten meal, wheaten grits, hominy, rice, etc., and plenty of milk in sufficient quantity to satisfy hunger should never be denied a growing child. To one whose appetite has not become perverted, the wants or desires for food may be safely consulted, both as to quality and quantity. Habit will usually engender a regularity of appetite, yet a plate of graham crackers and some fruit placed on a side-table, and permission given to the child to partake of if very hungry, is not altogether a bad plan. And, judiciously trained, a child will not abuse the privilege.—*Christian at Work.*

Cutting and Curing Grasses.

While there are different times for cutting the different varieties of grasses for hay, the period of flowering is the general indication for the harvest to begin. At this season the saccharine juices that go towards forming and developing the seed are in the stalk and leaves, and if the grass is saved then it must in the nature of things be palatable and succulent. Another argument in favor of cutting grass before the maturity of the seed is that when the seed is permitted to develop the vitality of the grass becomes impaired, a heavier draft is made upon the soil and the meadow in consequence will sooner run out. To these inducements for early cutting may be added the important fact of a larger growth of the aftermath when mowing is done while the grasses are in blossom.

The general tendency is to cut the grass too close and many fine meadows receive serious injury therefrom, especially upland meadows. As a rule grasses that are cut two inches high will start sooner and thrive better than when shaved closer to the ground. Many farmers cut timothy nearly or quite four inches from the ground.

Analysis has proven that grass quickly dried in the sun, without being wet, produces the very best quality of hay, but little of its nutritive qualities having been lost in the curing process; hence the necessity of cutting meadows during fair weather. Practical farmers differ as to the length of time grass should be exposed to the sun and air previous to being housed. Some consider one good hay day sufficient while others require two and sometimes three days. Some prefer to let the grass lie on the ground just as it is left by the mower, while others cure it in the windrow and still others cure it in the cock.

These differences in the curing results chiefly from the difference existing in the curing quality of the various grasses. Clover, for instance, contains more water than other grasses, consequently it requires a longer time to cure properly. Timothy cures more quickly than herds grass, while the coarser grasses in turn require still longer time than herds grass. To sum up the matter, the secret of successful hay-making consists in curing grasses up to the point at which it will do to put into the barn and no more, in order to arrest the loss of sugar and starch at the earliest possible moment. During the early part of the season two days are often required for properly curing heavy grass. Later, when the grass is nearly ripe, it may be cured in one day.

Farmers generally agree that the curing of clover is better accomplished in the cock than in the sun, for the succulent leaves and tender blossoms of clover if exposed to a scorching heat are quickly browned and lose much of their sweetness. A plan largely practiced consists in mowing the clover in the early part of the day and letting it lie long enough to become wilted. Turn it once in order to wilt the lower side of the swaths and then throw it up in small but high, narrow cocks. After standing in the cocks two or more days, according to the weather, the curing will have been effected gradually and a valuable quality of fodder secured. Previous to storing in the barn the cocks should be turned over and exposed in an inverted position to the sun for a few hours to dissipate any dampness that may exist on that portion which lay close to the ground. Clover when stacked out in the field ought to be protected either with patent covers, thatching or a thick top-cover of wheat straw.

When meadow hay is to remain in the cocks an indefinite length of time care should be exercised in the formation of the cocks. These ought not to be too large, but built sharp at the top, with sides nearly perpendicular, and finally provided with cloth caps. Hay caps and tedders, by the way, can hardly be too highly prized by haymakers.—*N. Y. World.*

The Grain Weevil.

The weevil (*Calandra granaria*), familiarly known as wheat weevil, grain weevil and barn weevil, preys upon all kinds of grain in the bin and the corn-crib. This weevil being quite small, is liable to be overlooked, particularly in a dark bin. Its mode of operation consists in piercing minute holes in the kernel and there depositing its eggs, from which are hatched small maggots that eat out the heart of the grain. The danger makes itself apparent by a minute white dust spread over the grain and a peculiar odor that permeates the bins. On pressing a kernel between the fingers it crushes readily, exposing a mere shell partially filled with dust instead of a round, plump grain.

When possible avoid storing grain in bins that have been infected. When it is inconvenient to change the place of storage fumigate the granary thoroughly with burning sulphur. Fumigation should not only be done before the grain is placed in the bins, but repeated in the course of a month or two after it has been stored.

The larvæ of the weevils that are in the grain may be destroyed by heating the grain where one has ovens or kilns at hand for the purpose. A little kerosene oil poured into a tight barrel with grain is said to destroy the weevils, but this course is practicable when the grain is required for seed only, as the kerosene injures it for making flour. In addition to the precautions mentioned is that of changing the place of storage to a cool locality and frequently moving the grain from bin to bin.

The grain weevil is often confounded with the larvæ of the corn moth that also attacks stored grain, and with the orange-colored maggots of the wheat fly that are found in the ears of the growing wheat. The true wheat or grain weevil is a slender beetle about one-eighth of an inch long. This insect both in the beetle and the grub state injures grains. As has already been explained, the female deposits her eggs in the grain after it is housed, and the young grubs hatched therefrom burrow into the heart of the kernel. In due time these grubs undergo transformation and come out of the hulls in the beetle to lay their eggs for another brood.

To recapitulate, when possible avoid storing grain in bins that have been infested with this pest. If said bins must be employed, fumigate thoroughly with burning sulphur. If there are indications of the pest's presence, kiln dry the wheat and destroy them.—*N. Y. World.*

—The "sweet girl graduates" of Russia are having a hard time of it. General Ignatieff has issued an order directing all letters received at the Russian Colleges to be opened by the head of the establishment and handed over to the girls to whom they are addressed only in the event of their containing nothing of a revolutionary character. The "heads of the establishment" will be allowed to pass love letters; but they are particularly cautioned to exercise vigilance over these, "as Nihilists may be expected to attempt to convey their sentiments in the language of love."

Fruit.

Whatever the chemical process that converts sour fruit to sweet may be, it forms a pleasant and refreshing diet when eaten in proper quantities at proper times. It exerts a greater influence upon the young members of mankind than upon the mature, because the mucous membrane of the food canal is more susceptible to all influences in the one than the other, and so seriously disturbs the health of infancy, even if taken in very moderate quantities and at regular intervals of time. It does not possess much nutritious value. Its per centage of tissue-making elements is very small, so that its chief value as sources of nutrition, must consist of groups of non-nitrogenous materials, as starch, cane sugar, grape sugar, gum and pectine, and all useful elements in the animal economy. Its acids and salts correct the bad health induced by dried meats or those that have been preserved by common salt and consumed during a long period of time. In various other ways good, sound fruit, taken in proper quantities and at proper times, is healthy for all but the youngest members of the human family. Stale, decaying fruits do an immense amount of harm. Green and over-ripe fruits are nearly as disastrous to health. Their cheapness tempts the poor to purchase them, so that what this class do not pay in cash they pay in maladies not easily controlled.

All, but particularly children, who can get sound, matured fruit should eat a reasonable amount each day and not a large amount on one day and none upon the next; but eat it when we may, the harder sorts need thorough mastication, so that they may be readily and easily digested. Some fruits contain free acids that change the condition of the bowels from costiveness to looseness—a change that many persons need. Green and over ripened fruits contain a large amount of acids, that are restless and riotous, showing a strong inclination to ferment and disturb the waste canal. They form new chemical associates and create more disease and suffering than physicians can always check. Fruit comes with heat, so that we are not always sure, in hot seasons of the year, whether it is heat or an excessive amount of fruit that invites much suffering to come and stay.

We are now prepared to answer the question often asked, are fruits healthy? In adults and youth, the proper use of ripe fruit does conduce to health. An exclusive diet on fruit cannot meet the wants of the human body. The amount of nutriment is very small. The acids of mature fruits are not nutritious, but they correct the bad condition of the bowels in hot seasons of the year. They are largely composed of water, that is often needed to cleanse the food canal and the various ducts of excretion and thus promote health and growth. Few, if any, fruits are consumed for their healthy quality. They are chiefly consumed to gratify the appetite, but never to supply the means of growth and strength. A few fruits, growing in the torrid zone, may yield some plastic matter for building up the tissues. In hot seasons, some acidulous fruits are cooling and refreshing and so are useful to all who are under the influence of some inflammatory malady. To this class of fruits belong grapes and oranges that the sick, in their last extremity, may safely take. The great harm that fruit may do consists in consuming much on one day and none upon the next. The wise and useful way of consuming fruit is to give a small amount every day, and avoid those sorts that do not usually suit. All changes of diet are attended with some risk of disturbing the stomachs and bowels of infants. A mother should consider the condition of the bowels at the time when fruit is given and graduate the quantity accordingly, recollecting that nearly all fruits are somewhat relaxing to the alimentary canal. Even infants may have fruit when properly prepared. Roasted apples may be profitably given in habitual constipation. Apples stewed and mingled with light bread are often useful in the same condition. Raw apples scraped or thinly sliced easily digest and benefit the bowels.—*Prairie Farmer.*

HOME, FARM AND GARDEN.

—Grained wood should be washed with cold tea.

—Cut hot bread or cake with a hot knife, and it will not be clammy.

—In dropping medicine place the handle of the spoon between the leaves of a book.

—Meat can be prevented from scorching, during the roasting process, by simply placing a basin or cup of water in the oven. The steam generated not only prevents scorching, but makes the meat cook nicer.

—A good way to cook liver is to fry it in butter, with an onion cut in small pieces scattered over it. Cook slowly; when done add a lump of butter and a little flour; stir well, and turn over the liver. Serve with Saratoga potatoes.

—For general purposes on the farm, castor-oil, with a little kerosene added, is the best lubricator and preserver. For saws, mowers, buggies, etc., it furnishes more body, with less gum, than most oil. The amount of kerosene, if any, to be added, must be governed by the purpose for which it is designed.

—Drying Umbrellas.—Most people dry their umbrellas handle upward. This concentrates the moisture at the tip, where it is close, rasts the wires which secure the stretchers, and rots the silk. After the umbrella is drained, it is better to invert handle down, and dry it in that position, or, better still, not to spread it open, as nothing so quickly spoils its shape.

—Cherries intended to be dried must be first stoned, spread on flat dishes and dry them in the sun or warm oven; pour whatever juice may run from them over them, a little at a time; stir them about that they may dry evenly. When perfectly dry line boxes or jars with white paper and pack close in layers; strew a little brown sugar and fold the top of the paper over them and keep in a dry, sweet place.

—Apple Cheese-Cakes.—Take one pound of apples, boiled and pulped through a sieve, one pound powdered white sugar, the juice and grated rinds of three large fresh lemons, and four eggs well beaten. Mix these ingredients carefully, and put them into a saucepan in which you have a quarter of a pound of fresh butter melted. Stir it constantly over a slow fire for half an hour, and let it cool. Line pie dishes with fine puff paste, pour in the apple mixture, and bake, without upper crust, in a quick oven. Sprinkle with powdered sugar, and serve when perfectly cold.

—Very Fine Currant Jelly.—An equal quantity of white and red currants free from stems, leaves and dirt. Put into a white porcelain kettle with a very little water, just enough to keep the fruit from burning at first. Boil twenty minutes. Do not crush the fruit. Pour into a clean jelly-bag. Hang where the juice can run through, but do not touch or squeeze the bag. To each pint of this clear liquor add a pound of loaf sugar and boil in the cleansed porcelain kettle twenty-five minutes. Pass through another jelly-bag and pour into glasses. The bags can be well pressed out afterward and the juice therefrom made into an inferior jelly.

—Crystallizing Grasses.—Dissolve in a quart of soft water all the alum you can by heating and stirring—it may be a pound, it may be twenty ounces. Have the grasses divided into small bunches tied. When the solution begins too cool dip in the grasses, holding them there five minutes, three minutes, two minutes or one minute, according to size of crystals you wish. The cooler the solution the quicker the crystals form. When too cold reheat. I have used a glass jar to dissolve the alum in, heating it in a kettle of water with an old plate at the bottom to prevent the jar breaking. One can see through glass the crystals forming and so know when to take the grass out. Do not let the grass touch the sides of the jar.

—An ant bed on the lawn may be destroyed with hot water; stir up the bed and pour on boiling water; by pouring on strong brine they may be driven away, but as they might take up quarters as objectionable, it is always best to destroy them. When the bed is far enough from the house, and in a position to admit of it, they may be destroyed by building a fire around them, and when hot enough, with a hoe dig the bed up and thus burn them; when the bed is well dug out fill the hole with coals; in this way we have destroyed large beds; but near a dwelling hot water is the best, though it may require several gallons to make a sure thing of it. The small red ant's nest is easily destroyed in this way, but large ones, being at a considerable distance below the surface, must be so dug up as to let the hot water to the bottom before it cools.—*Massachusetts Ploughman.*

Good Summer Drinks.

Bits of cracked ice in a pitcher of water, when and where good, cool spring water cannot be had. Iced tea, with slices of lemon cut in; no sugar is needed, and no milk need be used. Coffee, ice cold, can be prepared in the same manner. Milk set on ice is good. Sour buttermilk, sweetened with nutmeg grated in for those who like it, is wholesome.

A Good Strawbery Sherbet.—Crush one quart ripe berries, add the juice of a lemon, two teaspoonfuls orange-flower water, and three pints water. Let them stand several hours, then strain over three-quarters pound sugar. Set in ice an hour or two before using.

Soda Water.—Take four pounds of coffee sugar, three pints water, three or four grated nutmegs, one ounce gum arabic, flavor to suit, and well beaten whites of ten eggs. Mix and heat over a slow fire a half hour. Take from the fire and strain, and divide into two parts. Put into one part eight ounces bicarbonate soda, into the other six ounces tartaric acid. Shake well. When cold put in three or four spoonfuls from each into separate glasses a third full of water, stir and pour together. Another ounce tartaric acid, one ounce bicarbonate soda, divide each into twenty-four parts. Dissolve in a tumbler half filled with water, add the acid and drink while effervescing.

Root Beer.—Sarsaparilla root and sassafras bark and wintergreen, equal quantities, some hops. Boil in water until the strength is extracted. To every three gallons of liquor add one quart molasses and a cup of yeast. Strain and bottle. It will be good for use in two or three days.

Mead.—One part honey, three parts boiling water, flavor with spices, add a little ground malt a piece of toast, and a small cup of yeast. Allow the whole to ferment.

Limes, lemons and citric acids are invaluable in preparing summer drinks. In lieu of them, the pressed juice from acid berries can sometimes be used.—*Christian at Work.*

—Mr. H. J. Barron, Secretary of the Swimming Association of Great Britain, writes to the London *Times* to urge the necessity of children being taught to swim "a good, straightforward breast stroke." In case a person falls into a heavy sea, a side stroke should be adopted, presenting the back of the hand to the dash of the waves. If, he says, a child is taught merely to "tread water," no doubt after a few lessons he will support himself; but he will not be likely ever afterward to learn to swim with a good stroke. But if a child is taught the breast stroke properly, he will learn to support himself in fewer lessons, probably, and as he gains strength and confidence in succeeding years will practice and become efficient in a great variety of strokes.

The Man Who Was Mixed.

"Really, but I hope you'll excuse the intrusion," said the shabby-looking man as the insurance agent looked up.

"You are excusable, sir. What do you wish?"

"Well—you see—I'm a bit mixed. Was it Napoleon or Washington who crossed the Alps?"

"Napoleon, of course."

"Yes, sir—thanks. I was inclined that way myself, but yet I knew that Gen. Washington was always scouting around and he might have taken it into his head to cross the Alps. Good day, sir."

He passed down the hall thirty feet, and then returned and protested:

"Say, don't think ill of me, but I am still mixed up—dreadfully mixed. Will you answer me one more question?"

"Yes."

"Was it Nero who commanded the sun to stand still?"

"No; it was Joshua."

"I had an idea that it was Joshua, but I didn't dare put up any money on it. Nero was always fiddling around, you know, and I had a dim idea that he might have taken a whack at the sun. Very much obliged to you, sir."

This time he went half way down stairs and returned on tiptoe. The agent looked up and saw him in the door and sharply queried:

"Well?"

"Mixed up again!" pleaded the stranger. "Say, I want to ask you just one more question.

"Did you ever lend a man a dollar to help him on his way to Columbus to see his dying wife?"

"Never! You are thinking of Old Diogenes. He used to shell out to every dead-beat who came along."

"Mixed up again, by thunder!" muttered the man, and as he passed down stairs he took great pains to set his feet on each step like a man who had a bet on three of a kind and found a flush taking his money.—*Detroit Free Press.*

—The hills of lofty endeavor and high achievement lie all around us, and if we never catch a glimpse of the views they afford, we need not complain that it is because of the insuperable limitation of our surroundings.

The Value of Competition in Business.

Competion forces every one who would achieve the highest success in any business to avail himself of all legitimate means to that end. A. T. Stewart started in a small way in selling dry goods—with increased capital, a wider experience as a buyer and a better knowledge of the wants and tastes of the public enabled him to procure specially intelligent labor. The public was well served and he was largely benefited by his enterprise. Look at another distinctly American industry: the primitive American stoves were clumsy affairs. To-day they are everywhere recognized as the best in the world for convenience, utility and beauty. Look at the great success of the makers of the CHARTER OAK STOVE! Starting in a small way in 1847, the business gradually developed and increased. To-day it is the largest factory in the world of its class, and brought to St. Louis a reputation for good stove-work which is now world-wide, more than 400,000 CHARTER OAK STOVES being in constant use, abundantly testifying to the fact that they are well worth buying, and making the homes of the people comfortable. (3-27)

CHILDREN should be warned not to take what doesn't belong to them—especially the measles and small-pox.—*Philadelphia Chronicle-Herald.*

A Lady's Wish.

"Oh, how I do wish my skin was as clear and soft as yours," said a lady to her friend. "You can easily make it so," answered the friend. "How?" inquired the first lady. "By using Hop Bitters, that makes pure rich blood and blooming health. It did it for me as you observe." Read of it.—*Cairo Bulletin.*

WHY is the house of a tidy wife like a motion to adjourn? You give it up? Because it is always in order.—*Lowell Citizen.*

How to Secure Health.

It seems strange any one will suffer from disorganization brought on by impure blood, when SCOVILLS' SARSAPARILLA AND STILLINGIA, or BLOOD AND LIVER SYRUP, will restore health to the physical organization. It is pleasant to take, and the BEST BLOOD PURIFIER ever discovered, curing Scrofula, Weakness of the Kidneys, Erysipelas, Malaria, all Nervous disorders, Debility, Bilious complaints and all diseases of the Blood, Liver, Kidneys, Stomach, Skin, etc. As a health renewer, it ACTS LIKE A CHARM.

BAKER'S PAIN PANACEA cures pain in Man and Beast. Use externally and internally.

DR. ROGER'S VEGETABLE WORM SYRUP instantly destroys worms and removes all the Secretions which cause them.

A Railroad Engineer

in the employ of the C. M. & St. Paul R. R., had been grievously affected with diabetes for six years. He took four boxes of Kidney-Wort, and now writes that he is entirely cured. Get a box or bottle and try it.—*Tribune and Farmer.*

"Rough on Rats."

Ask Druggists for it. It clears out rats, mice, roaches, bed-bugs, flies, vermin, insects. 15c.

REDDING'S RUSSIA SALVE is the universal remedy for burns, scalds, cuts, bruises, etc.

LIGHT COLORED or yellow Axle Grease soon wears off. Get the genuine Frazer.

USE National Yeast and be happy. Try it.

A CENT'S worth of harvest apples is almost sure to return $10 worth of sale.—*Detroit Free Press.*

ARCHITECT (to Mr. de Newyo Ritch, who is considering the front elevation of a projected residence): If you do not like those towers, Mr. Ritch, we can have them eliminated. Mr. de Newyo Ritch: They're real han'some as they be; but if 'liminatin' on 'em would make 'em han'somer, let's have 'em 'liminated.—*Columbia Spectator.*

ELECTRICITY can be put in a bottle and corked up. This explains why electricity is more popular than a Fourth of July orator.—*Texas Siftings.*

OCCASIONALLY, yes, very often, a woman is more than a match for a man. A farmer living in the outskirts of New Haven was in a hurry to get his farm work along, and went out into the field with his boys and hired man, entirely overlooking the fact that the last stick of wood in the woodpile had been burned to get the breakfast. Raging hungry the force came in at noon. The good wife had the table set with all the taste of which she was mistress, and it really looked inviting, but there was no dinner upon it. "Sarah, where's the dinner?" inquired the farmer somewhat anxiously. "I don't know whether it is done or not. There was no wood for a fire, so I hung it in the warmest place I could find. It's on the ladder at the south side of the house." The whole force was detailed at chopping wood that afternoon.—*New Haven Register.*

AND now an American fighting dog has won the championship of France. Is there any game Europe can play?—*Boston Post.*

"DO YOU sell Bibles and Testaments here?" inquired an elderly lady of the gentlemanly clerk in a bookstore. "Yes, ma'am. We have a fine variety. About what style would you like?" "I don't want any of the old ones. I want a *revised* Testament." Evidently she thought the whole business had gone backwards.—*New Haven Register.*

THERE are two possible things greatly dreaded by New Yorkers just now. One is a beer famine, and we have forgotten the other.—*Norristown Herald.*

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