WHAT KNOW YOU.

Oh you who read some songs that I have sung,
What know you of the soul from whence it sprung?

Dost dream the poet ever speaks aloud
His secret thought unto the thoughtless crowd?

Go take the pretty sea-shell from the shore—
You have its shape, and color—but no more.

It tells not one of those vast mysteries
That lie beneath the surface of the seas.

Our songs are shells—cast out by waves of thought.
Here—take them at your pleasure but think not.

You've seen beneath the surface of the waves
Where lie our shipwrecks and our coral caves.

—*Ella Wheeler, in Frank Leslies Magazine.*

Up in a Balloon.

It was the day of the annual fair in my town. Everybody knows the occasion when monstrosities gratify the morbid taste, and fascinating sweets allure the appetites and deplete the pockets of the younglings.

Having arrived at years of discretion, I passed by on the other side, and was walking leisurely homeward, when my attention was arrested by a mysterious inclosure, in the centre of which swayed to and fro a magnificent balloon, which made regular half-hour trips to a point just a quarter of a mile above the solid earth. Then I hesitated. To go up in a balloon was the one great desire of my boyhood. I had done almost everything else, and this last experience would be delightful. When quite young I was kicked over a fence by a wild colt, who returned my caresses with a very impressive pair of heels. I have several times been almost blown to pieces with gunpowder, that never failing fascination to every one in his teens. I have aimed a gun at a bird, and missing him, sent the ball within three inches of a man's head. I have been on the water in a small sailing boat, and then tipped over. In a word, I have done a thousand delightful things, all of which gave my father and mother sleepless nights, and made them feel that I was sure to die an untimely death. But here was a chance to add a new experience to my life; and as I saw the immense castle in the air swinging to and fro, all my boyishness came back, and in less time than it takes to tell it, I was inside of the inclosure, and in a few minutes more in the car of the balloon, with Professor Allen, the accomplished aeronaut.

The signal was given, and we began to rise. When we were about a hundred feet up, I would again have given all I possessed to be safely on earth again. Instinctively I clutched the ropes; but it did no good, for ropes and everything else were all going up together. Pretty soon I grew more courageous, and then thoroughly enjoyed myself. It was very cloudy, but I got a good view of the whole town. The tops of the houses were far below me, and the church steeples seemed slender as reeds. Just then the Professor engaged my attention with some of his exploits, and when next I looked could see nothing. We were in the middle of a cloud, and the men, the house, the town were wholly hidden from view.

"How far up are we, Professor?"

"Only about a quarter of a mile," he answered.

A quarter of a mile straight up! What if the balloon should burst through its lacings! In what shape should I appear after dropping twelve hundred feet or more? This pleasant thought would intrude itself. Only twelve hundred vertical feet. Well, that is not very much, and yet, if I should fall, I think the coroner's jury would have no difficulty in discovering the cause of my death.

It was a very queer experience. I looked up; nothing to be seen. I looked around; nothing to be seen. I seemed to myself to be as near nowhere as I ever hope to get. The mist drifted by me in a friendly sort of way, as if to reassure me, and as though it wanted to say, "My dear fellow, the Almighty is up here just as he is down there. We clouds roll and surge and dash our fragile spray in obedience to the same will that governs the more solid ocean. The hand that holds you in its hollow when you walk the earth, is underneath you when you have the clouds for your companions."

So, by degrees, I grew accustomed to my new position, and sat quietly enjoying not the scenery, but the situation, while the Professor told me of his exploits in France in the service of the army, during the recent siege of Paris. Away up beyond the reach of hostile bullets, glass and note-book in hand, he used to watch the movements of the Germans. How provoking it must have been to see a little black speck among the clouds, and know that at every parade a pair of sharp eyes were looking through a powerful telescope, while a "chiel taken notes" would report to the enemy what not even the most daring spy or sharpshooter could discover.

Well, after a while, desiring to see the faces of mortals once more, I indicated my desire to return to the planet. Slowly we descended; and just as on board a vessel you find your way through the fog until the headland, which at the first seemed only a ghost, assumes tangible and familiar shape, so, as I watched, the steeples and tops of houses came into view far below me, and in five minutes more I jumped out of the basket, and was conscious of a certain sense of relief when I felt good Mother Earth under my feet.

The Professor gave me a paper, certifying to the fact of my exploit, and assuring my friends that for the last thirty minutes I had been far above the planet; and I rushed home.

I had no sooner told my story at the table than my plucky little wife said, "Well, if you can go up in a balloon, so can I."

"You? Up in a balloon?" My eyes were wide open.

"Yes, I, and up in a balloon! Why not? After dinner I shall take a trip to the moon, or as near to that very respectable orb as I can get."

I suppose she would regard me as a fit subject for the lunatic asylum when I told her what I had done; but I found she only envied me my exalted position, and determined to go as much higher as circumstances would permit. Such is life, and such is woman.

I tried to reason with her, but who ever got the better of his wife in an argument? She had two reasons for to every one against.

"If she will she wi l, you may depend on't;
If she won't she won't, and there's the end on t"

Those two lines are the battle of freedom with the other sex, so I submitted with as good grace as I could extemporarily master.

When we reached the roadstead where the castle in the air was anchored, the sun broke through the clouds, and we were assured by the Professor that we should have a splendid view. After climbing into the car and taking our seats, the signal was given and slowly we began to leave the earth. There were the houses far below, presenting their roofs and their chimneys to break our fall in case of accident. The sad thought was that we should have to drop more than five hundred feet in a straight line before we could even lan on a chimney. We did not seem to be going away from the earth, but the earth appeared to be dropping away from us. The carriages appeared small enough to hang on one's watch-chain for charms; and as for the human beings, the effect of our elevation was very peculiar. We saw them, of course, greatly fore-shortened. They seemed to be not more than a foot or eighteen inches long. But when they walked we could see the full length of the stride. It was a very curious sight—men only a foot long taking steps three feet in length. The old seven-leagued boots seemed no longer a myth.

Pretty soon I caught the Professor emptying a huge sand bag.

"What is that for?" I said.

"To go up higher," he answered.

I looked at the little woman who sat beside me, and said, "Higher?"

A nod in the affirmative.

"There's pluck," I said in my heart; and in half a minute we could look down on the entire town, and, indeed, upon such a view we could hardly speak, so impressed were we with the magnificence of the great picture that lay far, far below us. To say that we enjoyed it, after the trepidation was over, is to speak in feeble language. Who would not enjoy sitting in the lap of a friendly cloud, and looking down upon miles of green pasture and throbbing towns?

But all excitement must end; so we took an affectionate farewell of the upper air and of the mists that brushed by us, and soon stepped again upon the planet, glad to have been for once "up above the world so high."

The Rings of Saturn.

It is clear that all the peculiarities hitherto observed in the Saturnian ring system are explicable so soon as we regard that system as made up of multitudes of small bodies. Varieties of brightness simply indicate various degrees of condensation of these small satellites. Thus the outer ring had long been observed to be less bright than the inner. Of course it did not seem impossible that the outer ring might be made of different materiale; yet there was something bizarre in the supposition that two rings forming the same system were thus different in substance. It would not have been at all noteworthy if different parties of the same ring differed in luminosity—in fact, it was much more remarkable that each zone of the system seemed uniformly bright all round. But that one zone should be of one tint, another of an entirely different tint, was a strange circumstance so long as the only available interpredation seemed to be that one zone was made (throughout) of one substance, the other of another. If this was strange when the difference between the inner and the outer bright rings was alone considered, how much stronger it did seem when the multitudinous divisions in the rings were taken into account! Why should the ring system, 30,000 miles in width, be thus divided into zones of different material? An arrangement so artificial is quite unlike all that is elsewhere seen among the subjects of the astronomer's researches. But when the rings are regarded as made up of multitudes of small bodies, we can quite readily understand how the early circular movements of all of these, at different rates, should result in the formation of rings of aggregation and rings of segregation, appearing at the earth's distance as bright rings and faint rings. The dark ring clearly corresponds in appearance with a ring of clearly scattered satellites. Indeed, it seems impossible otherwise to account for the appearance of a dusky belt across the globe of the planet where the dark ring crosses the disk. If the material of the dark ring were some partly transparent solid or fluid substance, the light of the planet received through the dark ring, added to the light reflected by the dark ring itself, would be so nearly equivalent to the light received from the rest of the planet's disk, that either no dark belt would be seen, or the darkening would be barely discernible. In some positions a bright belt would be seen, not a dark one. But a ring of scattered satellites would cast as its shadow a multitude of black spots, which would give to the belt in shadow a dark gray aspect. A considerable proportion of these spots would be hidden by the satellites forming the dark ring, and in every case where a spot was wholly or partially hidden by a satellite, the effect (at our distant stations where the different satellites of the dark rings are not discernible) would simply be to reduce *pro tanto* the darkness of the gray belt of shadow. But certainly more than half the shadow of the satellites would remain in sight, for the darkness of the ring at the time of its discovery showed that the satellites were very sparsely strewn. And these shadows would be sufficient to give to the belt a dusky hue, such as it presented when first discovered.—*Fraser's Magazine.*

A Frenchman on Borrowing.

"The borrower." A sketch by Aurelien Scholl, in *L'Evenement:* "The borrowing race is the noble race. A native pride, an instinct of sovereignity are apparent in the attitude of the borrower. He who lends is sad and thoughtful; the necessity of obedience is written on his brow. Born to be useful and to be used, he has in his aspect something humble and folorn contrasted signally with the constant good humor, the air of conquest, the amiable audacity of him that shears him. To the borrowing class belong all great Kings, ministers and women. From Alcibiades through Cæsar and Mirabeau the brilliant succession descends to the last rulers of France, Spain and Turkey. Health smiles on the borrowers brow; his faith in Providence is firm, and he is careless of the fluctuations of stocks. *Meum* and *tuum* those sources of all human contentions and miseries, are pleasantly confounded in his eyes. The present has no care for him the future can have but little. The earth is his and the fullness thereof, and he has only to enter upon his estates. Destroying vain distinctions invented by legislators, the man that lives by borrowing revives the original idea of community. He alone knows how to live; he is the only aristocrat of the universe."

AGRICULTURAL.

Why Plants Should Not be Kept in Bedrooms by Night.—About one-half the dry weight of plants is carbon, and this is all obtained from the carbon dioxide—or carbonic acid—of the air, which constitutes only .0004, or 1-2500 of its volume. It was once scientifically, and is still popularly, believed that plants, in respiration reverse the process of animals—that is, that they inhale carbonic acid and exhale oxygen. It is quite true that vegetation, as a resultant of its processes of life, does evolve oxygen and absorb carbon dioxide; but this is not in consequence of respiration. Plants, like animals, inhale oxygen, and yield up to the air a nearly equal volume of carbon dioxide: this chemical decomposition is performed by all the growing cells, and at all times alike. In addition to this, the chlorophyl cells have the property, under the controlling power of sunlight, of absorbing carbon dioxide from the outside air, of decomposing it into its constituent elements, of appropriating the carbon for the building up of tissue, and of liberating the now free oxygen. This is a process of assimilation rather than of respiration. The formation of carbon dioxide at the expense of the atmospheric oxygen, like our breathing, goes on continuously and gently, while the reverse process, analogous to the feeding of animal life, though continuous and powerful under the influence of light, ceases instantly when that is withdrawn. During the day the assimilative process by which carbon is absorbed and oxygen liberated is so powerful as to mask completely the gentler process of breathing; but at night, when assimilation ceases, respiration may be easily detected. For this reason plants by day purify, and by night vitiate, the air. A number of experiments made by the French scientist, Boussingault, prove that, as a final result of vegetation, far more oxygen is liberated than is consumed.—*Scribner.*

Buy Small Trees. — Nurserymen usually describe trees on their catalogues as "second class," "medium," "first class," and "extra." The difference in these classes is principally, if not wholly, in the size and height of the trees; and as most farmers desire the best, they suppose that the large "extra" trees merit that description, and hence order them. The fact is, however, that a small tree will grow faster and (if a fruit tree) come into bearing condition sooner than a large one; and, as the *New England Homestead* states, in half a dozen years the tree that was small when planted will be larger and finer than the other. The larger the tree, the larger the roots which it has, and the larger the roots the less fibres there will be upon them. A tree that has plenty of fibrous roots will grow readily if proper care is used in transportation; but no amount of skill can coax a tree to live and flourish which is destitute of these little fibres. The roots of large trees are always more or less mutilated in the process of taking up, while small trees sustain little injury from this source. Dealers in trees assert that experienced men buy small, thrifty trees, while those who are just starting are anxious for the largest to be had. Those who are to set trees the coming season will do well to learn from the experience of those who, at considerable loss to themselves, have demonstrated that small trees are the ones to buy.

Petroleum on Shingles.—In regard to applying petroleum to shingles to preserve them, a writer says: "It enters the pores of the wood at once, and as it hardens makes it more compact in texture, and rather less liable to take fire. The petroleum also prevents the surface of the shingles from rising in downy fibres or "fuzz" and it is, on the whole, not so liable to fire from sparks when treated with it. We have tried the experiment with shingles oiled some time previously, and find they are not so easily ignited by outside fire, although when once burning, they will, of course, produce more flame than the wood without the petroleum." Petroleum is also very good to apply to the iron work and steel of farm implements to prevent their rusting when not in use. The crude article costs but $3 or $4 per barrel—the price may be higher at present—and it is useful to keep on hand. When any outbuilding, or even your dwelling house, is to be painted, one-half the expense may be saved by applying a coat of petroleum with a fine whitewash brush, let it dry several weeks, and then put on one coat of paint, and by so doing a second coat of paint is rendered unnecessary.

Protecting Pear-Trees.—A correspondent from Pittsford, New York, asks: "Would it be advisable to thatch young pear-trees during the winter? I have some choice dwarfs that were put out last spring, and are now about 3½ feet high. They are located on a knoll or plateau where they get the full force of the north-west winds, which, blowing off our lakes, are quite severe during the winter." In case the trees have started an early growth, and the young wood is fully matured, there is no necessity for protecting the pear-trees by thatching. A late succulent growth of wood is often winter-killed; but when the wood is ripened, there is no danger from this cause in Monroe County. It would be good policy to plant some rapidly growing evergreens in the spring, such as Norway spruce or white pine, in a line ten or fifteen feet apart on the west side of the orchard. By the time the pear-trees come into bearing, this row of evergeens will be large enough to break the force of the wind, and save the fruit from being whipped off the trees. Thatching young pear trees in that locality seems an uncalled-for labor and expense.—*Scribner's Magazine.*

Salting Cows.—My practice, says an old dairyman, is to give my cows all the salt hay they will eat, three times a week, during the summer season. The amount consumed by them is greater while in flush feed than short. The amount of milk returned by the cows is from a quarter to a third more than when salted but once a week. It may be that some soils are deficient in salt, and that stock require it in large quantities to equalize the system. If so, they will eat less; they are the best judges. The effect of salt is to increase the desire for both food and drink. Hence the materials for milk. More salt is consumed by my stock when fed on a clean grass patch, where they can mix salt and grass, than if in a shed. A strong solution of salt in water, irregularly applied on hay for either cattle or horses, produces scouring.

Store pigs should have clean, dry pens, and be fed upon mixed food. The causes of most of the diseases affecting swine, are corn, corn, corn, continually; and filth uninterruptedly. Corn is an imperfect food, containing too much carbo-hydrates, and not enough nitrogen and phosphates. Along with wheat or rye bran, roots, milk and occasionally some chaffed and moistened clover hay, corn is well enough; but a mixed diet, a dry, clean bed, an abundance of clean water and good ventilation, are necessary if one would have healthy pigs.

When flies are about, the *Husbandman* recommends to take the crystals of carbolic acid and make a weak solution which apply to horses, just enough to wet the hair, and no flies will trouble them. The wash will not discolor the hair. If there are any skin diseases it will be beneficial. There is nothing better than this wash to destroy vermin that annoy horses and cattle.

Salt should be given regularly to every animal except poultry. Pigs should have only a very small quantity; one ounce weekly, to each full grown one, is sufficient. Horses, oxen and cows may have one ounce daily, and sheep may be supplied with all they will consume.

SCIENTIFIC.

The Metals in Olden Times.—It has sometimes been questioned whether the Egyptians had any knowledge of steel. It seems unreasonable to deny them this knowledge. Iron was known at the earliest time of which we have any record. It is often mentioned in the Bible and in Homer; it is shown in the early paintings on the walls of the tombs at Thebes, where butchers are represented as sharpening their knives on pieces of metal colored blue, which were most probably pieces of steel. Iron has been found in quantity in the ruined palaces of Assyria; and in the inscriptions of that country fetters are spoken of as having been made of iron, which is also so mentioned in connection with other metals as to lead to the supposition that it was regarded as a base and common metal. Moreover, in the Great Pyramid, a piece of iron was found in a place where it must have lain for 5,000 years. The tendency of iron to oxidize must render its preservation for any long period rare and exceptional. The quality of iron which is now made by the races of Africa and India is that which is known as wrought iron; in ancient times, Dr. Percy says, the iron which was made was always wrought iron. It is very nearly pure iron, and a very small addition of carbon would convert it into steel. Dr. Percy says the extraction of good malleable iron directly from the ore "requires a degree of skill very far inferior to that which is implied in the manufacture of bronze." And there is no great secret in making steel; the natives of India now make excellent steel in the most primitive way, which they have practiced from time immemorial. The supply of iron in India as early as the fourth and fifth centuries seems have been unlimited. The iron pillar of Delhi is a remarkable work for such an early period. It is a single piece of wrought iron fifty feet in length, and it weighs not less than seventeen tons. How the Indians forged this large mass of iron and other heavy pieces which their distrust of the arch led them to use in the construction of roofs, we do not know. In the temples of Orissa iron was used in large masses as beams or girders in roof work in the thirteenth century. The art of extracting metals from the ore was practiced at a very early date in Great Britain. The existence long ago of tin mines in Cornwall, which are so often spoken of by classical writers, is well known by all. That iron was also extracted from the ore is most probable, and it was largely used for many purposes by them before the Roman conquest. The Romans worked out iron extensively in the Weald of Kent, as we assume from the large heaps of slag containing Roman coin which still remain there. The Romans always availed themselves of the mineral wealth of the countries which they conquered, and their mining operations were often carried out on the largest scale, as in Spain for instance, where as many as forty thousand miners were regularly employed in the mines at New Carthage. Coal which was used for ordinary purposes in England as early as the ninth century does not appear to have been largely used in iron smelting until the eighteenth century, though a patent was granted for smelting iron with coal in the years 1611. The use of charcoal for that purpose was not given up until the beginning of this century, since which period an enormous increase in the mining and metallurgical industries has taken place; the quantity of coal raised in the United Kingdom in 1873 having amounted to one hundred and twenty-seven million tons, and the pig iron to upwards of six and a half million tons.

Aerolites.—Aerolites have lately attracted unwonted attention owing to one of them having come down with a thump on Windsor Castle. This incident would, however, have caused no surprise in countries where the fall of meteoric stones from the skies is almost as common as the shower of stones and other missiles hurled by the playful youths of London from railway bridges at passing trains. In the Mysore Provences the fall of aerolites is, says a Bangalore paper common enough and Dr. Haynes in his *Statistical Fragment on Mysore*, drawn up in the year 1809, state that "Masses of immense size are said to have fallen from the clouds at different periods. In the latter part of Tippo Sultan's reign it is on record, and well authenticated, that a piece fell near Seringapatam of the size of an elephant, which, by the Sultan's officers was reported to produce the effect of fire on the skin of those who touched it; a comparison naturally made by persons ignorant of extreme frigidity. It is stated that two days elapsed before it was entirely dissolved, during which time it exhaled such a stench as to prevent people from approaching it. This account is in the public record of Tipoo's reign, from a gentleman of the greatest respectability of character, and high in the civil service of the honorable Company.

The Make-up of Long Island.—It is not questioned, we believe, that Long Island is a terminal glacial moraine, and that the material of which it is composed is the *debris* of regions over which the ice moved in its progress towards the sea. Its underlying portions are beds of laminated sands and clays which have been referred to periods antecedent to the advent of the ice, and which constitute in one sense a part of the island. Its great mass, however, overlies these beds, and presents two general forms of structure. One is known as the "unmodified bowlder drift," in which there are no stratified beds; the other is the "modified drift," or that in which the material has been distributed in layers chiefly by the action of waves. Much of the hill region of the island present the peculiar pell-mell structure of the one—the stratified gravels and sands of Southern Long Island are typical of the other. These differences in structure, and other facts to be mentioned, imply great changes in the relative level of land and sea upon the coast.—*Popular Science Monthly*

Dispersion of Plants.—From statistics regarding the distribution of the flora of Europe, the curious conclusion is reached that those plants having seeds or fruit with special appendages to aid in their dispersion, are generally less widely scattered than those destitute of such helps. The single exception is in the case of seeds provided with tufts of hair—technically termed coma—which have a very broad range. The seeds of the willows are furnished with a coma, and so are the milk weeds. Dr. Gray states that these last plants which are "the most composed of the higher orders," have not a wide range in North America. It is also found, from a study of the European flora, that plants whose flowers bear but a single seed are more broadly distributed than those bearing two or more seeds in each cell. Plants with albuminous seeds somewhat surpass in range the ex-albuminous seeds, have the longest known vitality, and best bear exposure to sea water. Large genera have a slightly greater dispersion than small ones, and variable species than those not especially so.

Antiquity of Iron.—According to the Iron Age, a wedge or plate of iron has been found imbedded in the great Pyramid, the indications being that it must have been wrought in the age of Cheops, placed by some authorities so far back as 5,400 years ago. This makes the use of iron about 2,500 years more ancient than it is supposed to be, and affords opportunity for explaining the cutting of the sharp and well-defined hieroglyphics on porphyri, granite and other hard stones employed in the construction of Egyptian pyramids, temples, and tombs. How these could have been cut before the age of iron has been a puzzling question to many. Further investigation may show iron to have been in use 6,000 years ago.

The head of a bolt is usually about twice the diameter of the spindle, and of a thickness which is generally greater than five-eighths of that diameter.—*Rankin.*

DOMESTIC.

Value of Condiments.—By condiments we mean substances like sugar, spices, vinegar, and others that are employed to impart flavor and piquancy to the staple foods. They are usually regarded as non-essential, and some writers on dietics have gone so far as to condemn their use, unless in rare instances and in the most infinitesimal proportions. Like all good things they are liable to be abused, but when properly used they are valuable elements in our daily food.

Condiments have an important influence upon the process of digestion and nutrition. The mere sight or thought of a savory dish "makes the mouth water,"—that is, it makes the salivary glands pour out their secretion copiously, which is an important stage in digestion, especially for certain articles of food. Experiments made upon dogs show that a similar effect is produced upon the gastric secretion, and thus the work of digestion is further promoted. The loss of the sense of taste would be not merely a loss of enjoyment, but a positive injury to the digestive system. The very smell of food may do us good, just as certain odors will restore a person who has fainted.

It does not follow because condiments are useful, that we may not have too much of them; on the contrary, their best effect depends upon their being used in moderation. The more decided the flavor of any article of food, the sooner does it pall upon the appetite. It is one of the peculiar merits of French cookery that flavors are so delicately blended; no one is specially prominent, and yet by their different combinations a wonderful variety of appetizing effects is produced. We Yankees, like the English, are apt to use condiments in a coarse reckless way, and thus miss their finer and more exquisite effects, besides losing much of the benefit that might be derived from them. By a nicer care in their employment, the plainest and simplest diet might be made at once more delicious and more digestible.—*Journal of Chemistry.*

Mince Pie.—Very rich mince meat. Procure a fresh beef's tongue, rub it over with salt, brown sugar and powdered cloves; let lay three days, then wash and boil slowly two hours; skin it and mince very fine, or take four pounds of the round of beef—reject all fat—boil slowly in a small quantity of water until tender, and mince when cold; shred and mince one pound beef suet, stone four pounds of the richest raisins, two pounds currants, one pound citron cut very fine, the grated yellow rind of two lemons and two oranges and their juice, two tablespoonfuls of powdered cinnamon, four grated nutmegs, one tablespoonful cloves, one tablespoonful mace, and one tablespoonful ginger, ten pounds granulated sugar, one pound of sweet almonds and one ounce of bitter ones; prepare as for cake; and four pounds of very finely minced tart apples, if you wish (apple is not put in the very richest pies); mix all together and moisten with a quart of champagne cider and a pint of brandy, or a quart of Madeira wine instead of cider, and bake in sweet puff paste.

Barley Water Preferable to Milk.—A paper entitled "Observations on the Digestibility of Milk," read a short time since in London by Dr. Carter, has attracted considerable attention. In this paper, Dr. Carter, as reported, discussed various methods which had been generally used with a view of promoting the digestibility of milk, pointing out that their efficiency was essentially due to the dilution of the caseine, thus causing the precipitation, on its introduction into the stomach, in a granular form, of what would otherwise be firm, bulky, and compact. He further showed, by experiment, that simple dilution with water is insufficient for this purpose, and that the object is far better attained by admixture of alkaline or starchy waters with the milk. Dr. Carter summed up by giving a decided practical preference to barley water, and this conclusion he illustrated and supported by various experiments and by reference to cases within his professional knowledge.

If beef is poor and tough, season a thick steak with salt and pepper and fry slowly in a little lard. Turn it often that both sides may be cooked alike and equally browned. When well browned add a small quantity of water, half a sliced onion, some minced parsley and thyme, thicken with a spoonful of flour, cover close, and leave it for an hour on the back of the stove, where it may simmer slowly; after this has been done add a pound of can tomatoes, then let it slowly cook about two hours, or until the meat is ready to fall to pieces. A good-sized porcelain-lined pot should be used in preparing this dish.

A New Adhesive. — An adhesive which, so far as color and durability is concerned, is affirmed to surpass that made from gum arabic, is made according to the following recipe, viz:—Milk is curdled by the addition of acetic acid (vinegar) and the precipitated casein after being thoroughly washed with fresh water, is dissolved in a cold, saturated solution of borax. The result is a clear solution of syrupy consistence, possessing upon drying a fine lustre, and high adhesive qualities. This adsive is recommended for a variety of uses.

Smoky Stoves.—There is a very simple way of avoiding the disagreeable smoke and gas which always pours into a room when a fire is lit in a stove, heater, or fire place on a damp day. Put in the wood and coal as usual; but, before lighting them, ignite a handful of paper or shavings placed on the top of the coal. This produces a current of hot air in the chimney, which draws up the smoke and gas at once. Not one person in fifty even thinks of this easy expedient.

To Cure Hams.—For fifty weight, allow three quarters of coarse salt, half a pound of saltpetre, and two quarts of good molasses. Add soft water enough to cover the hams; common sized ones should pickle five weeks and larger ones six. They should all be taken out once a week, and those on top put at the bottom. Smoke with cobs, or sawdust and walnut wood mixed.

Mock Goose.—Take two tender steaks, lay one in the bottom of the baking pan and cover it with lard or butter; sprinkle over this bread crumbs, well seasoned with salt, pepper, sage, and a little onion. Lay on the other steak and prepare it as the first, then pour on a tumbler of water, and bake slowly. Keep it covered until nearly done.

Purity of Vinegar.—To test the purity of vinegar, pour out half a wine glassful and add ten or twelve drops of the solution of muriate of barytes. If the vinegar is pure it will show no change. If it contains acid it will gradually turn to a milky hue, according to the quantity of acid it contains.

Cure of Bunions.—A good bunion remedy is to use pulverized saltpetre and sweet oil; obtain at the druggists five or six cents' worth of saltpetre, put into a bottle with sufficient olive oil to nearly dissolve it; shake up well, and rub the inflamed parts night and morning, and more if painful. This is a well tried remedy.

Saratoga Pudding.—Beat together three tablespoonfuls of sugar, two of flour, three eggs and a little salt. Stir into them a quart of hot milk. Beat together again and bake a quarter of an hour.

To Boil Cider.—Take cider that has been made but a day or two, and boil it half away. Skim often. Bottle and cork it well. A mould will form over the top, but it will not injure the cider.

HUMOROUS.

A Good Story is told of an Irishman who gave evidence before a Fishery Commission on the west coast of Ireland. Amongst other questions, as he seemed rather discursive, and inclined to aver anything, one of the commissioners asked him "if they had many whales there." "Is it whales?" questioned Pat. "Sure ye may see 'm by the dozen, spouting about like wather-engines all over the place." Another commissioner gravely asked if there were many dogfish. "Dogs, begorra! Faix, ye'd say so 'ad ye passed the night here; sure we can't slape for the barkin' of them." Lastly, one of the other commissioners asked "if flying fish abounded." The answer was, "Arrah, an' if we didn't put the shutters up every night, there wouldn't be a whole pane of glass left in the house, for the cratures bateing against thim." This finished the sitting, and the next day Pat came to ask for his expenses, exclaiming, in extension of them, "Sure now, honey, didn't I swear to everything ye axed me?"

Companion Volumes.—A lady of a religious turn of mind residing in the country was anxious to present her nephew who was going to sea with some slight testimony of her affection, and decided, if she could obtain it, to give him a pious work, known as "The Companion to the Altar." But the nearest town was nine miles off, so she walked over to the neighboring village and inquired for the work at the general shop, which combined groceries, haberdashery, and the postoffice, with a little bookselling. The proprietor replied that he thought he possessed the book, but after running his fingers along his shelf he turned around and said: "I am sorry to say that I have not got it, madame; but here is a work of the same class, the 'Guide to Courtship and Marriage,' if that will suit you." This is by no means bad for a village.—*London Examiner.*

A Mother in-Law.—She had succeeded in marrying her son, and naturally undertook the management of his household.

Presently the son died, but she continued to advise direct, and worry generally her daughter-in-law.

Then the daughter-in-law married again, but still the old lady insisted on bossing things.

A friend essayed to convince her that she could have no possible right to interfere,—that the new husband was nothing to her.

"Nothing?" she cried, "he nothing to me? Why, am I not his step-mother-in-law on his wife's side?"

"Have you," said he, as they finished their last cigar, while the family tabby—"lit by the chaste beams of the watery moon"—was "at home" upon the neighboring shed, "have you much of that sort of music?" "Yes," answered Benedict, as his gaze followed reflectively the final wreath which "so gracefully curled" toward the ceiling, "yes, a good deal; Thomas is a prolific composer; I think that *must* be o-puss 999."

Sheridan being on a parliamentary committee, one day entered the room as all the members were seated and ready to commence business. Perceiving no empty seat he bowed, and looking around the table with a droll expression of countenance, said, "Will any gentleman move that I may take the chair?"

It was Pope who used to swear "God mend me," and, swearing his favorite oath one day in the presence of a little boy, the boy looked at the diminished and misshapen form of the great poet, and said: "God mend you, indeed! I think it would be a good deal easier to make a new one."

"Mamma," lisped the beautiful Seraphina Secretia Ellorolla Scram, as she appeared at the breakfast table with her hair in curl papers, "do you think Russian soldiers will trample on the Turkish corn because they consider it an ex-crescent's.?"

A gentleman was examining an umbrella and commenting upon its fine quality. "Yes," said a person present, "he fancies everything he sees." "And," added a third party, "is inclined to seize everything he fancies."

Drink, Pretty Creature, Drink.—Alice—"Do you know, uncle, that horrid Mr. Binks declares you have taken to hard drinking?"

Uncle George—"Not true, my dear, No! Never drank easier in my life!"

"Sing Sing," shouted the brakeman, as a Hudson River train slowed up to that station. "Five years for refreshments," yelled a passenger with short hair and bracelets, as he rose to leave the car in charge of a deputy sheriff.

A few years since, at the celebration of an anniversay, a poor peddler who was present, being called upon for a toast, offered the following:—"Here is a health to poverty—it sticks to a man when all his friends forsake him."

A child had been taken to a funeral. On coming home it says, "Mother, who were those men holding those cords?" Pall-bearers, my love." "When I grow up I'll be a pall-bearer." "Why?" "So's I'll be buried last."

The unlucky captain of a New Bedford mackerel smack says he doesn't want any more geometry in his. The fishing season coming round he went out for a try-angle and brought back a wreck-tangle.

An exchange says that "woman is like tar; only melt her, and she will take any form you please." She is not unfrequently a Tartar also; only get her and you will take any form she pleases.

A boy, who heard that a despot was a person who ruled with a rod of iron, wanted to know if his teacher was one, because she used the poker to rule a line by.

"I've taken to the study of my heart," said an old miser. "Well," said his nephew, "I never supposed *you'd* spend money for a *microscope.*"

Can you tell me when it is that a blacksmith raises a row in the alphabet? It is when he makes a poker and shove *l.*

A Judge said, when addressing a prisoner: "You are to be hanged, and I hope it will prove a warning to you."

If you are in love and don't know how to make it known, go to your tailor He will press your suit for you.

An Irish lover remarks that it is a great comfort to be alone, "especially when yer swateheart is wid ye."

Truth kan take kare of itself, but a lie has got to be watched az kareful as a sore thum, says *Josh Billings.*

The flower born to rise unseen is the flour which rises in the baking pan during the night.

A lady writes about the "watery, sober moon," when really the moon was fall.

When a hundred year old man is buried that is a centuary plant, isn't it?

The bookkeeper who fell from column of figures is still in a critical state.

Why is a chicken like a farmer? Because both delight in a full crop.

In what place are two heads better than one? In a barrel.

A motto for young lovers: So-fa and no father.

A trance-action—Sleep-walking.

Necessity of Coolness in Danger.

Panic is, of course, one of the things against which it is most easy to preach but which it is most difficult to preach down. Still if it could be got into the heads of all the people in their cooler hours that, in case of an alarm of fire in a theatre, the principal danger comes from themselves and is in their own control, it is probable that, even under the influence of sudden excitement and fear, many who now would show a bad example might then show a good one. Not very long ago a sudden alarm took place in one of the best of the Paris theatres. It was not alarm of fire, it was only a clattering and crashing among the branches, chains and lamps of the huge glass chandelier which hung from the roof. Those who were under the chandelier thought it was coming down upon them, and made wildly for the doors. The theatre was well enough constructed, and had many outlets, but in an instant some of the passages were completely jammed and choked by excited people. Luckily a single instant was enough to allow one of the performers on the stage to see and explain the whole cause of alarm, and to convince the fugitives that there was no danger. The whole stampede was set going by the sudden pattering of hailstones through an open window among the metal and glass of the chandelier. In that instant the alarm was but momentary, and in many parts of the house was unobserved. Yet it was evident to all cool observers that had it lasted only a few minutes longer and been allowed to spread, the passages and doors would have been hopelessly choked by a panic stricken crowd, and some loss of life would most infallibly have occurred.

Something Easily Settled.

At Youngstown, Ohio, a young man and a young lady have made a bet. The *Vindicator* says: "The girl being a Tilden man and her lover a Hayes man, she made the following proposition, which was perfectly legitimate, this being leap year: "If Tilden was elected, the young man was to marry the girl. If Hayes was elected the girl was to marry the young man. The couple are in a terrible state of suspense. Every night they each get a daily paper sustaining their political belief, and compare notes. They cannot decide who is to marry which. It appears to be a complicated case on the face of the returns." Of course he will marry her.

A spark iz a little thing, but it kan light the poor man's pipe and save the world from ruin.

There is no saying shocks me so much as that which I hear very often, "that a man does not know how to pass his time." It would have been but ill-spoken by Methusleh in the nine hundred and sixty-ninth year of his life.

Warwic, Cecil Co., Md., Oct, 15.
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Geo. M. Beasten.

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