

TENDERNESS.

Not unto every heart is God's good gift of simple tenderness... With love in many fashions when we lift... Live on our lips life's water bitter sweet...

his boy and at least twenty others in the yard, and the goat standing on his hind legs keeping the boy at bay. As soon as Master George saw his father he shouted: "Pop, here he is. Ain't he a bully boy? He's bucked the stuff's out of the stoop, and he's bucked the wash-house into kindling wood. He ain't killed anything yet, but golly, how he did scare me. You'd ought to hear him scream. Wasn't it funny boys?" and George and his companion roared at the memory of the enjoyment.

Long for tenderness like that which hung about us, lying on our mother's breast: A soft feeling, that no pen or tongue can praise aright, since silence sings its best. As from the distance of a long time, I begin to lean on when the falling feet. A love to tattle and the eyes to tear. In youth a brief holiday hotted love we seek. The reddest rose we grasp—but when it dies God grant later blossoms, violet meek. May spring for us beneath life's Autumn skin. God grant that some loving one be near to bless Our weary way with simple tenderness!

"Why, in thunder?" asked Parisien. "Didn't you put him in the cellar? I want him to tickle the rats and beat the life out of millions of them." "Pop," said George, "you're stronger than we are. You do it. We're afraid." Parisien started for the goat, and at the same time the goat started for Parisien, and before he knew what was coming he was in the air, with a beautiful smash. The boys laughed with great glee, and his promising son roared out, as Parisien landed on his shoulders on the plot where the grass is green when it grows: "Bully for you, Pop. Only six months in the circus, and doing a double somersault. But you ought to come down on your feet. That's the regular style."

Through the moon may be regarded as to all intents and purposes dead, it must not be supposed that no changes whatever take place upon her surface. On the contrary, some of the peculiarities of the moon's condition must tend to cause even more rapid changes of certain orders than take place in the case of our own earth. Thus the great length of the lunar day, and the moon's waterless condition and rare atmosphere, must help to cause a comparatively rapid crumbling of the moon's surface. During the long and intensely hot lunar day the rock substance of the moon's surface must expand considerably, for it is raised to a degree of heat exceeding that of boiling water. During the long lunar night the surface is exposed to a degree of refrigeration far exceeding that of the bitterest winter in the Arctic regions, and must contract correspondingly. This alternate expansion and contraction must gradually crumble away the surface, and the steepest portions of the moon's surface, and will doubtless, in the long run—that is some few hundreds of millions of years hence—destroy all the most marked irregularities of the moon's surface.

"I'll come down on you with the moon's infernal scowling you've ever had, as soon as I chuck this infernal goat in the cellar. Don't you forget that," said Parisien still lying on his back. He did not attempt to get up for awhile—not, indeed, until the goat, imagining that he had killed his master, commencing eating up the grape vine. Then Parisien stole noiselessly upon him, grasped him by the hind legs, tossed him and commenced to drag him toward the basement. "George," he shouted, "open the cellar door, and be quick about it; if you ain't, I'll skin you alive when I murder this goat." George hurried to obey the command, and Mr. Parisien succeeded in dragging the goat to the door and hurling him through it, and then he bolted the door and shouted, "I don't care a darn whether the rats eat you or you buck them to death." Then he walked up stairs, knocked at his wife's bedroom door, informed her that the goat was safely locked in the cellar, and told her to go to bed.

It seems impossible to doubt that a great change has taken place here, and the question arises whether the change has been produced by volcanic activity or otherwise. Sir John Herschel pronounced somewhat confidently in favor of the former hypothesis. "The most plausible conjecture," said he, "as to the cause of this disappearance seems to be the filling up of the crater from beneath, by an effusion of viscous lava, which, overflowing the rim on all sides may have so flowed down the outer slope as to efface its ruggedness, and convert it into a gradual declivity casting no stray shadows." "But how tremendous the volcanic energy," we note in the passage referred to, "required to fill with lava a crater nearly seven miles in diameter, and more than a half deep! The volcanic hypothesis seems on this occasion utterly incredible, for if such energy had been in the moon's interior we should find on its whole surface continually changing. Far more probable seems the idea that the wall of this crater has simply fallen in scattering its fragments over what had once been the floor of the crater. The forces at work in the moon are quite competent to throw down steep crater walls like those which seem formerly to have existed on this deep cavity."—The Cornhill Magazine.

It may fairly be questioned whether a practical knowledge of how to choose nourishing food and prepare it in a wholesome and economical manner would not be quite as important to the masses, especially in this country, as the working classes as how to knit a stocking or make a hat. The view does not, however, seem as yet to have presented itself to the heads of the education department, if we are to judge of their opinions by the tone of their subsidiaries. The Government inspectors, as a rule, put every obstacle they can in the way of those schools which have taken up cooking. We should have thought it would be much easier for them to hunt for a few good cook-books, and probably several non-metallic substances are present in the sun. In a paper read before the American Philosophical Society last month, he gave the details of experiments which appear to prove that oxygen forms one of the sun's constituents. Its presence is indicated in the spectrum, not by black but by bright lines. To make this more apparent, Dr. Draper has photographed with the spectrum of the sun a "comparison spectrum" of common air—the air being ignited by the electric sparks of a Leyden jar. The "comparison spectrum" gives the bright lines of oxygen and nitrogen, and also from the terminals of the battery used; those of the metals serve to check the accuracy with which the two spectra—the sun and of air—are matched.

Mr. Parisien read in a scientific paper that there was nothing so excellent for keeping rats and mice out of a cellar as to put a goat in it. The scientific paper did not inform Mr. Parisien why it was that rats and mice objected to inhabiting the same cellar with a goat. His cellar was infested with rats, which made raids on his potatoes, flour and pork, and other articles of an edible nature, so he determined to buy a goat. "My dear, I am going to buy a goat." "For the land's sake, Eugene," she answered, with astonishment on her face and a hunk of buckwheat cake in her mouth, "are you crazy?" "No I ain't crazy!" he loftily replied, "but I am going to buy a goat!" "Bully for you Pop!" enthusiastically shouted the son George, a youth of twelve summers, and the same number of colds in his head. "We'll have bully fun with a goat! Won't it be high pie to ride him round the block and seeing him go for the women and buck him in the street. Hooray for the goat!" Mr. Parisien left the house and made for the store of an acquaintance, who deals in everything from an elephant to a boat's anchor. He stated his need, and the acquaintance said he'd send one round the house in a couple of hours. Then Parisien paddled down town, toted up figures all day and at five o'clock started for home. When he reached it he found his wife locked in a bedroom,

AGRICULTURAL.

WHEAT CROPS.—We find that many of our farmers are still in doubt as to the yield of the wheat crop depends upon the length of the heads. We think a careful examination will show this to be a mistake. There is another quite as important a difference, which will not out any change in the length of the heads, has much to do with the yield of the crop, and which is very often overlooked in summing up the result. Examination will show that a head of wheat has its grains arranged in two divisions, one on each side, and that these divisions are again divided at right angles to the length of the head, into "cheats," or bunches of grain. In ordinary crops these bunches or cheats contain two grains for at least three-fourths of the distance from the base to the point of the head; the upper quarter of the head usually has but one grain on each side, and in light crops these are often imperfect or abortive. When the crop is very short in yield these abortive grains will be found near the base of the ear, as well as at its point, if there is a difference, which will not be found near the base of the ear, it will usually be found near the middle. When the crop is unusually large we will usually find a third grain growing on the base of the ear, which sometimes extend from the base to the middle of the ear, but are usually confined to two or three chests near the middle of the ear. The increased yield will often depend upon the distance to which this third grain is found up or down the head, but it is never found beyond the point of the ear, and I have never noticed more than two grains in the third chest from the end. Last season, through early sowing and heavy manuring, our wheat was unusually large by the fly. In some spots it was very thin; but it was in these light spots that we found our best-filled heads of wheat; in some instances we found four or five grains on the base of the ear, or eight in a circle around the head; in such cases we usually found three clear to the base and two to within three-fourths of the length of the ear. Brighton, England, has found that by careful selection of the best grain from the middle of heads showing this central grain, and by sowing and manuring, it has increased its yield of wheat from 10 to 15 bushels per acre. It is also reported that a farmer in the West Indies has increased his yield of wheat from 10 to 15 bushels per acre by the same means.

FRUIT "BUTTER."—The sale of fruit "butter" in all large cities is very large. It is put up in wooden pails, and is sold in two grades. The "American Butter," published in New York, says: "Fruit butter may be made in the country very easily and cheaply. The same purpose that sugar subserves in the manufacturing here may be accomplished there by the use of elder. Then pare and core four bushels of apples. Then boil down three barrels of elder to one and a half, and set it convenient to the copper kettle, in which place the four bushels of apples. Pour on to the apples, from the elder enough to answer the purpose, and fire up. As the elder boils away, add more and more, until it is all used up, and the contents of the kettle are brought down to a proper consistency, of which one must be sure. A little sugar will make one perfect in this process. This is for apples.—It will apply equally well to any other kind of fruit from which it is possible to obtain the juice as one would from apples." "Yes, Jennie," said she. "And I've thought I'd always like to know you, Jennie." "Yes and I've thought a lot—Jennie." "Yes—Jennie—yes." "We're dead we can lay our bones together!" "The fool had gone and bought a lot in a graveyard, but Jennie was not discouraged. She knew her man well after fourteen years she ought to—and so she said gently: "Yes, Jennie." "Don't you think 'twould be better to lay our bones together while we're yet alive?"

GREEN TOMATO PICKLES.—One peck green tomatoes, washed, on one quart green peppers, one small box of mustard, two quarts of vinegar, one and one-half pints of salt, one-half pound water, and one-half pound sugar. Put the whole cloves, one tablespoonful black pepper, cut onions and tomatoes in thin slices, and chop peppers thin; make layers of them in a large stone pot, and sprinkle with salt and vinegar. Let them stand twenty-four hours, and then drain off the brine. Put tomatoes, onions and peppers in a preserving kettle, and add the water, vinegar, mustard, salt, sugar, and pepper, and so on to fill the kettle. The box of mustard should be thoroughly mixed in a mortar, and then put the apples, sugar after everything else is in. Steep slowly over a moderate fire in three-quarters of an hour.

APPLES PRESERVED LIKE GINGER.—Peel and cut in quarters six pounds of apples, six pounds sugar, one-half pound water, and one-half pound ginger, a layer of apples, then sugar and ginger, until all are put in; next day bruise an ounce of ginger and infuse it in a pint of boiling water, closely covered; next day put the apples, sugar and ginger with the water from the bruised ginger in a preserve kettle and boil it for one hour, or until the apples are soft. Add the sugar and ginger, and lemon peel, cut very thin, just before done.

REMEDY FOR WHOOPING COUGH.—Take half an ounce each of spirits of hartshorn and oil of amber; mix them together; every night and morning pour a few drops of this mixture into the mouth, so that it may reach the pit of the stomach, soles of the feet, armpits and backbone. As long as the complaint is being used do not allow the patient to eat anything but bread and water. The best salt when forged into shape and hardened in mercury, will cut almost anything. We have seen articles of iron, which have been hardened and tempered to a deep straw color, turned with comparative ease with cutting tools from good steel. But the most curious thing is, in the current of cold air, passing through a narrow slit. This gives a much more uniform and equal temper than the usual method of heating. This being a good conductor of heat—in fact the very best liquid conductor and the only one that is not solid—this is the best material for use in the manufacture of cutting tools. The best steel, when forged into shape and hardened in mercury, will cut almost anything. We have seen articles of iron, which have been hardened and tempered to a deep straw color, turned with comparative ease with cutting tools from good steel. But the most curious thing is, in the current of cold air, passing through a narrow slit. This gives a much more uniform and equal temper than the usual method of heating. This being a good conductor of heat—in fact the very best liquid conductor and the only one that is not solid—this is the best material for use in the manufacture of cutting tools.

Among the Armenian Women. A war correspondent, describing his journey from Trebizond to Erzeroum, says: "Thousands of small yellow ferrets dart to and fro across the road, and the monkeys are everywhere. The Hindos believe that after death the soul passes into the body of animals, to live through another term of probation on earth. Among them the cow and the monkey are sacred. The Hindos are very superstitious concerning the beard. They believe that the divine image of man rests there, and that the angels have charge of every hair. Two centuries ago our ancestors used to wear postbeard covers over their beards in the night, lest they should turn upon them and rumple them in their sleep. The Japanese and the inhabitants of Tibet are not satisfied with devout prayers, sacrifices, offerings to the gods, etc., but they also pray by machinery. They have a square post, eight feet long, and near the center is fixed vertically a wheel, which can be reached by the hand, and which moves in an axle passed through the post. On each of the three spokes of the wheel two small rings are strung. Every person who turns this wheel as he passes by is supposed to obtain credit in heaven for as many prayers as the number of revolutions which are marked on the post. The object of the rings is, that as they jingle they are believed to secure the attention of the deity; and the greater the noise, the more certain it will be listened to. Some of the inscriptions on the post are worth knowing. One is: 'The men and fools are in the same boat. Whether propped or afflicted, both are rowing over the deep lake.' Still another: 'As the floating grass is blown by the gentle breeze, or the glancing ripples of autumn disappear when the sun goes down, or the so life returns home to her old home, so is life. It is smoke—a morning's breath.' There are certain fashions prevalent among different nations which seem to us very absurd. For instance, the ladies in Japan gild their teeth; in the Indies they paint them red; in Guzerat, black. In Greenland the women paint their faces blue and yellow. The Peruvians and other Indian tribes flatten their heads, while other nations maltreat their noses. The Chinese shave off their hair, and allow their finger-nails to grow to a great extent. They wear white for mourning; they drink their wine warm and their tea cold, and a pupil reciting turns his back to the teacher. It is stated that a certain emperor thought the ladies too fond of calling on each other and gossiping, and in order to keep them more at home obliged them to adopt this custom.—Young People's Magazine.

Hardening Steel.—As the hardness depends on the quickness with which it is cooled there are better materials than water, which besides gives a better temper, the steam bubbles developed interrupting contact; another thing, water is a bad conductor of heat, and if cooling is desired it is better to immerse in water it would be unfit for hardening. Motion with plenty of ice in it gives a harder temper; small tools may be stuck into a piece of ice. To harden them in a piece of sealing wax. Oil is also used by some as being better than water, as it does not evaporate so easily. The Damascus steel, which is used for swords, is made by the current of cold air, passing through a narrow slit. This gives a much more uniform and equal temper than the usual method of heating. This being a good conductor of heat—in fact the very best liquid conductor and the only one that is not solid—this is the best material for use in the manufacture of cutting tools. The best steel, when forged into shape and hardened in mercury, will cut almost anything. We have seen articles of iron, which have been hardened and tempered to a deep straw color, turned with comparative ease with cutting tools from good steel. But the most curious thing is, in the current of cold air, passing through a narrow slit. This gives a much more uniform and equal temper than the usual method of heating. This being a good conductor of heat—in fact the very best liquid conductor and the only one that is not solid—this is the best material for use in the manufacture of cutting tools.

Medical Specimens.—For rapidly preparing bones and ligaments for medical purposes, the following is recommended that, after the soft parts have been taken away, except the ligaments, the preparation should be washed in water, and then placed in a jar of turpentine, and plunged into essence of turpentine. After two or three days' maceration in this fluid, the skeleton is placed in the alcohol, and after a few days it is dried in the air. In drying, the bones and ligaments become beautifully white, and the whiteness increases as time passes. The same process gives good results in the case of the lungs, or parenchymatous organ, on removing it from the turpentine bath Dr. Frederick plunges it into melted wax or paraffin oil, and after a few days it is ready for use. The bubbles of turpentine have ceased to pass off. When withdrawn and cooled, the paper resembles a wax model, and the water should be carefully removed; the color of the organ persists.

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How the Old Nobles Lived. The mode of living of the English nobility a few centuries ago may be somewhat understood by reference to an old book quite precious in the sight of the antiquarians, the household book of an earl of Northumberland. It appears the old earl had large family. It consisted only of six hundred and sixty-six persons, men and servants. Fifty was the average number of his daily guests. There was a very precise sumptuary code, and given out in parcels and by rule. From mid-summer to Michaelmas, fresh meat was allowed; for the rest of the year, salted provisions were alone admissible. Mustard was in great demand. One hundred and sixty gallons a year were used at the table—no doubt the character of the fresh and salt meat required a pot-stick to a great extent. They wore white for mourning; they drank their wine warm and their tea cold, and a pupil reciting turns his back to the teacher. It is stated that a certain emperor thought the ladies too fond of calling on each other and gossiping, and in order to keep them more at home obliged them to adopt this custom.—Young People's Magazine.

What the Sun is Made Of. A discovery of importance to science is announced by Dr. Henry Draper, of Hastings-on-the-Hudson. It is well known to students of the spectroscopy, that while the black lines that indicate the presence of metallic vapors are so abundant in the solar spectrum as to leave no room for doubting that most, if not all, the metals are ignited in the sun, there is yet an absence of the lines that characterize nearly all the non-metallic elements. Hydrogen is excepted from this sweeping rule, but there are many reasons for classing that gas with the metals. Various theories have been put forward to explain the absence of non-metallic lines from the solar spectrum, and the fact has even been used to throw a doubt over the nebular hypothesis, which necessarily assumes that the constituents of the sun cannot greatly differ from those of the earth. Dr. Draper's discovery, if it be confirmed, shows that at least one—and probably several—non-metallic substances are present in the sun. In a paper read before the American Philosophical Society last month, he gave the details of experiments which appear to prove that oxygen forms one of the sun's constituents. Its presence is indicated in the spectrum, not by black but by bright lines. To make this more apparent, Dr. Draper has photographed with the spectrum of the sun a "comparison spectrum" of common air—the air being ignited by the electric sparks of a Leyden jar. The "comparison spectrum" gives the bright lines of oxygen and nitrogen, and also from the terminals of the battery used; those of the metals serve to check the accuracy with which the two spectra—the sun and of air—are matched.

Learning by Art. Which is correct—learning by heart, or by art? The former is the usual expression; but it is by no means clear that it conveys the intended meaning. He who impresses words or sentences or aught else upon his brain by rote as it is called, uses some mechanical or inductive trick of mnemonics for the purpose. Schoolboys, actors, singers and their likes have artifices for committing matters to memory, and their learning is, by art, the heart has nothing to do with it. If learning by heart means anything at all, it certainly signifies a principle, the very opposite of that it is used to designate—the profound acquirement of knowledge, the understanding of facts and experiences without regard to the symbols by which they are presented to the mind.—Living Age.

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