

THE HOME CIRCLE.

Sympathy.

Oh, mothers whose darlings are sleeping, Thank God for their pillows to-night; And pray for the mothers now weeping...

For the sombre-winged angel is going With pitiless flight o'er the land, And we wake in the morn, never knowing...

There are hearts on those innermost altar There is nothing but ashes, to-night; There are voices whose tones sadly fainter...

Wonders of the Microscope.

The other day a Detroit father purchased a microscope for his son, a boy of ten, patted the lad on the shoulder, and said to him: "My son, take this microscope and go out and view the beauties of nature."

The boy left all other amusements for that, and he took such great interest, and improved so rapidly, that at the table, to which several visitors sat down with the family, he felt that he must make some remarks. Turning to one of the ladies he inquired: "Did you ever look at cheese through a microscope?"

"I don't think I ever did," she pleasantly replied. "Well, you just ought to see the things crawl!"

"John! John!" exclaimed the father, shaking his head at the boy across the table. John subsided for a minute or two, and when his mother passed the cheese around everybody said, "Thank you, no." Pretty soon the young student, desiring to mollify his father, asked: "Father, did you ever look at a toad through a microscope?"

"I will talk with you after supper," replied the parent, scowling at the boy.

John felt rather disappointed at his failure to arouse enthusiasm, and just as the strawberries were being passed around he remarked: "Well, you just ought to look at a strawberry once through a microscope! They look just like waris, they do, and you think you see bugs running!"

"Jawn!" said his mother. "Boy!" warned his father.

"Well, they look wot'n flies' heads!" protested the boy, who imagined that they doubted his veracity, "for flies—"

"Boy!" said the father, making a motion for John to leave the table.

John left, and as soon as it was convenient for him to do so the father escorted the lad to the wash room in the basement, bounced him around and said: "My son, give me that microscope, and you take the axe and go out and study the beauties of that woodpile!"

If that boy continues to feel the way he does at present he will soon become a bank robber instead of a naturalist.—Detroit Free Press.

THE PSALMS OF DAVID.—They have been read and sung, and studied, and prayed over, and wept over, for twenty-five centuries of time. The most ancient of them has been in existence for 3,000 years; the latest written was composed at least 2,500 years ago.

ADVICE TO GIRLS.—Somebody gives the following advice to girls. It is worth volumes of fiction and severe mentalism.—Men who are worth having want women for wives. A bundle of gawags, bound with a string of flaps and quavers, sprinkled with cologne and set in a carmine snapper—this is no help for a man he expects to raise a family of boys on bread and meat.

A LIVING POP-GUN.—There is a little fish, the chetodon, abounding in the Eastern seas, from Ceylon to Japan, which secures its prey by means of an instrument like the blow-pipe used by the mischievous school-boys for projecting peas and other means of torment.

RIGHTS OF WOMEN IN ENGLAND.—Mr. Russell Gurney, M. P., has promised to introduce in the British House of Commons a bill to secure to a married woman her own property, and to make her as liable for her own contracts as if she were a single woman.

IRON BOUND.—The boundary line in the far Northwest is being marked by cast-iron pillars, eight feet high, set in the ground four feet, at distances of a mile from each other.

The Age of Shams.

Professor Draper, of Columbia College New York, a few years ago published a work on the development of Society in Europe, in which he noted the gradual progress of the race, and treated of different periods under such heads as these: "The Age of Faith," "The Age of Superstition," "The Age of Scientific Enlightenment," etc. It is a pity that Professor Draper would not rise to describe the "age of shams" in America. He would find a field of unequalled extent, in which every variety of sham that ever existed blossoms and flourishes to a pitch of perfection never before seen.

DANCING GOING OUT.—Somewhere London seems to have got tired of dancing. When the Shaks was here, no remark he made was more relished than his question to the Prince of Wales while the dance was going on: "Why do you not employ servants to do this for you?"

AN ASPIRING TWO YEAR OLD.—The Troy Whig says: "A day or two since one of our townsmen was engaged in painting the tin roof of his dwelling-house. A sixteen-foot ladder stood up against the house, the top of which projected about a foot and a half above the eaves.

WOMEN'S BOOTS.—The Journal of Chemistry points out a grave error in measuring the feet of women for boots. It says: Kid gloves, though worn continually, never cause bunions, since the kid stretches to the hand; but in the manufacture of boots, especially ladies' boots, unyielding canvas is used to line them, so that the leather is prevented from stretching and showing the true shape and size of the foot.

MRS. STANTON ON HORACE GREELEY.—Mrs. Elizabeth Cady Stanton has lectured in Chicago on Greeley, Seward and Weed. She estimated Weed as the greatest of American politicians, Seward as the greatest diplomat, and Greeley as the greatest editor.

PERSISTENCE OF PERFUMER.—The Empress Josephine was very fond of perfumes, and, above all, of musk. Her dressing-room at Malmaison was filled with it, in spite of Napoleon's frequent remonstrances.

THE BASTIE GLASS.—A large building for the manufacture of malleable glass by the Bastie process has been commenced in France, at a cost of \$625,000. The building is 163 yards by 160 yards in depth.

CURIOUS ELECTRICAL PHENOMENA.—A piece of wood out from a tree is a good conductor; let it be heated and dried, it becomes an insulator; let it be baked to charcoal, it becomes a good conductor again; burn it to ashes, and it becomes an insulator once more.

UTILIZING THE HEAT OF BURNING LIME.—An enterprising and ingenious Irishman has patented a process by which the heat wasted in burning lime may be economized in the production of fruit and flowers under glass.

THE CORNERS OF THE SQUARE HEAD OF A TAP.—The corners of the square head of a tap should be rounded or chamfered off, so that the wrench will readily adjust itself to the square of the top.

USEFUL INFORMATION.

Zinc as a Preventive of Boiler Incrustation.

Among the various means used of late for preventing scale in boilers is zinc introduced into the water space in ingots from one to two inches in diameter and about fourteen inches in length. We have made frequent use of it, and in many instances it has worked well, though we think its effects are different in different waters. An ingot of zinc of the size indicated above will disappear in from three to four months. We have made trial in nearly all the New England States and in some of the Western States, and we believe that in most cases it has shown good results.

Cork—The New Substitute for Leather.

The Paris correspondent of the London Times writes to that journal: A stall has lately been added to the Maritime Exhibition by the Cork leather company, for the purpose of showing a fabric which is very like leather, but with qualities not possessed by any animal's hide. It is well known that cork is the most brittle of barks, and yet, at the same time, the lightest of materials. The cork leather, which now makes its appearance for the first time, is simply sheets of cork covered on both sides with thin linen, but so prepared that when bent double it neither breaks nor cracks.

Boiling Felloes in Oil.

A correspondent of the Hub, a monthly publication devoted to the business, writes as follows: Having had some experience in the business, I will briefly state my views. Take a hard, close-grained piece of second growth hickory; the pores are small and filled with air, and, however dry, with a little water also. Put this in hot oil. The heat converts the water into steam, and expands the air so that it is forced out of the timber, but I think very little oil goes in until the stick is taken out; then, as the remaining air cools and condenses in the wood, the air on the outside presses in what oil remains on the stick. The agitation or boiling that takes place while the wood is in the oil, is produced by the gas escaping, and not, as some imagine, by the oil penetrating the wood.

A MAN PULLS HIS OWN TOOTH AND NEARLY BLEKDS TO DEATH.

Recently, Mr. Harbold, of Amity township, Berks county, Penn., found one of his teeth troubling him very much, and not having either the time or the inclination to send for a dentist or physician, concluded to remove the molar himself. He amused himself with such instruments as were at hand, and finally managed to get the tooth out, but with it came a large piece of bone. This was bad enough, but he soon found that during the operation he had severed an artery, and was in a fair way of bleeding to death.

A SINGULAR ACCIDENT.

A singular misfortune has overtaken a young man at Halifax, N. S., which may result in the loss of his life. It seems that while he was picking his teeth with a straw piece of it lodged between two teeth in such a manner that he could not get it out. It annoyed him for several days but finally the pain ceased, and he found that the straw had worked under his tongue, where it soon began to cause pain, and at last resulted in the tongue becoming swollen and inflamed, while symptoms similar to those of diphtheria appeared in his throat. He at once sought medical advice, but his case is now considered very critical.

ACTION OF HEAT ON COAL.

A resume of the experiments of M. Reckert on this subject shows that coal pulverized and heated to between 180° and 300° increases in weight up to a twenty-hour exposure to this heat, when it begins to diminish. The specific gravity is also affected by this method of treatment, and of the specific gravities of 1.328, 1.319 and 1.299 having, after heating, specific gravities of 1.498, 1.495 and 1.471 respectively.

GOOD HEALTH.

Give the Children Candy.

Dr. L. P. Meredith, of Cincinnati, a skillful and successful dentist, has lately published an excellent little pamphlet on "Our Teeth and Their Preservation." Boys and girls who love candy—and which one does not—will rise up and call the doctor blessed on learning that he declares sugar to be "not only not injurious to the teeth, but that it is really beneficial to the health of the child." In support of this statement he cites a number of eminent witnesses. Henry, Duke of Beaufort, for forty years ate nearly a pound of sugar candy daily, and yet died at the age of eighty, with a full set of perfect teeth in his head.

The effect of anger upon the brain is to produce first a paralysis, and afterward, during reaction, a congestion of the vessels of that organ; for, if life continues, reactive congestion follows paralysis as certain as day follows night. Thus, in men who give way to violent rage, there comes on during the acute period what to them is merely a faintness, which, after a time of apparent recovery, is followed by a slight confusion, a giddiness, a weight in the head, a sense of oppression and a return to equilibrium. They are happy, who, continuing their course, suffer no more severely.

The Dangers of Anger.

An article by Dr. Richardson on "Induced Diseases from the Influence of the Passions," in the Popular Science Monthly for November, is interesting and instructive. He classes anger as the passion which stands first as being detrimental to life. He says: He is a man very rich indeed in physical power who can afford to be angry. The richest cannot afford it many times without incurring the penalty—a penalty that is always severe.

SWALLOWING A CENT.—Dr. Gibbs, one of the editors of Hall's Journal of Health, who is himself an educated physician and surgeon, while on a railroad train, the other day, was consulted by one of the employees on the cars in relation to his little boy, who had that morning swallowed a cent.

A DELICIOUS CRACKER.—Take equal parts "middlings" and graham flour. Wet with new or sweet milk, and knead rather stiff. Work it a good deal on the board; then roll out to one-quarter of an inch in thickness, and cut out in diamonds or squares; prick them, and bake in a quick oven. Bake best right on the grates.

CONFISE.—The best way to cook codfish is to strip it of its skin and cut in pieces about the size of one hand; place it in water and allow it to simmer on the stove until it becomes tender. It should never be allowed to boil, as boiling hardens and darkens the fish and deprives it of its flavor.

The Brayton Oil Engine.

The Brayton gas engine, a motor driven by the combustion of ordinary street gas mingled with air, and now quite well known to engineers, has been made the basis of another invention of somewhat similar nature, in which the motive power is furnished by burning a mixture of crude petroleum vapor and air. The oil engine, as far as we have been able to learn, and judging from our own brief inspection of its workings, bids fair to be a successful machine, and one of considerable utility to those who require light power, but who wish to avoid the inconvenience of steam. The engine which we saw in operation was alleged to be of five-horse power, and served to run a variety of metal-working machine tools.

DANGERS OF PORT WINE.—Port wine is more dangerous than any other kind of wine by the side; and as it is also a wine more adulterated than any other, people should be extremely cautious as to what they are using. A new adulteration of this wine has recently been introduced, which is in some cases dangerous, especially when partaken of by feeble or delicate persons. It is an artificial coloring, consisting of a mixture of azulin and magenta red. The aniline colors, objectionable in themselves, are the more dangerous because they not unfrequently contain arsenic. The adulteration is detected by shaking the suspected wine (and all cheap wines are to be suspected) with an equal volume of amylic alcohol (fusel oil). If the wine is genuine port, the amylic alcohol remains colorless; but if adulterated, it dissolves out the coloring matter, and itself appears of a purple red color.

HOW TO FLOAT.—Men are drowned by raising their arms above water, the unbogged weight of which depresses the head. Other animals have neither notion nor ability to act in a similar manner, and therefore swim naturally. When a man falls into deep water he will rise to the surface and will continue there if he does not elevate his hands. If he moves his hands under water, in any way he pleases, his head will rise so as give him free liberty to breathe; and if he will use his legs, as in the act of walking (or rather walking up stairs), his shoulders will rise above the water, so that he may use the less exertion with his hands, or apply them to other purposes. These plain directions are recommended to the recollection of those who have not learned to swim in their youth, as they may be found highly advantageous in many cases.—The Sanitarian.

DOMESTIC ECONOMY.

Nutritive Value of Cocoa.

The nutritive constituents of cocoa correspond very closely with those of beef, and largely exceed those of milk and wheat flour; hence the importance of this substance as an article of food. In this respect it differs widely from tea and coffee, which are, perhaps, rather condiments and stimulants than foods, or flesh-formers. The following table, drawn up by Mr. John Holm, of the Edinburgh chemical society, shows the position of cocoa as compared with three other well known articles of food:

Table with columns: ARTICLES, Cocoa, Milk, Meat, Wheaton Flour. Rows include Fat, Associated substances, Starch, Gum, Sugar, Water, Salts, Woody fibre, Cellulose, Coloring matter, Ash, Extractive matters, Theobromine, Paris.

Thus, although one-half the weight of cocoa consists of cocoa-butter, it still presents 20 per cent. of albuminoid material, as against 4 per cent. in milk, 20.75 in beef, and 14.6 in wheat. It addition it contains starch, which is present neither in milk nor beef, but in smaller proportion than in wheat. The value of cocoa as a food is thus apparent, and fully justifies the high eulogiums which have been passed upon it.—Pop. Science Monthly.

ONIONS.—It is admitted that the majority of people like onions as food, and, only for the perfume, many would eat them who now do not.

FRUIT JUICES.—The juice of the apple and pear, says Mr. Knight, may be used to great advantage in preparing a beverage. He has frequently, he says, reduced it by boiling to the consistency of a weak jelly, in which state it has remained several years without the slightest apparent change, though intentionally exposed to variation of temperature. A large quantity of the inspissated juice would take up but little space, and the addition of a few spoonfuls to a quart of water would at any time form a delicious, wholesome, refreshing drink, free from all intoxicating properties. Its cheapness would be greatly in its favor. On sea voyages it would be a great luxury. We suggest experiments with it in the field of domestic economy.

BOILED RICE.—Wash and drain off one pint of good new rice; put into a covered saucepan with one quart of boiling water. Boil briskly for five or ten minutes, or until the water is mostly absorbed; then set on one side of the stove, and let it steam steadily fifteen or twenty minutes. Keep closely covered all the time, and do not stir it at all after it begins to boil.

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