

SCIENTIFIC AND USEFUL.

Few realize the power stored in coal for man's use. It is stated as a scientific fact that in a boiler of fair construction a pound of coal will convert 9 lbs. of water into steam.

INDIA-RUBBER.—One criterion for good rubber has been that it would float on water, its specific gravity being 0.985. The addition of any mineral adulteration, of course, renders it heavier than water, and it sinks; but recently cork has been introduced as an adulteration; and as it injures quality without increasing its weight, specific gravity becomes an insufficient test of quality.

SMILABILITY OF GUM AND BLOOD.—From experiments made with pyrogallio acid, Struvé concludes that gums perform a function in plants analogous to that of the blood in animals. Pyrogallio acid in contact with alkalies oxidizes rapidly, becoming of a dark brown color.

VOICE OF FISHES.—At a recent meeting of the Académie des Sciences, M. Charles Robin read a report on the investigations of M. Dufosse relating to the production of voice in certain fishes. The swimming-bladder appears to be the principal agent in producing voice—at least in those fishes in which that organ has a valve opening into the œsophagus; and even in those in which it is a shut sac, it acts as a sounding-board in augmenting the sound produced by other parts.

THE proprietor of a manufactory of Schweinfurt green—arsenite of copper—in France, was recently sued for negligence to apply proper sanitary protective measures on his premises, such lack of precaution having resulted in the death of two workmen.

COLORS OF MARINE WATERS.—Many local causes influence the colors of marine waters, and give them certain decided and constant shades. A bottom of white sand will communicate a grayish or apple-green color to the water, if not very deep; when the sand is yellow, the green appears more sombre; the presence of rocks is often announced by the deep color which the sea takes in their vicinity.

FAMILY MATTERS.

HOME-MADE CHLORINE OF LIME.—Dissolve a bushel of salt in a barrel of water, and with the salt water slack a barrel of lime, which should be made wet enough to form a kind of paste.

WASHING MADE EASY.—Go to a druggist and buy one pound of soda ash and one half pound of lime; put it in two gallons of soft water, bring it to a boil, then strain. Put in a stone jar and set away for use.

HOW TO RIPEN TOMATOES.—Pick them from the vines as soon as they have their growth, and put them in an upper room before a sunny south window. A painted floor is best to spread them over, as it will draw the heat much better than an unpolished one.

KID GLOVES (TO CLEAN).—Place a fine towel folded on the table, on which lay your glove,

take a piece of flannel, and with the forefinger dip it lightly into milk, then rub it about twice on a piece of common brown soap; proceed to rub the glove, commencing with the thumb, and as the flannel fingertip becomes dirty, change it till no dirt comes off the glove.

PINE APPLE PRESERVE.—To every pound of fruit, weighed after being pared, allow lb. of loaf sugar and a quart of a pint of water. The plums should be perfectly sound, but ripe. Cut them into rather thick slices, as the fruit shrinks very much in boiling; pare off the rind carefully, that none of the pine be wasted, and in doing so notch it in and out, as the edge cannot be smoothly cut without great waste.

GOLDEN GRAINS.

In communicating ideas to other minds be simple, natural, concise, and earnest.

By Love's delightful influence the attack of ill-humor is resisted, the violence of our passions abated, the bitter cup of affliction sweetened, all the injuries of the world alleviated, and the sweetest flowers plentifully strewn along the most thorny paths of life.

LOVE does not go by words, and there are times when conventionality is impossible. There are people who understand one another at once. When one soul meets another, it is not by password, nor by halting sign, nor by mysterious grip, that they recognize.

HAD I children, my utmost endeavors should be to make them musicians. Considering I have no ear, nor even thought of music, the preference seems odd, and yet it is embraced on frequent recollection. In short, as my aim would be to make them happy, I think it the most probable method. It is a resource which will last them their lives.

LIVE LIKE LOVERS.—Some people—men and women both—when they have got married, think they may do just as they please, and it will make no difference. They make a great mistake. It will cause all the difference in the world. They should be more devoted after marriage, if they have the slightest idea of being happy.

YOUR IDEAL LADY.—When a young man is able to support a wife and a household, he should marry. But a few cautions may be suggested. He ought to consider what he has to give, as well as what he expects to receive. If he expects all the graces and virtues to reside in a woman—personal beauty, agreeable manners, intelligence, efficiency, prudence, good management, devoutness, affection—by what right does he lay claim to the heart of such an one? What rare creature are you, that such a paragon should be yours? Is it modest or manly to suppose that you have only to ask to receive? There is a wiser method of selecting a wife. Let one find in his own class and on his own level one who is fairly his equal.

HUMOROUS SCRAPS.

THE creditors of an absconding Yankee banker found, on opening his safe, that the only thing he had laid up for a rainy day was an umbrella.

A WORCESTER lady was prevented from attending the funeral of her aunt by being unable to prepare a mourning bustle in time. Had it been her mother-in-law's funeral she would have gone any way.

WHILE a Texas man was trying to anchor his mule to a stake, recently, the animal managed to get the rope around the man's neck, and then ran away at the top of his speed. The widow wants to sell the mule.

IN one of Lord Brougham's last speeches his false upper teeth fell out, and there was an embarrassing silence until they were restored, when he remarked that his teeth had given him a good deal of trouble ever since he had cut them.

A YOUNG drug clerk committed suicide a few days ago. At the inquest the coroner asked a fellow clerk of the deceased if he knew of any cause for the suicide. "No," was the reply; "he was getting along nicely, and was going to be married next month."

ried, was he?" exclaimed the coroner. "That will do. We have got at the bottom of this business."

WHEN Handel once undertook, in a crowded church, to play the dismissal on a very fine organ there, the whole congregation became so entranced with delight that not an individual could stir till the usual organist came impatiently forward and took his seat, saying, in a tone of acknowledged superiority, "You cannot dismiss a congregation. See how soon I can disperse them!"

A REPORTER for a Western paper, speaking of a certain fair creature, remarked that "the profusion and color of her hair would lead one to look upon it as though it was spun by the nimble fingers of the easy hours, as they gilded through the bright June days, whose many sunny rays of light had been caught in the meshes, and were contented to go no further."

FOND OF "LOO."—A mild and affectionate wife in Lancaster overheard an acquaintance remark that her husband was too fond of loo. She waited up for him that night, and when he came home demanded to know if he had been spending his time with "Loo."

A WASHINGTON papers tells of an elegantly-dressed young lady who went into one of the dry goods stores on Pennsylvania avenue, bought a spool of cotton, and requested the proprietor to have it sent home. Overwhelmed with the important duty so suddenly thrust upon him, he immediately procured an express wagon and detailed a clerk, who, lifting the spool into the wagon, drove with it to the residence of the young lady, and, dismounting, rang the bell, and, when the door was opened, placed the spool upon his shoulder and carried it into the hall, and gently placed it on end, as if it had been a barrel of flour, and then retired.

THE following dialogue occurred in the Faubourg St. Honoré, Paris, between a patriarchal gentleman and his granddaughter.

"What makes your hair so white, grandpapa?" inquires the maiden. "I'm very old, my dear; I was in the ark," says grandpapa, humorously, but with a reckless regard for truth, which does not prepossess us in the old man's favor. "Oh," says the child regarding her with a fresh interest, "are you Noah?"

FAIR SPECIMENS OF AMERICAN NEWSPAPER REPORTING.—A couple of dogs were having a dispute on the opposite side of a slat fence in High-street, the other morning, when one of them, letting his valor get the better of his discretion, plunged his head through the slat, in hope of nipping his antagonist. That was where he made the mistake; the head went through nicely, but would not pull back. The other pup, seeing his foe was in chancery, leisurely commenced eating up the front part of his head and ears. There was "music in the air" about that time, and the yelping brought the juvenile owner to the rescue. He took in the situation at once, and freezing on to the dog's tail, and bracing against the fence, he pulled his level best. For a moment it was doubtful which would give way first, the tail, the head, or the pocket; but with a final surge, the boy brought away the pup, minus the biggest part of both ears. The first jump that that dog made was something over 20 feet, and with a continuous wall of grief he disappeared around the corner.

A PROMINENT manufacturer of Springfield, Mass., has just been taught, at the expense of a broken carriage, the impropriety of meddling in other people's affairs. He was going to Chicopee; when about half way thore he saw a cat and a black snake locked in a close embrace. The possibility of their being lovers at first occurred to him, but their wild and vicious manifestations convinced him that they meant war. Then his sympathies were enlisted for the cat, and as its ally, he procured a big stick, and brought it down with a terrific thwack, not upon the snake as intended, but upon the cat, which, with inconceivable rapidity, scratched him three or four times, and dashed between his horse's legs and out past his nose; whereas that sagacious beast materially increased his

nose's safety by standing on his hind legs. Then he tipped the buggy over and set out for home while his master laughed hysterically and clapped both bloody hands to his shirt bosom, as the snake leaned up against the fence, and seemed to be trying to set a dog on the unhappy ally, as he trotted away.

OUR PUZZLER.

99. DOUBLE ACROSTIC.

Two gallant steeds both famed in story, Each bore a hero on to glory. The conqueror of a world my first bestrode, As through the foeman's ranks he furious rode. My second carried Albion's pride That day when Gallia's star was pale, And took its famous name From a city all in flame, As the roar of British guns swelled the gale.

- 1. Cold is the breeze of the northern sea, But the ice breaks up, and the ship sails free.
2. A grim revengo and horrid feast, His teeth in the skull of the traitor priest.
3. The white tents shine in the morning light, And the warriors arm for the coming fight.
4. Last, softly beautiful as music's close, Angelic woman into being rose.
5. A mightier arm than sword and shield, Yet asks no strength its force to wield.
6. Better to seek in breezy fields for me, Than to the doctor for me pay your fee.
7. The Church had launched its dreaded host, But not a soul seemed much the worst.
8. How speeds the good ship through the foam! The fire burns brightly in many a hom.
9. A gentle spirit of the stream, Not free from human woe I ween.
10. Reformer of a nation's code, Which ere he came was writ in blood.

100. DOUBLE ACROSTIC.

A novelist in Britain born, Whose writings literature adorn, Initials name. A work of merit by him pen'd, Drawn with deep pathos to the end, Final proclaim.

- 1. An instrument much played of old.
2. A metal this, resembling gold.
3. Circle or orb, 'twill surely prove.
4. A bird—symbol of peace and love.
5. Old Priam's son, by serpents slain.
6. An English county, 'tis quite plain.
7. Here British valour won the day.
8. Name this wild animal, I pray.
9. Part of a theatre, in truth.
10. An Indian potentate, forsooth.

101. SQUARE WORDS.

- 1. A knot; to accustom; the name of an English Queen; to urge; drove.
2. A place of restraint; inactive; worth; to deceive; an amphibious quadruped.

102. CHARADES.

Dreaming one fine summer day, As close to the little brook sitting; On a moss-covered bank by the way, I watched the fleet swallows at play, As over the stream they were flitting.

My first in the distance I heard, As my second so slowly went round; So still was the air, not a single leaf stirred, And hum of the bee, or sweet song of the bird, Mingled soft with my whole's pleasant sound.

My second she was at our home, We both lost our first when out walking; She was so determined to roam, So my whole it was no use talking.

ANSWERS.

97. CHARADES.—1. Starling. 2. Partridge. 3. Parrot. 4. Cow-lips. 5. Pageant. 6. China. 7. Bride-groom. 8. Chaff-inch.

98. ANAGRAMS.—1. Charles Kingsley. 2. John Stuart Mill. 3. Robert Browning. 4. Thomas Carlyle. 5. Henry Lord Brougham. 6. Augustus Jerrold.

99. SQUARE WORDS.—1. ODER, DEXL, DARU, ERKO, ERIS, ERNO, RUSK, LOOP.

100. NUMERICAL WORD PUZZLES.—1. Voice. 2. Woman. 3. Olive. 4. Clock.