

FAMILY MATTERS.

From the Family Herald.

Home, in a measure, is what the presiding spirit of the family makes it—the brightest or the gloomiest spot on earth.

No one can help being superficial, but each one can help mistaking superficiality for thorough knowledge.

Opinion is the main thing which does good or harm in the world. It is our false opinions of things which ruin us.

It is the best, because the most benevolent, good breeding which, without regard to personal preference, deals to all in general society an equal, or at least a fair, measure of social attention.

As the tree is fertilized by its own broken branches and fallen leaves, and grows out of its own decay, so men are bettered and improved by trial, and refined out of broken hopes and blighted expectations.

A boy who has learned that it is manly to be tender to the weak is rarely a coward, for the strength and courage of his nature are developed by teaching him to protect those who cannot defend themselves.

As the rose-tree is composed of the sweetest flowers and the sharpest thorns; as the heavens are sometimes fair and sometimes overcast, alternately tempestuous and serene; so is the life of man intermingled with hopes and fears, with joys and sorrows, with pleasures and with pains.

Each of us as we travel the way of life, has the choice, according to our working, of joining all the voices of nature into one song of rejoicing, or of withering and quenching her sympathy into a fearful silence of condemnation, or into a crying-out of her stones and a shaking of her dust against us.

Good manners must spring from the innate dignity and gentility of a man's nature, or they are worth nothing. A gracious manner that is assumed, a pleasant or sympathetic word that is spoken as a mere passing flattery or without any real feeling, can easily be distinguished; the ring of the true metal is wanting.

Good nature, benevolence, and consideration should always have a place in our intercourse with others. Never laugh at people, or turn them into ridicule, or show an exclusive preference for the more useful or attractive to the neglect of those who are older and of greater importance.

The gifts of knowledge enables a man to enjoy all he sees. Every one can redeem himself from that animal life which is a living death. The object of education is to make the most of life, by which is meant not the attainment of mere worldly success, but an esteem for what is really good, a desire to benefit one's fellow-men, and, above all, to find a real peace with God.

Skeletons there must and will be in every cupboard, but the most hideous specimen of the kind is family ill-will. No country can prosper with civil war gnawing at its heart; and a house divided against itself must sooner or later inevitably come to grief. Tact and worldly wisdom will go far towards the prevention of family jars, but kindness, mutual forbearance, and self-control will go still farther.

Play and rest at proper seasons are essential to the production of "a sound mind in a sound body." But the object of having that sound mind and sound body is that the possessor of them may be enabled to do that work in life for which his tastes and talents fit him. He is to serve the present age. Rightly considered, his period of rest is not so much a device for his amusement as it is a preparation for further work. He rests in order that he may afterwards work longer and do better service.

BUSINESS FAILURES.—No man truly succeeds in any calling who has a poor opinion of it. No man has a good opinion of his business who uses it only to make money out of it. No man can have the best conception of his business who does not esteem it for its usefulness. And the higher we go—if "higher" and "lower" are proper terms to use in considering the different honorable and useful walks of life—the more clearly will it appear that he who esteems his business only for the living or money that is in it must, if judged by any high standard, be a failure.

BRAIN-WORK.—So long as a brain-worker is able to sleep well, to eat well, and to take a fair proportion of outdoor exercise, it may safely be said that it is not necessary to impose any special limits on the actual number of hours which he devotes to his labors. But, when what is generally known as worry steps into complicate matters, when cares connected with family arrangements or with those numerous personal details which we can seldom escape intervene, or when the daily occupation of life is in itself a source of anxiety, then we find one or other of the three safeguards broken down.

DUTY IN LIFE.—A man is put into this world to do a certain share of the world's work, to stop a gap in the world's fencing, to form a cog, however minute, in the world's machinery. By the defalcation of the humblest individual some of its movements must be thrown out of gear. The duty is to be got through, and none of us may shirk our share. Stick to your post, like a Roman soldier, enduring the watches of the night. Presently morning will come, when every phantom must vanish into air, every mortal confront that inevitable reality for which the dream we call a lifetime is but a novice and a school.

SCIENTIFIC AND USEFUL.

From the London Family Herald.

The most important elements of plant-food are carbonic acid, water, potash, phosphoric acid and nitrogen.

Lamp-chimneys are easily cleaned by holding them over the steam from a tea-kettle, then rubbing with a soft cloth, and finally polishing with paper.

Flanges jointed with a cement of cast-iron drillings and filings, mixed with sulphur and sal-ammoniac moistened with water, have been found to become quite inseparable.

Cure for ringworm: Wash the part affected with a little lemon-juice; then rub in with the finger a little indigo which has been bruised in a mortar. Do this gently about twice a day.

Lather for cleaning windows: One part of olive-oil, one part of spirit of ammonia, two of chalk or whiting, and one of water. Mix to a thick paste.

To make papier-mâché for fine small work, boil clippings of brown or white paper in water, beat them into a paste, add glue or gum and size, and press into oiled moulds.

Violin varnish: Twelve parts sandarac, six parts shellac, six parts mastic, one hundred a. fifty parts ninety-five per cent. alcohol, six parts Venice turpentine; mix and dissolve warm.

Enamelled or glazed bricks, for outside or interior decoration, are made by applying to the surface a flux, which during the burning causes the silica to melt and form a vitreous covering. Such flux is easily colored, and thus very beautiful fancy bricks are produced.

Green paint for Venetian blinds which will stand the heat of the sun without blistering. Rub two parts of white lead and one of verdigris with nut-oil or linseed oil varnish, mixed with oil of turpentine, and dilute both colors with ordinary drying-oil.

Wooden trays for photographic purposes: Make them of white pine. Halve the corners, put them together with brass screws. Soak the tray when made in hot paraffin, or make the joints with glue to which has been added a little bichromate of potash. Expose to daylight for ten or twelve hours, and finally varnish heavily with alcoholic shellac varnish.

The process of fastening ferns to a book is very easily accomplished. With a small brush gently touch the back of the fronds here and there with a little common gum, putting only sufficient to keep the fronds from turning up. Place a piece of blotting-paper on the top of the fern, and put a weight on top of the book, and when dry the process is complete.

A French physicist has been making researches recently into the action of cane-sugar and treacle on iron, and finds that they corrode iron with the formation of an acetate of the metal. The fact is of practical utility in connection with boilers, because it happens sometimes that sugar gets into the water supplied to boilers in sugar-refineries, and consequently tends to deteriorate the boilers.

A medical practitioner, writing to the *Lancet*, says that for some years he has treated all his scarlet-fever cases with, in addition to the ordinary treatment by salines, an application every day of one in twenty carbolic oil to the whole of the surface of the body. By this means he has always been able to prevent the disease from attacking others in the house; and he has noticed that all cases so treated from the beginning have done well.

To curl feathers after the curl has come out of them by washing the feather or getting it damp, place a hot flat-iron so that you can hold the feather just above it while curling. Take a bone or silver knife, and draw the fibres of the feather between the thumb and the dull edge of the knife, taking not more than three fibres at a time, beginning at the point of the feather and curling one half the other way. The hot iron makes the curl more durable.

The abolition of resistance is absolutely necessary in connecting a lightning-conductor with the earth, and this is done, say Professor Tyndall, by closely embedding in the earth a plate of good conducting material and of large area. The largeness of area makes atonement for the imperfect conductivity of earth. The plate, in fact, constitutes a wide door through which the electricity passes freely into the earth, disruptive and damaging effects being thereby avoided.

TO COLOUR COPPER AND NICKEL.—The following process is given in the *Journal des Appl. Electriques*, by which it is said eleven different tints can be produced upon copper and eight upon nickel. The articles are thoroughly cleaned and polished, and placed in the following solution: Acetate of lead, thirty-one grains; hyposulphite of soda, ninety-three grains; water, one quart. The bath must be heated nearly to the boiling-point before the copper or nickel articles are placed in it, when a grayish tint is first produced, which changes successively to violet, chestnut-brown, red, and blue, including the intermediate shades. When any desired color is obtained, the articles are withdrawn from the bath, washed, dried, and varnished. This process is especially adapted to the coloring of buttons or similar small metallic articles.