

Vol. 14 Feb. no. 2

Pacific Health Journal

PACIFIC HEALTH JOURNAL

Published Monthly by the

PACIFIC PRESS PUBLISHING CO., OAKLAND, CAL.
FOR THE

St. Helena Sanitarium, St. Helena, Cal.

50 Cents per Year Single Copies, 5 Cents

Address All Mail to

Pacific Health Journal,
St. Helena, Cal.

Entered at the Post-office in Oakland

EDITORIAL COMMITTEE:

A. J. Sanderson, M. D.; F. B. Moran, M. D.; G. H. Heald, M. D.; J. A. Burden.

WORKING OUT HEALTH.

"LIFE is a continual grind," is a common proverb which contains much truth. We may inherit money, lands, and other fortunate environment; we can not inherit a good old age. It is always the result of a healthy, active life. Every part of the body was made to act. Inactivity or wrong activity will surely result either in disease or weakness to the body. Right activity, which proportionately involves every portion and tissue of the body, will not fail to end in the blessing of health. Our body is a complex vital machine, most wonderful in the working of all its parts. Like every other machine, it is made to do work. If its purposes are not carried out, it will either rust or decay. A machine that with proper care will run and do perfect work for many years, may if neglected and left inactive become worthless in a comparatively short time. Such is the truth of the common expression, "It is better to wear out than to rust out."

Machinery does not create. It is simply an instrument for using energy to

a greater advantage. A printing-press provided with paper and ink will turn out the printed pages; an engine provided with fuel will do a large amount of work. The more perfect the machine, the better the work it will do, and with the least expense to the machine itself. The machine that does the most perfect work is the most durable.

The human body, capable as it is for every form of work, produces results by receiving and using the gift of air, food, water, and other environments which are so freely bestowed upon every individual by the command of nature. It is merely a matter of receiving and giving, and the more that is given out the better will be the giver, and the more capable he will be of receiving from the inexhaustible supply. Said the great Teacher, "It is more blessed to give than to receive." A body that receives only, can not long live, but there is endless blessing to the body which is constantly giving out from that which it has received. Every unit of natural, active work that is done by the body results in life to the individual. The scriptural expression, "Work out your own salvation," is natural law. It is the scriptural recipe for health, and is as actually true to the physical life as to the spiritual. In fact, salvation is health. Perfect health of mind and soul and body is all that eternity can ever give to any one. Such a state is only the result of, and can only come by, righteousness. Right activities of body and mind, put forth in the strength and right using of the gifts with which Providence has so bountifully supplied the body, will yield health in the fullest sense. Those ac-

tivities are subject to the unchangeable laws, in harmony with which the best results can only be obtained.

One of the fundamental principles in these laws is found in the expression "work out." The mind must have its motive, its purpose, outside of itself. The stronger the purpose the better the result. To take exercise for the sake of producing muscle, is but a sick substitute for natural work. A walk for health with only a walk in view, will be disappointing in its results. The same walk with all the beauty, harmony, and curiosity of surrounding nature in mind, will be much more beneficial. The more intensely the thought is absorbed in the external, and the least conscious the nerve intelligences of the physical act of walking, the better will the vital forces renew themselves. The harder the effort to do, provided the amount done is within the limit of the person's capacity for work, and the more intensely the consciousness is fixed upon the external, the greater will be the effect in the renewing of the life, energy, and structural growth.

Hard work makes the man. It sends everything toward the surface. After good, healthy exercise in the open air, the skin becomes healthy in its glow, the countenance puts on a robust appearance, and the blood courses through the extremities, and all the superficial parts of the body, and the centers of life, such as the heart and vital organs, are left free to send forth the fountain of youth toward the world without—toward the Giver, the Creator.

Every part of the body needs to be put to hard employment. The person who has lived at ease for a year will be weak to the extent that his life has been easy. The dyspeptic who places himself upon a liquid, predigested, or easily digested food for a year, will have worse dyspepsia at the end than when he began such a course of diet. The digestive or-

gans to become strong need to be educated to hard work, not carried on under the inspecting eye and watch-care of the individual, but under the influence of active life in occupation that absorbs all the attention. The respiratory system and all the functions of the body need to have their powers occasionally used to their full capacity; and all these energies should be used for an outward purpose—for strength, for duty, for love.

A. J. S.

BREAKFAST DISHES.

WITHOUT doubt one of the most frequent causes of indigestion with the American people is the method of preparing and eating breakfast food. In this age of rush, far too many people in the morning take only a few moments to carelessly eat food that has been placed upon the table with little or no preparation, and the result of eating such a meal and then going out into the most active part of the day's work is sure, in nearly every case, sooner or later, to bring about disorders of digestion. There are far too many breakfast foods placed upon the market that are entirely unfit for use,—such foods as are claimed to be ready for use with only a few moments' cooking. Prepared breakfast foods are only wholesome when they have been thoroughly cooked by long processes while being manufactured. These can be, with impunity, used as a breakfast dish without further cooking. But with this exception there is no food, which requires cooking at all, that is fit to be placed in the human stomach without being cooked a sufficient time for the changes to take place which should come about through the process of cooking. Breakfast should be the most thoroughly masticated meal of the day. Attention to these matters would save a great deal of dyspepsia from which people suffer.

FOOD VALUES.

THE following table of food values, which is intended to accompany the table of food requirements published in the January HEALTH JOURNAL, will enable one to determine the nutritive value of any ordinary dish of food.

To find the food value of an ounce of prepared food, multiply the values here given by the number of ounces of the uncooked food, and divide by the weight of the food in ounces after it is cooked. These results, multiplied by the number of ounces of food served to a dish, will give the nutritive value of the dish. Suppose, for instance, that 10 ounces of rice, when cooked, weigh 43½ ounces. There would, of course, be the same food value in the 43½ ounces of the cooked rice as there was in the 10 ounces of raw rice. The food value of the raw rice is found, by multiplying the values in the table by 10, to be 22 grams protein and 1,020 calories. Dividing by 43½, we find the nutritive value of one ounce of the cooked rice to be .5 grams protein and 23.4 calories. A dish of rice weighing 5 ounces would have a food value of 5 times as much, or 2.5 grams protein and 117 calories.

If several ingredients enter into the food, the nutritive value of each ingredient is determined as above, and the sum of these values divided by the weight of the cooked food, and the result multiplied by the number of ounces in a dish.

To find the value of a dish of vermicelli soup containing 7 ounces vermicelli, 4 quarts milk, and 4 yolks of egg; the soup when finished made 6 quarts, or 42 dishes—

OPERATION.			
Vermicelli, 7 oz.,	23.1 gm. protein	717	calories
Milk, 4 qts., 140 oz.,	126 "	2,800	"
Egg, 4 yolks,	.8 "	212	"
	149.9	3,729	"
Dividing by 42 gives	3.5	83	" per dish.

In this way one can estimate the value of a loaf of bread, a dish of soup, or any other food, and can know for himself whether he is using up vitality in the digestion of a surplus of food.

A later article will give values of some ordinary prepared dishes.

Food values per ounce of raw material (arranged from the reports of the United States Department of Agriculture):—

	Gms. Pro.	Calories
Flour, whole wheat or graham.....	.4	104
Flour, roller	3.2	103
Macaroni and vermicelli.....	3.3	102½
Farina.....	3.1	107
Barley, pearled.....	2.6	104
Corn meal and hominy.....	2.4	103½
Oatmeal	4.3	116
Rice.....	2.2	102
Honey	—	87
Molasses.....	.7	82
Sugar, granulated.....	—	116
Milk, whole.....	.9	20
Milk, skim.....	.9	10
Buttermilk.....	.8	10
Cream.....	.7	57
Butter.....	—	217
Eggs, each.....	7.5	82
White, each.....	7.2	29
Yolk, each.....	2	53

VEGETABLES, AS PURCHASED.

Asparagus .....	.5	6½
Beans, dried	6.3	100
Beans, dried, Lima.....	4.5	101
Beans, green, Lima.....	.2	36
Beans, string.....	.6	15
Beets.....	.4	11
Cabbage.....	.5	9
Carrots .....	.25	10½
Cauliflower head.....	.4	11
Celery.....	.4	5
Egg plant.....	.3	8
Greens .....	.1	17
Lentils.....	7.2	102
Lettuce.....	.3	5
Onions.....	.4	13
Parsnips.....	.4	18
Peas, dried.....	6.7	102½
Peas, green.....	.6	12½
Peas, sugar .....	.9	21
Potato .....	.5	21
Potato, sweet.....	.4	30
Pumpkins.....	.15	4

	Gms.	Pro.	Calories
Spinach .....	.6		7½
Squash .....	.23		8
Tomatoes .....	.2		6½
Turnips.....	.3		8½
Apples, as purchased.....	.11		16
Apricots .....	.3		16
Bananas .....	.2		18
Blackberries .....	.25		15
Cherries .....	.3		16½
Cranberries.....	.14		14
Figs.....	.4		24
Grapes.....	.28		20
Lemons.....	.2		9
Muskmelons .....	.8		6
Nectarines.....	.16		18
Oranges .....	.17		10
Pears.....	.14		15
Plums.....	.28		23
Prunes.....	.2		21
Raspberries .....	.28		16
Strawberries .....	.25		10
Watermelon .....	.05		3½

DRIED FRUIT.

Apples.....	.4		76½
Apricots.....	.8		77
Currants.....	.34		85½
Dates .....	.53		86
Figs.....	1.4		87
Prunes.....	.56		72
Raisins.....	.7		102

SANITARIUM FOODS.

Granola, per ounce.....	4.2		114
Granose, per ounce.....	4.4		117
Granose, per biscuit.....	2.7		74
Zwieback, per slice.....	3.2		87
Crackers, plain, each.....	1.9		57
Crackers, sweet, each.....	1.6		63
Oatmeal biscuit	2.5		125
Oatmeal wafers.....	1.25		62½
Rolls, each.....	1.6		59
Sticks, each.....	1.		36
Nut butter, per ounce.....	7.3		160
Nucose, per ounce.....	5.3		112
Nutlet, per ounce.....	4.5		100
Malted nuts and ambrosia	6.5		140
Bromose, per cake	2.9		72
Maltol, per ounce.....	—		136

NUTS, MEATS ONLY.

Chestnuts.....	4.1		100
Walnuts	4.5		165
Hazelnuts.....	4.9		187
Almonds.....	6.6		170
Coconuts.....	1.6		98

G. H. H.

RETAINING YOUTH.

A RECENT writer has commented on the commonly-recognized fact that man begins life in a more or less gelatinous condition of all the tissues of the body, and ends it in an ossified, or bony form. In youth all the bones are of a cartilaginous nature. As the individual develops, they become hardened, and give rise to the firm skeleton of the body. This process of ossification, however, does not end with the hardening of the bones. The animal matter of the framework of the body becomes lessened as age advances, and the bones thereby become more brittle, and subject to injury or disease. This deposit of mineral matter does not always confine itself to bones, but we find it in various other portions of the body. Especially is it liable to become incorporated in the structure of the arteries, and is a marked sign of advancing age. With some individuals it becomes so largely incorporated into the structure of the walls of the blood-vessels that they become hardened, and feel like whip-cords under the finger when the pulse is taken. This results in the loss of elasticity of the blood-vessel walls and lack of power of their being dilated and allowing the blood to flow sufficiently into the tissues so that the latter become properly nourished. As a result, people become aged at an early period, and the most important functions of the body are either enfeebled or degenerate on account of lack of nutrition.

Nearly all the food we eat contains a large amount of this mineral matter, and, naturally, all that is not needed for forming in the body the proper consistency of the bones, is eliminated. Sometimes in children it is too freely eliminated, causing a continuation of a large proportion of animal matter in the bones, and consequently the framework has not sufficient hardness, resulting in a condi-

tion of the body known as rickets. In old age the opposite process is liable to occur, and there is not enough elimination of mineral matter in the body, and it becomes deposited, forming diseased conditions.

What is needed to retain youthful conditions of the system is the proper use of mineral salts that enter into the body. For them to be freely eliminated, healthful exercise through every stage in life in the same proportion which children so naturally give to their years, is essential. The use of an abundance of water is also necessary. Many recommend the use of distilled water after middle life. However, this is probably not wise, because distilled water does not contain the same living properties as that which naturally flows from the spring. Pure water which is free from mineral matter is essential. This, taken freely, together with the use of a large quantity of juicy fruits, are means which will aid in preventing senile changes taking place in the body.

A. J. S.

TREATMENT OF "BLACK EYE."

DR. MAY suggests the following rational treatment for black eyes:—

"When seen early, before discoloration has set in, cold compresses or evaporating lotions are indicated. These will reduce the swelling and limit the subsequent discoloration. If seen after the discoloration is fully developed, hot compresses and massage are required. The affected portion is smeared over with vaseline, and rubbed for ten minutes several times a day. By means of frequent massage and continuous hot applications the discoloration may be almost entirely removed within twenty-four hours."

In the March number Dr. Heald will begin a series of articles on "The Fruit Cure."

SANITATION IN SANTIAGO.

VERY favorable reports are given as to the improved condition of this city, which for the last few months has been under new rule. According to descriptions, the sanitary condition before had been most dreadful, and no doubt has been the cause of the great amount of yellow fever and other epidemics that have prevailed there and throughout other parts of the island of Cuba. Sanitary commissioners have been actively engaged in doing thorough work in cleansing the city, and Robert P. Porter, the special commissioner from the United States, who has been visiting the island, has sent in good reports.

Heretofore the streets have been used for sewers, and other like gross violations of the common laws of sanitation were everywhere prevalent. There have been 126 men and 32 mule teams engaged in cleaning the streets and cleansing the city; they have carried away the filth that was everywhere present, and improved the conditions of sewerage, etc. All garbage has been gathered up and burned, by the aid of petroleum. The streets are put in an absolutely clean condition, and the public houses have been likewise improved. Great difficulty has been experienced in getting the natives of the place, who have long been living in this careless way, to cooperate with these new laws. It was found necessary to use harsh measures. Sanitary laws have been strictly enforced, and to bring this about the people found violating them were compelled to work on the streets for thirty days. This and other measures, with the public discussion of sanitary needs, are gradually improving the condition of the inhabitants.

If a cellar has a damp smell, and can not be thoroughly ventilated, a few trays of charcoal set on the floor, shelves, and ledges will make the air pure and sweet.

Sanitarium Question Box

[Taken from *Parlor Lectures by Dr. A. J. Sanderson.*]

99. Are disease germs liable to enter the system through the use of vegetables?

Germs which cause disease in the body are, as a rule, only those which feed upon animal tissue, and can not live and thrive in vegetable substances. Hence it is not at all likely that they would enter the system through the use of vegetables.

100. Is sugar injurious to the stomach?

Common sugar is not a natural food for the digestive organs. It has no place for digestion in the alimentary canal until it reaches the small intestine. Children do not have the digestive glands in this location developed, so that children who are given sugar before the time when they cut their teeth are simply placing within the stomach something that can not digest, and will surely ferment and cause indigestion. With older people it does not digest until it passes the mouth, stomach, and the upper duodenum. In these localities it remains for hours and it will surely undergo fermentation if there is any yeast or other germs to give it a start. As a little sugar added to the mixture in making yeast, and added to milk in making koumyss, will encourage rapid fermentation, so when a little sugar is put into the stomach it usually sets up a like process, which ends in a sour stomach and kindred troubles.

101. Can coconut be prepared in a way to be a nutritive article of diet?

It is stated by those who have lived upon the islands that fresh coconut, with the oil taken from it, is a very wholesome food. But when brought to the continent it is usually rancid, and other changes have taken place which render it more or less unwholesome.

102. Will the juice of a healthy stomach kill typhoid germs?

The gastric juice in its perfect state is a good germicide; but the germs of typhoid fever are found not to be destroyed by this digestive fluid, while it readily destroys the germs of cholera and other disease bacteria. There are few stomachs, however, that have a perfectly normal gastric juice, and it is not safe to avoid any possible precaution against allowing the germs getting as far as that into the system.

103. Is it injurious to drink water with meals?

As a rule it is best not to drink but a very small quantity of liquid with meals, and the majority of people will do well to take no fluid whatever while eating. Gastric juice and other fluids contain a large amount of water, and these glands are prepared to furnish all the moisture that is needed and all the liquid that is necessary in order for the digestive agents to do their best work. The taking of water only hinders the activity of these glands. The water taken with the meal dilutes the digestive fluids, and the digestive processes are likely to have to stop until this extra amount of fluid is absorbed.

104. What are the best food combinations?

Those which are the most simple. As a rule, the fewer combinations the better. Grains are very good used with fruits. In fact, grains are wholesome with all kind of foods. Grains and vegetables, grains and milk, grains and eggs, grains and nuts, all combine very nicely. Vegetables can be taken nicely with eggs, nut

preparations, or breadstuffs. Milk can be used with sweet fruits, but makes very bad combinations with acid or sub-acid fruits or fruits with a fibrous or coarse texture.

105. Is butter injurious to the stomach?

Butter is not the most wholesome form of free fat. Unless very fresh, it is sure to be more or less rancid, and often while fresh, germs which make it rancid in a short time are present in the stomach and produce butyric and other irritating acids. Butter when taken with other food is usually so combined with the food that it hinders the gastric work. Butter is not digested in the stomach, and when it is so combined with the food as to encase particles, then the gastric fluid can not properly perform its work, and fermentation arises. People who use much butter often take it in combination with hot bread, hot biscuit, and other warm food, so that it becomes the most unwholesome possible.

106. Is mush particularly healthful?

Mush, if it is properly cooked and properly eaten, with the right combinations of food, is a healthful article of diet as a breakfast dish. However, a diet of mush, or of food with the consistency of mush, is not a good diet.

107. What causes secretion of mucus in the stomach?

Every stomach has more or less mucus in connection with the secretion which flows from its mucous membrane. There are mucous glands associated with the gastric glands. The object of these mucous glands is to keep the walls lubricated so that coarse particles of food, or the acid of the stomach, and other conditions, will not irritate the walls. Mucus also prevents the stomach walls from irritating each other when that organ is

empty. Mucous catarrh of the stomach is simply where there is an excess of this secretion.

108. Does washing the stomach have a curative effect upon the accumulation of mucus?

No; on the other hand, washing the stomach rather stimulates the flow of mucus. Mechanical interference by the use of the stomach tube will create a secretion, which comes mostly from the mucous glands. If there is mucus present in the stomach in connection with acidity and other morbid secretions, it would best be washed out. Otherwise the mucus should be left to take its natural course, that of lubricating the stomach and passing on to lubricate the alimentary canal below.

109. Will taking peroxide of hydrogen into the stomach an hour before meals render its condition sterile?

This remedy should not be depended upon for use in digestive disorders. There are some conditions in which this or other oxygen preparations can be prescribed with advantage, but it should not be done habitually. It is a good destroyer of germs, but the quantity that can be used in the stomach could not render it sterile. It is not curative in its action. The only cure for this condition is to avoid putting anything that is not sterile into the stomach, and keeping the stomach clean by wholesome food and pure water.

110. Will drinking a glass of hot unsweetened lemonade an hour before meals remove the mucus in the stomach?

This often has a very good tonic action upon the stomach and liver when taken before meals, and when it starts up sufficient peristalsis and cellular action in these organs, it may cleanse the mucus from the upper part of the alimentary canal.

TUBERCULOSIS FROM COWS' MILK.

SIR HERBERT MAXWELL gives, in the December number of the *Nineteenth Century*, a summary of a report of the Royal Commissioners on their investigation of tuberculosis among animals. They are said to believe that there is "no doubt that the largest part of the tuberculosis which man obtains through his food is by the milk containing tubercular matter." The reason assigned for this is the universal practise of the people of the British Empire to use milk without its being sterilized. Especially is it true of that given to children. Investigations show that the tuberculosis is far more prevalent among dairy cows than any other class of domestic animals. This is simply due to the habits and surroundings of the cows kept for the purpose of obtaining milk.

The commissioners very strongly advocate the use of the tuberculine test among animals, and believe that it should be universally applied, that the country may be rid of the cattle that are suffering from this disease.

The matter of sterilizing milk, as long as the cows have not been thoroughly tested, is emphasized as being of great importance, and stress is laid upon the fact that tuberculosis in infancy—commonly classed under the head of infantile diarrhea—is very prevalent, owing to the ravages of this dread disease, which goes on unchecked.

A. J. S.

HABIT-PRODUCING drugs of every kind, very soon and most surely, cause disease-producing habits. Opium in all its forms, nicotine, and all beverages containing alcohol, are of this class. No man or woman can use, daily, even a small quantity of either and remain in mental or physical health.—*Cordelia A. Greene, M. D.*

THE SIN OF SICKNESS.

BY DAVID PAULSON, M. D.

"I BESEECH you, therefore, brethren, by the mercies of God, that ye present your bodies a living sacrifice, holy, acceptable unto God, which is your reasonable service." Rom. 12:1. The idea is conveyed in this passage that to present our bodies in a *living, active* condition is a requirement made of us by God. We may understand the meaning that Paul attaches to the text here quoted by looking back to the sacrificial system. A sickly, miserable offering could not be accepted to typify a perfect Christ, but a time came when the people so far lost the sense of this that the prophet says: "And ye brought that which was torn, and the lame, and the sick; thus ye brought an offering: should I accept this of your hand? saith the Lord." "Will a man rob God?" Mal. 1:13; 3:8. The sensibilities of the people had become so blunted as to God's requirements that they seemed to have an idea that these sickly and degenerate animals, which were only a loss on their hands, would be as acceptable to God as perfect ones. So in our day, although God demands of us living sacrifice, and terms it a reasonable service, yet there are many who think they can glorify God just as well with their bodies in a sickly and miserable condition, and that God will accept this service equally as well as that done in perfect health. In fact, in many of the Sunday-school books the idea is made very prominent that sickness and saintliness rather go hand in hand; but sickness only brings a man to Christ in the same way that a prison experience does,—by breaking into man's selfish plans; the sickness and the genuine prison experience both spring from the same root: they are both the result of violated law. Health should be as sacredly guarded as character, or the laws which govern people.

When we grasp the truth in 1 Cor. 6: 20, "Ye are bought with a price; therefore glorify God in your body," we shall see that we are in duty bound to glorify God physically the same as spiritually, and we shall appreciate the force of the principle that "health should be guarded the same as character." There are few that would argue that a sickly religious experience is as acceptable in God's sight as a healthy and active one; and the same is *equally true* of the condition of our bodies.

What a responsibility this lays upon us to guard our physical organism! It is not merely an inconvenience to be sick, but it becomes a religious duty to be well; and, therefore, "knowledge must be gained how to eat, drink, and dress so as to preserve health." But there are many who make no special effort to gain this knowledge, and who look to God to keep them in health, when He has laid the responsibility upon them by asking them to fulfil certain conditions, so that He can consistently grant them the blessings of health and strength. "God is greatly dishonored by the way man treats his organs, and He will not work a miracle to counteract a perverse violation of the laws of health and life." This same thought is also conveyed in Prov. 28: 9: "He that turneth away his ear from hearing the law, even his prayer shall be abomination." This is just as true of physical law as of spiritual, and the person who knowingly violates the laws of his being, and still asks God to bless him with physical health, can be assured that such a prayer is "abomination," and that God will not work a miracle to counteract a violation of His own law.

This is, perhaps, brought out still more definitely in the following quotation: "Many have expected that God would keep them from sickness merely because they have asked Him to do so. But God

did not regard their prayers, because their faith was not made perfect by works. God will not work a miracle to keep those from sickness who have no care for themselves, but are continually violating the laws of health, and make no effort to prevent disease. When we do all we can on our part to have health, then we may expect that the blessed results will follow, and we can ask God in faith to bless our efforts for the preservation of health. He will then answer our prayer, if His name can be glorified thereby. But let all understand that they themselves have a work to do. God will not work in a miraculous manner to preserve health of persons who are taking a sure course to make themselves sick, by their careless inattention to the laws of health." "Those who thus shorten their lives by disregarding nature's laws are guilty of robbery toward God."

Thus it must be evident to all that sickness and premature death are robbing God of the service which is due Him; and that when we lay the foundation for this by neglecting to inform ourselves as to how to care for the body God has given us, we are sowing the seed for this sin. "Will a man rob God? yet ye have robbed Me."

A POOR sufferer dying with cancer is not so much to be pitied as the habitue of opium or alcoholic stimulants.

A tablespoonful of the finest whisky, one-eighth grain of morphine, or one-half grain of opium taken daily, continuously, will fix the habit upon the best man or woman in the world.—*Cordelia A. Greene, M. D.*

RICHES should be employed for the getting of knowledge, rather than knowledge for the getting of riches.—*Matthew Henry.*

EARLY PERUVIAN SURGERY.

AMONG a thousand skulls recently brought home by a party of archaeologists from the tombs and burial vaults of the early Peruvian Indians of the age of the Incas, eleven are of peculiar interest to surgeons. On each of these eleven skulls the operation of trepanning, or trephining, had been performed.

The operation of trephining, as most persons know, consists in removing a circular portion, or "button," of the skull.

In each of the skulls, which were from the tombs of persons who lived and died before the discovery of America by Europeans, the operation of trepanning had been performed. Usually an oval "button" had been removed. In one case a large, irregularly-shaped portion of the bone had been excised, as if several different operations had been made; and in this case a silver plate was found inside the skull.

Apparently these operations were performed by the use of some kind of knife, instead of a saw. In five cases the subjects had survived and recovered, as was clear from subsequent bony growths about the orifices in the skull. In three cases the patients had manifestly died not long after the operation; and in still another case the operation had been abandoned after the skull was in part cut through, as if the sufferer had died under the surgeon's knife.

It is inferred that the operation of trepanning may have been a common one with these aboriginal surgeons, particularly with those attached to the armies of the Incas. The principal weapon of war was then a spiked battle-club, which would naturally inflict many wounds where trephining would be called for; and the doctors seem to have been equal to the emergency.—*Selected.*

WHAT is true wealth?—Health.

HABIT OF LIFE AND SPIRITUALITY.

BY DAVID PAULSON, M. D.

WHEN God spoke out of heaven, "This is My beloved Son," some said, "It thunders." Their nerves were so blunted by their habits of life that they could not comprehend the spiritual voice that spoke to them. We have a good illustration of this in the case of the priests; after taking strong drink, their nerves were so paralyzed that the common fire seemed like the sacred to them; hence the solemn injunction, "Do not drink wine or strong drink, . . . that ye may put difference between holy and unholy, and between unclean and clean."

When God speaks to us by His Spirit, He does not pour it directly through the skull, but He uses the very avenues that He Himself pronounced very good at creation, namely, the nerves. He appeals to sight, hearing, taste, smell, and feeling. Just in proportion as man chloroforms his nerves by wrong habits of eating and drinking, by indulgence of lust in any form, in just that same proportion he is dwarfing his ability to hear the voice of God and to appreciate even what he does hear. But God wants to come to His temple, the body, and sit there as a refiner and purifier of the temple, so that the man may offer an offering in righteousness. When Christ cleansed the earthly temple of its defilement, the sick were brought in and were healed; so when we cooperate with God in cleansing the temples of our bodies, then health and life will be perfected in us.

THE USEFUL LEMON.

THE relations of fruit to digestion are particularly interesting. Perhaps the most important is the influence of the juice of fruits upon germs. Fruit juices are disinfectants. They are germicidal. The

juice of the lemon is as deadly to cholera germs as corrosive sublimate, or sulphur fumes, or formaldehyd, or any other disinfectant. It is so powerful a germicide that if the juice of one lemon be squeezed into a glass of water that is then left standing ten or fifteen minutes, the water will be disinfected; it makes little difference where the water has been obtained, or whether it has been boiled or filtered. This is a fact worth knowing, for any of us may find himself under circumstances in which it is impossible to get either boiled or filtered water. In such a case, the juice of a lemon will purify the water perfectly.—*Good Health.*

PHYSICAL IMMUNITY OF THE ARAB.

THE *Lancet* publishes the interesting fact noted by M. Vincent and reported at a meeting of the Academy of Medicine recently held in Paris, that French soldiers are fully a hundred times more susceptible to typhoid fever than are native Arab soldiers. M. Vincent holds the opinion that this exemption of native Arabs from infection by typhoid fever does not depend upon a previous attack nor upon a gradually-developed immunity by the use of water contaminated with typhoid fever germs, but to a natural immunity. An examination of the blood by the reaction method showed no serum reaction. It is thus shown that the immunity possessed by the Arab consists in ability to resist the invasion of typhoid-fever germs.

The difference between the Frenchman and the Arab in his ability to resist infection must be largely attributable to the difference in the dietary and modes of life of these two classes of men. The French nation has degenerated, within a few centuries, to a remarkable extent. Although descended from a magnificent race, the gigantic Gauls, who were able

to strike terror into the hearts of their Roman enemies by means of their majestic stature and marvelous physical prowess, they have come to be, through the influence of wine, absinthe, immorality, and other deteriorating causes, almost the smallest of European people. The average Frenchman devotes a considerable part of his energies to animal gratification. The Arab, on the other hand, is abstemious, a fact well illustrated by an incident reported by a traveler:—

“Meeting an Arab in the desert on a very hot, sultry day, he offered him a drink from his canteen, and was astonished at the reply he received, which was this: ‘No, thank you; this is not my day to drink. I drank yesterday.’”

A handful of grapes and a small barley cake constitute a day's rations for the Arab. De Lesseps stated publicly that he never could have constructed the Suez Canal without the aid of the date-and-barley-eating Arabs, who alone were able to endure the necessary labor in the unfavorable climate of that region. The writer is personally acquainted with a man who was an assistant civil-engineer under De Lesseps in the construction of the Suez Canal, and recently received from this gentleman an account of observations which exactly tallied with those of De Lesseps.—*Modern Medicine.*

JUST ENOUGH AND NO MORE.

AN old colored servant once told General Washington the secret of life in a few homely words. Said he, “Gin'ral, if you want a good night's sleep, set up de night befo.” In other words, if you desire keen senses and lively enjoyment in the commonplace acts which constitute nine-tenths of life, stint yourself.

Give every normal want a reasonable gratification only. Moderation is the golden mean between indulgence and

asceticism. A broad knowledge and general application of economics constitute the science of living.

To illustrate: If you stint your diet, such food as you do take will be received gratefully by the stomach which has accumulated surplus energy. Every organ in the body will be eager and work hard for its supply of pabulum. Assimilation is therefore improved. A satisfied stomach means a healthy liver, regular bowels, sound and resistant nerves, dreamless and refreshing sleep.

Just the right amount of exercise means a healthy degree of fatigue, even distribution of blood, and a relief of nervous tension, predisposing to rest and recuperation. Too much exercise causes active congestions and undue nervous exhaustion; too little exercise results in passive congestions and accumulative nervous irritability.—*Medical Brief.*

PREVENTABLE DISEASE.

WHILE progress in civilization has brought greater care of human life, there is yet a prodigal waste. Dr. A. Hill, vice-chancellor of Cambridge University, states that one-fourth of all the diseases that destroy life are absolutely preventable, and that if the practise of hygiene were only on a level with its theory the average longevity would be raised at once from 50 to 65 years. The greater number of diseases over which the individual has control are due to mistakes in eating and drinking. One purpose yet to attain is a more exact knowledge by every citizen of the causes and properties of preventable diseases, but it is hardly surprising that the knowledge is still so slight when even medical men hardly realized the contagious character of consumption twenty years ago, altho one-third of the cows in England are tuberculous, and half the milk sold distributes the bacillus of tuberculosis.

GODDESS OF LIBERTY, LOOK NEAR BY!

GODDESS OF LIBERTY, listen,
Listen, I say, and look
To the sounds and sights of sorrow
This side of Sandy Hook.
Your eye is searching the distance ;
You are holding your torch too high
To see the slaves who are fettered,
Though close at your feet they lie;
And the cry of the suffering stranger
Has reached your ear and your breast,
But you do not heed the wail that comes
From the haunts of your own oppressed.

Goddess of Liberty, follow,
Follow me where I lead,
Come down into the sweat-shop
And look on the work of greed;
Look on the faces of children
Old before they were born ;
Look on the haggard women,
Of all sex-graces shorn ;
Look on the men—God help us—
If this is what it means
To be men in the land of freedom
And live like mere machines.

Goddess of Liberty, answer ;
How can the slaves of Spain
Find freedom under your banner
While your own still wear the chain?
Loud is the screech of the eagle,
And boastful the voice of your drums,
But they do not silence the wail of despair
That rises out of your slums.
What will you do with your conquests,
And how shall your hosts be fed,
While our streets are filled with desperate
thongs,
Crying for work or bread?

—*Ella Wheeler Wilcox.*

THOUGHTFULNESS OF OTHERS.

BY MRS. S. M. I. HENRY.

AMONG the little attentions that should become habits in youth, because they help to that "appearance" which will serve as adornment to every good doctrine, is the placing of the chair in the most comfortable position for another; seating grandfather or grandmother, father or mother, at the table; adjusting the

light; picking up articles that have been dropped; not waiting to be asked to help if you should see that father, mother, or any one else is looking for something that they do not seem to be able to find quickly; or, if they are trying to save your steps by getting along with some inconvenience which you see might, by a little effort on your part, be made to give place to convenience, coming at once to their help with such cheerfulness as only true courtesy in the heart can give.

No boy or girl, man or woman, will lose anything in the long run by that sort of thoughtful care for others that is known as politeness. In traveling, or in passing in and out of a crowded church or hall, the truly well-bred man will never be found struggling in the midst of a jam to get through the door into the best seat, or up into the train before any one else. If he is caught in a jam, he will not elbow people right and left, but, while protecting his person, and those who are depending upon him, from actual injury, will find his own chance of getting out of the tight place by helping others out.

In this selfish world nothing so quickly touches the popular heart as that sort of Christlikeness which is recognized as politeness to strangers in public places; as gentleness in helping the weak, and taking care not to add to the burdens of those who are hard pressed with heavy responsibilities. The man who obtains control of the highest quality of influence is the one who has either from childhood been trained to think those thoughts that blossom out into beautiful considerateness, or who has taken himself in hand and, by vigorous self-training, has pruned off the growth of selfish heedlessness, and grafted in the gentler graces of the Spirit.

One W. C. T. U. lecturer had been painfully impressed with the fact that baggagemen had to handle such heavy trunks. This was before so many little

wheeled contrivances had been placed at their disposal. She accordingly supplied herself with two small trunks, just alike, in place of the one large one, for no other reason than to save the backs of the men. Her kind intention was kept to herself for years, and went unrecognized, until, at length, one day she encountered a grumpy old baggageman who seemed to have a special grudge against any woman with two checks. He was from the first moment very uncivil, threatened her with a charge of excess of baggage, and many other dreadful things. She said but little, only went quietly along to the baggage-room, found the two diminutive parcels for him, and waited. He looked at them, then at her, colored like one who was ashamed of himself, and said, "Be them all?"

"Yes, those are all."

"Well, what made you make two of 'em?"

"That is my way of helping to lift one big trunk," she said.

"Your what?"

"My way of helping you to lift one big trunk."

"It is! Well, I never! You did it to save our backs?"

"Yes; I never wanted any old man or boy to strain himself over a big trunk for me, so I divided mine in two."

"Well!" ejaculated the grumpy old fellow, who evidently did not know of anything more to say. His whole heart had suddenly mellowed; his eyes grew red, and his hands trembled, as, taking off his cap, he changed those checks with the air of one who was performing some act of religion. When he came with the two little bits of metal to the waiting passenger, still carrying his cap in his hand, and when she took them with a, "Thank you," and put them into her purse, he looked timidly into her face, as if to see if he could possibly be forgiven. She chose

not to make much of the incident, so she did not seem to notice his perturbation, but with a simple, "Good-day," left the baggage-room; but she knew very well that that old baggageman would never forget, and would, perhaps, be kinder to all the big trunks in future for the sake of those little twin products of her kind intention.—*Review and Herald.*

IF I WERE YOU, MY BOY.

I WOULD learn to be polite to everybody.

I wouldn't go in the company of bad boys who use bad language.

I would see if I couldn't get people to like me, by being good and kind to everybody.

I would never make fun of children because they were not dressed nicely.

I would keep my hands and face clean and hair brushed, without being told to do so.

I wouldn't get sulky and pout whenever I couldn't have my way about everything.

I wouldn't be ashamed to do right anywhere. I wouldn't do anything that I would not be willing for everybody to know.

I would try to learn something useful every day, and whenever I saw anything made, I would watch and see how it was done.

I would never cheat nor be unfair in my play.

I would never call anybody bad names, no matter what anybody called me. One can never throw mud and keep his own hands clean.

I would never lie. Even white lies leave black spots on the character.

I would never make fun of a companion because of a misfortune he could not help.

I would never hesitate to say, "No," when asked to do a wrong thing.—*Selected.*

THE MAN IN HIS HOME.

THE seclusion of a home gives to a man a certain freedom and attendant privileges which no other place in the world affords, and it is right that it should. But it is not right that this freedom and those privileges should be abused to the disadvantage of the wife. Too many men seem to have the idea that they can drop into constant disconsolate and churlish moods at home with their wives which in any other place and by any other person would not be tolerated. It is when a man is within the walls of his home that he is himself. Then it is that he should be at his best. When a man gives the best that is within him to those closest to him, his home will be the ideal place that he wishes it to be. No man has a right to expect from his wife what he on his part does not give her. If he wants her sympathy, he must give her his consideration. If a man lacks the element of consideration, he should cultivate it, and cultivate it not for the benefit of his friends, but for those in and of his home. Consideration should begin at home, not in the home of friends, as it so often does—and ends there, too. The atmosphere which a man creates in his home by example becomes the rule by which his children live. The husband and father strikes the key-note for right or wrong living.—*Ladies' Home Journal.*

TEACHING DECEIT.

BY MRS. MCVEAN-ADAMS.

"If there is anything I hate, it is to see a child cry for whatever he wants, until he gets it. I am just determined my baby shall never do that way," says a young mother. "See how cute he is, playing all alone and amusing himself. Come here, baby dear, and hug mozzer."

Baby dear is very busy building up blocks, and does not come. "Oh, poor

mozzer will have to cry, if baby don't hug her!" Still baby, absorbed in castle-building, does not come. Mother covers her face with her handkerchief; her shoulders are shaken with sobs, and she makes a strange imitation of baby's cry.

Aroused at last, baby is somewhat puzzled as to what it is all about; but he goes to comfort mother, who lifts from her handkerchief a smiling face. This is baby's first knowledge that mother can deceive. He will never fully believe in mother's grief again, even though her heart may be breaking. The young mother, unconscious of the crisis upon them, catches up baby and kisses him, saying, "There, I *thought* mozzer would get a hug if she *cried*."

Baby has ordinary intelligence. He has learned the lesson. When he wants candy, he cries for it. At first he gets it; but when the habit has become fixed, and he is older, he is whipped for crying for things.

Who should receive the whipping?—*New Crusade*.

BUYING A PAPER.

"HERE, boy, let me have a paper."

"Can't."

"Why not? You've got them. I heard you crying them loud enough to be heard to the City Hall."

"Yes, but that was down t'other block, ye know, where I hollered."

"What does that matter? Come, now, no fooling; hand me a paper, in a hurry."

"Couldn't sell you a paper on this here block, mister, cos it b'longs to Limpy. He's jest up the furdest end now. You'll meet him."

"And who is Limpy? And why does he have this block?"

"Cos us other kids agreed to let him have it. Ye see, it's a good run on 'count of the officers all along, and the poor chap is that lame he can't git around

lively like the rest of us, so we agreed that the first one caught sellin' on his beat should be thrashed. See?"

"Yes, I do see. So you have a sort of brotherhood among yourselves?"

"Well, we're a-goin' to look out for a little cove what's lame, anyhow."

"There comes Limpy now. He's a fortunate boy to have such friends."

The gentleman bought two papers of him, and went on his way down town, wondering how many men in business would refuse to sell their wares in order to give a weak, halting brother a chance in the field.—*Ex.*

HOW TO GROW.

GAIN comes in the effort to give, rather than in the effort to get. Muscular power comes through the use of the muscles in honest exertion, in struggles for the mastery, or in endeavors to help others, not through extra doses of any special nourishment that is warranted to increase muscular vigor. So mental power grows through speaking and writing, through endeavors to make truth clear to others, not through mere reading, or studying, or the effort to fill the mind so as to have it full. Spiritual power increases through the exercise of spiritual power, not through the desire to gain in spiritual power. The power to love grows through loving more and more, not through a desire to love more—far less through the desire to be loved. The power to get and the power to give come by giving rather than by getting. Self is helped only by forgetting self.—*S. S. Times*.

THE world is wide
In time and tide,
And God is guide,
So do not worry.

That man is blest
Who does his best
And leaves the rest,
So do not worry.

SOME RECIPES.

BY J. E. PATTERSON.

RICE TOMATO SOUP.—Mince one onion, one carrot, and a few sprigs of parsley together, and put it in the soup kettle. Strain one quart of tomatoes on the vegetables, add two quarts of water and four tablespoonfuls of rice, and cook thirty minutes. Thicken with a little braided flour before serving.

ORANGE SALAD.—Peel and slice one-half dozen oranges; stone four ounces of Muscatel raisins. Scatter on the bottom of a glass dish a small quantity of the latter, and place over it a layer of the orange. Continue to alternate until the oranges and raisins are used. Pour a pint of unfermented wine over the fruit; cover the dish and let stand for two hours before serving.

MACARONI PUDDING.—Boil eight ounces of macaroni twenty minutes and with it line a small agate baking pan. Soak six ounces of bread in one and one-half quarts of cold water or milk; add a teaspoonful of chopped parsley, and a little salt. Mix well and add any macaroni that may be left. Turn the mixture into the lined pan, cover with a piece of oiled paper, and bake forty minutes in slow oven. If water is used, add four tablespoonfuls of nut cream to the bread mixture. If milk is used, add three eggs, and whip well. Serve hot with brown sauce.

NAVY BEAN CROQUETTES.—Cook a pint of navy beans tender, and mash them. Add one ounce of bread crumbs, two tablespoonfuls of skimmed cream. Salt to taste. Shape into balls; apply egg and bread crumbs and bake in quick oven fifteen minutes. Serve hot with gravy made from the broth in which the beans were cooked, thickened with a little braided flour and a little thick cream added.

SCIENTIFIC COOKERY.

THE article on food values in this number may prove somewhat uninteresting to the casual reader, but to one desiring to know his actual food requirements, the tables will be especially valuable.

In succeeding JOURNALS, tables will appear giving the food value of cooked foods by the ounce and by the dish. We hope also to furnish a number of menus consisting of dishes which will meet the requirements of simplicity, attractiveness, economy, and a proper proportion between the nitrogenous and carbonaceous elements.

The JOURNAL has in the past given menus of a more or less complicated nature, involving time in their preparation, and suited more to the wants of vigorous than of feeble stomachs; but we firmly believe that dishes can be prepared which will meet all the above requirements; and our experimental kitchen, in charge of an enthusiastic cook, will be taxed to its utmost to develop new dishes which, while tempting the most fastidious palate, will not offend the most delicate stomach.

It will be the aim of this department of the HEALTH JOURNAL to demonstrate in a practical manner that a simple diet is the most healthful, and that, sooner or later, the appetite—however perverted it may have been—will call for the simple foods in preference to those more complicated.

This is one field where science and art must go hand in hand. The skill of the cook must be supplemented by the knowledge of the chemist and physiologist in order to secure the best results.

Of one thing our readers may be assured: no recipes will be given which have not been found to be successful in one of our kitchens.

G. H. H.