

Life & Health

Winter

1917



MAY - JUNE

SIXPENCE

Australia's Home of Health

WARBURTON, VICTORIA



THIS institution has been established for the purpose of treating persons suffering from all kinds of diseases except infectious cases. For those who are "run down" and require a bracing atmosphere or a change of diet, the Home of Health is the ideal place. The institution is well equipped for treating disease by the most modern methods. Maternity and surgical cases receive special attention. Registered by the Board of Health as a Private Hospital.

Send to-day for illustrated booklet and further information to

THE MANAGER, Australia's Home of Health,
Mt. Donna Buang Road,

Warburton, Victoria

Telephone 5, Warburton Exchange



Don't Risk Dissatisfaction with that New Costume!

If there were any real reason for doing so—if there was a price consideration to be taken into account, perhaps a risk would be justified, but since there's no real reason and our prices are uniquely moderate, you really should in the name of common sense make your Costume Satisfaction certain, and

HAVE IT "LINCOLN-STUART"
TAILOR-MADE TO ORDER

The styles shewn here are typical
of the splendid range of designs at
your disposal in connection with our

Special Offer at £4-4-0

All-wool Indigo-Dyed Twills and High-Grade Covert Coatings of seasonable weight are the materials provided—stuffs that we can guarantee unconditionally. The special price rules FOR A LIMITED PERIOD ONLY, so if you're wise you'll

WRITE FOR PATTERNS and
STYLE-FOLDER—TO-DAY



LINCOLN, STUART & COMPANY Pty. Ltd.

"COSTUME SPECIALISTS"

Flinders Street

Melbourne

Victoria



MAZDA

Drawn Wire Filament Electric Lamps

BRITISH MADE
VERY STRONG FILAMENT
VERY LOW CURRENT Consumption

Used by

Victorian Railways
General Post Office
Melbourne City Council
Melbourne Electric Supply Co.
Electric Supply Co. of Victoria (*Ballarat & Bendigo*)
And other large bodies



Australian General Electric Company

Cor. Queen & Lt. Collins Sts., Melbourne Cor. Wentworth Avenue & Goulburn St. Sydney

NEW WINTER FUR COATS

As Merchants we have cause to know the wisdom and economy of placing our orders with the Manufacturers long in advance of the regular season.

Never have we shown such a complete assortment of rich dependable Fur Coats as now, and the prices are lower than they will be again this season. We strongly advise an early selection, as prices are sure to be higher.

Included are Seal Dyed Musquash, Natural Musquash, Silver Musquash, Coney Seal; Silver, and Natural Grey, New Zealand Rabbit; Tasmanian Rabbit, Squirrel, and a variety of others.

Also a great variety of children's Fur Coats in Grey Kid, White Hare, and New Zealand Rabbit in Brown or Natural.

Ladies are cordially invited to walk round and view for themselves the sterling values offered.

BALL & WELCH Pty. Ltd.

180-188 Flinders Street,

::

Melbourne

It is easier to shop at my desk with Craig's than to waste my energies in a shopping tour.



THE above is from a letter of a grateful CRAIG customer. It expresses the sentiment of many letters that reach us daily, showing a genuine appreciation of

Craig's Shopping Service

Not until you yourself have tested this service—not until you have let CRAIG'S perform some important shopping errand—can you know its great convenience.

Instead of spending long hours searching in the shops, instead of paying costly railway fares to Melbourne, instead of putting up with the scanty selections of your home town, just write to CRAIG'S. Ask for a New Winter Style Book. Tell on what page you saw the article needed, enclose its price, and CRAIG'S will send it to you—AT ONCE. This service is much more than a convenience—CRAIG'S Shop-by-Post Department does nothing, day in and day out, but execute such commissions. And whatever article or articles you want will be carefully packed and sent to you, freight being paid on DRAPERY parcels to the value of £2 or over.

Another Advantage of Shopping by Post

Dress materials should be chosen by daylight. If you cannot go to the shop—let the shop come to your home; in other words, take advantage of CRAIG'S

Shop-by-Post System—have patterns cut from the actual rolls sent to you—and marked at Melbourne's lowest prices.

Have a Packet of Patterns of These Sent to You FREE

New Gabardines, Tweeds, Etc.

New Season Heavy Cheviot Frieze Tweeds, in Green, Heather, and Navy shades, 48 in. wide; because bought early by CRAIG'S, 3/6 yd.

Surprising Value in Celebrated Fox's All Wool Hopsack, Best British dye, and delightful textures, 50 in. wide, worth 8/11 yd. At CRAIG'S 7/6 yd.; 54 in. wide worth 9/6 yd. At CRAIG'S, 7/11 yd.

The Famous All Wool "Craig" Maritime Serge, in beautiful full-toned Navy, 54 in. wide, guaranteed dye and weight that makes up into graceful folds. Worth 8/11 yd. Made specially for CRAIG'S 7/11 yd.

20 Pieces Only Superior Navy and Black Coating Material, 44 in. wide, worth 4/6 yd. Because bought early by CRAIG'S, 3/11 yd.

New Covert Coatings, in all new shades including all shades of the new green, 54 in. to 60 in. wide. At

CRAIG'S, 5/6, 6/6, 7/11, 10/6, 12/6, 14/6, and 15/6 yd.

New Gabardines, 54 in. to 60 in. wide, full range of New Season tones; Melbourne's best textures. Melbourne's best values at CRAIG'S 12/6, 14/6, and 15/6 yd.

All-Wool Gabardines, a full range of the new colours, 50 in. to 52 in. wide, 7/11, 8/11, 10/6, 12/6, and 15/6 yd.

Navy and Black Coating Serges, 40 to 60 in. wide, splendid range, at 1/11 $\frac{1}{2}$, 2/6, 2/11, 3/6, 3/11, 4/6, 4/11, 5/6, 5/11, 6/6, 6/11, 7/6, 8/6, 9/6, 10/6, 11/6, 12/6, 13/6, 14/6, 15/6, 16/6, 18/-, 19/-, and 21/- yd.

Cheviot Serge, in beautiful qualities in Navy and Black, 3/6, 3/11, 4/6, 5/6, 6/6, 6/11, 7/6, 8/6, and 8/11 yd.

New Scotch Winceys, in close, woolly weaves, showing the latest stripe or check designs, on light or dark grounds, 40 in. wide, 2/3 yd.

New Season Tweeds, in Fawn, Grey, Brown, Heather, and other shades, showing fashionable narrow stripe

and marle effect, at CRAIG'S, 2/11, 3/6, 3/11, 4/6, 4/11, 5/6, 5/11, 6/11, 7/11, 8/11, 10/6, 12/6, to 17/6 yd.

Beautiful New Velveteens

Magnificent array of all the new shades of VELVETEEN, 21 in. wide, worth 2/3 and 2/6 yd.; because bought early by CRAIG'S, only 1/11 $\frac{1}{2}$.

The Celebrated "Craig" Velveteen in all the new tones, such as Brown, Navy, Rose, Cardinal, Wine, Black, etc., with chiffon finish, and guaranteed best pile, because bought early by CRAIG'S, only 2/11 yd.

Scarce Brown Velveteens, in all leading Brown tones; at CRAIG'S, 2/11, 3/6, 3/11, 4/6, and 4/11 yd.

The Famous "Louis" Velveteen, in colourings favoured by Fashion for winter, in a big range; 3/11 and 4/11 yd. at CRAIG'S.

Most Handsome French Silk Velveteens, in beautiful full-hued colour effects, and with magnificent chiffon finish, 40 in. wide, at CRAIG'S 15/6 and 21/- yd.

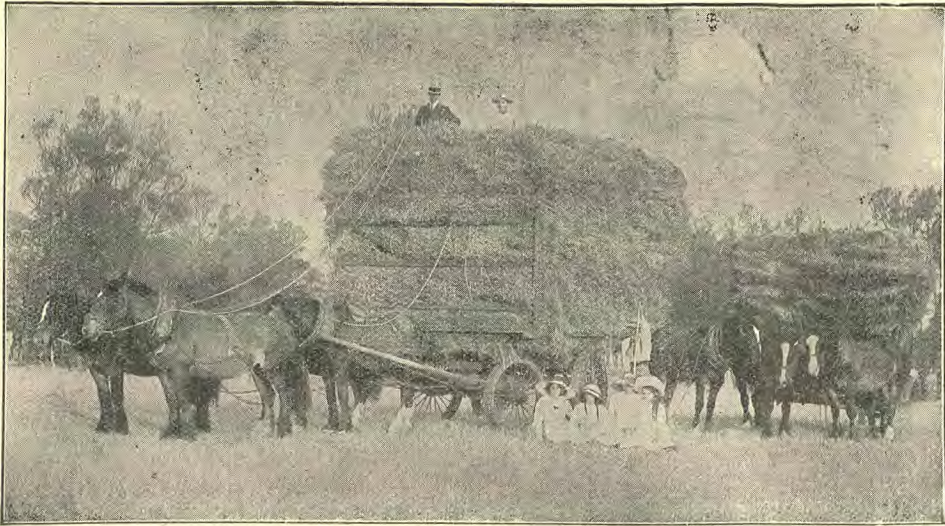
FREE—Handsome New Style Book

CRAIG'S New Winter Style Book is ready and FREE. It is a veritable "Helping Hand." Points out pretty things you desire to wear. Shows latest and best Clothing for every member of your family. Its 72 pages also illustrate latest Carpets, Furniture, Household Requirements, etc. The edition is limited. Your copy is waiting. SEND TO-DAY.

Craig,
Williamson
Pty.—Ltd.

CRAIG'S

"A City in Itself"
8-26 Elizabeth St.
MELBOURNE, Vic.



THIS IS A HILDYARD WIDE-TYRE STEEL-WHEEL WAGGON

The user says:—

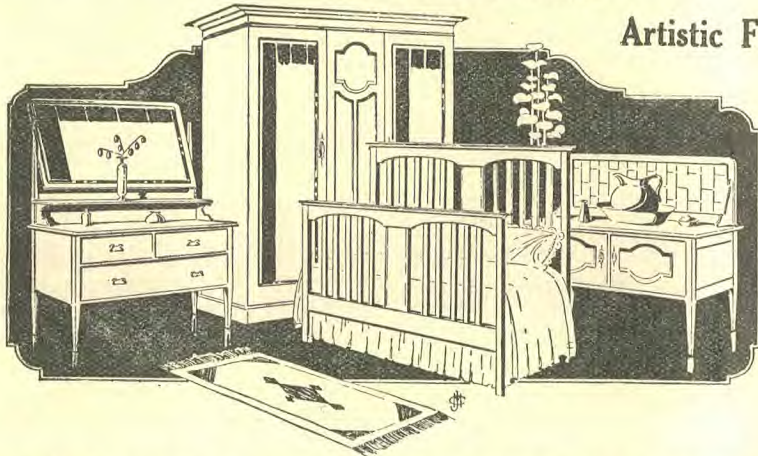
"I am putting 2,000 sheaves on the Steel-wheel Hildyard waggon and only 600 sheaves on the wooden-wheel old-style waggon. Carting only takes half the time now. Six horses pull ninety bags after one inch of rain. It is the lightest and most handy waggon in the world."

Catalogue free Send for one Delivery prompt HILDYARD WAGGON WORKS, KENSINGTON, MELBOURNE

ROBERTSON & MOFFAT PTY., LTD.

"THE HOUSE OF QUALITY"

Artistic Furniture



*New
Bedroom
Designs
At
Most
Moderate
Prices*

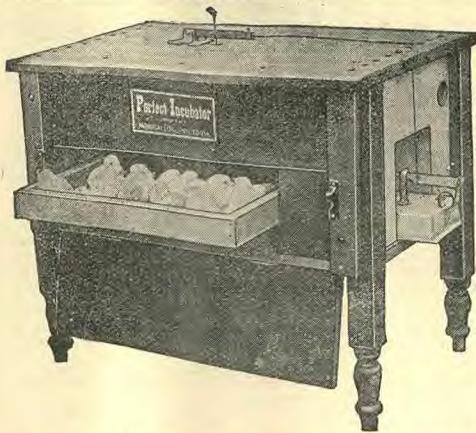
Solid Oak Bedroom Suite—3 pieces, 4 ft. 4 in. Hanging Wardrobe, with two full-length bevelled glass doors and artistic panelled centre frame; 3ft. 6in. Dressing Table, with bevelled swing mirror; 3ft. 6in. Washstand, with marble top and art tiled back; made throughout by White Australian labour; Special Price, £17/10/-.
Bedstead, Double Size, 4ft. 6in., in solid oak, White Labour throughout; Special Price, £3/15/-;
Single Size, Special Price, £3/5/-. **Furniture Catalogue on Request.**

Inspection Invited



BOURKE STREET

PERFECT STANDARD INCUBATORS & BROODERS



Successfully tested by Queensland, New South Wales, and Victorian Governments, and now used by thousands of poultry farmers in Australia, Tasmania, Fiji, South Africa, etc. All sizes. Catalogue free.

50 EGG SIZE, 54/6 BROODER 44/6

ROYAL RED SUSSEX FOWL

is the most profitable English fowl in existence. Eats less, grows quicker than any other variety. Is a reliable winter layer and the world's finest table bird.

EGGS 10/- & 20/- A SETTING.

Stock Birds For Sale

busin-ss. A little money and some common sense will enable you to earn quite a respectable income in your spare time and incidentally provide an easy and congenial occupation. Write me for full particulars, they are free.

Poultry-farming is now a recognised

"Chick Rearing a Certainty"—6d.

JORGEN ANDERSON :: Mordialloc, Victoria

TEL. 4888

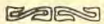
EST. 1868



John Rosier

Under
Vice-Regal
Patronage

Chiropodist, Foot Specialist,
and Surgical Bootmaker



*Perfect Feet Preserved in Their
Pristine Beauty*

The human foot treated on only scientific and natural process. Suffering relieved while maintaining the shape and hiding deformity and malformation.

See testimonials -- Proof undoubted

**Corns, Bunions, and Ingrowing toe nails
treated with utmost safety and
the most delicate touch**

**Orthopedic Institute, 246 Swanston St.,
(Library Side) -- Melbourne**



Use Only the Australian Made

Otto of Rose Toilet Soap

Pure, Fragrant, Lasting

CONTAINS NOTHING OF A DELETERIOUS
NATURE TO THE MOST TENDER SKIN

GOOD FOR BOTH MOTHER AND CHILD

Each cake tastefully wrapped and accompanied by certificate of purity. Dainty box containing 3 tablets, forwarded post free, on receipt of 3/3 in P/N or stamps, or 1 tablet for 1/3.

Modern Perfumery Co., Mig. & Toilet Specialists
Dept. D 152 Elizabeth St., Melbourne

"Fruit is not merely a food, but is one of Nature's best medicines"

FOR "LIFE & HEALTH" GROW YOUR OWN FRUIT

The healthy open air exercise of planting and tending the trees, resulting in the production of fresh, luscious fruits and the benefit derived therefrom, are the best aids to health and longevity

Our stock of fruit trees this season is exceptionally vigorous, clean, and healthy, having been grown under Government inspection. Included is a fine stock of all the leading kinds of apples, pears, plums, peaches, apricots, figs, nectarines, cherries, oranges, lemons, almonds, walnuts, etc., etc. June to August is the best planting season, but order yours AT ONCE to prevent disappointment, as there is always a great demand for some varieties. LIST FREE.

PEAS, BEANS, AND LENTILS FOR COOKING

Green Peas all the year round,
Blue Boiling Marrowfat Peas
FOR CULINARY PURPOSES

An excellent substitute when fresh pulled Peas are scarce. When used in soups, stews, etc., they are delicious, being very sweet and of fine flavour. Perfectly free from colouring matter. 6d. per pkt. 5 lbs., 1/6; 8 lbs., 2/3; 30 lbs., 7/6; 12/6 bushel (60 lbs.)

Soak in cold water over night before cooking

Haricot Beans, 6d. per lb.

Lima Beans, 6d. per lb.

Lentils, Egyptian, 6d. per lb.

Special Quotations for Large Quantities

We are the leading house for all kinds of seeds, plants, bulbs, trees and shrubs, and all horticultural requisites. Write for the latest Catalogues. Post free.

LAW, SOMNER & CO., SEED, PLANT, AND BULB MERCHANTS,

139-141 SWANSTON STREET, MELBOURNE (Tel. 729 Central)

Retail Branch Establishment: 83 SWANSTON ST. (Tel. 1284 Central)

Bulk Store: Mason Lane, off Little Collins Street Wholesale Order Dept.: 322 Little Collins Street

ESTABLISHED 1850—66 YEARS

When replying to advertisements please mention "Life and Health."

CONTENTS



EDITORIAL

Drink and Suicide -	-	-	-	-	-	60
Consumption (Tuberculosis)	-	-	-	-	- <i>W. Howard James, M.B., B.S.</i>	61

GENERAL ARTICLES

The Amount of Food Required in Health	-	-	-	-	- <i>W. Howard James, M.B., B.S.</i>	65
Dr. Haig on Amount of Proteids Necessary for Daily Consumption	-	-	-	-	- <i>W. Howard James, M.B., B.S.</i>	69
The Proper Care of the Hair	-	-	-	-	- <i>Eulalia S. Richards, L.R.C.P. & S., Edin.</i>	70
Neuralgia	-	-	-	-	- <i>G. H. Heald, M.D.</i>	72

THE HOUSEKEEPER

Food for Winter Months	-	-	-	-	- <i>Eulalia S. Richards, L.R.C.P. & S., Edin.</i>	74
------------------------	---	---	---	---	--	----

CHATS WITH THE DOCTOR

W. Howard James, M.B., B.S., Melb.

Loss of Weight; Worms—Ringworms—Decayed Teeth—Nervous Exhaustion—Free Use of Fruit—Moles on the Face—Necrosis of Right Shoulder—Ulcerations of the Mouth—Geographical Tongue (Eczema of the Tongue)—A Complicated Case—Bad Leg—Trembling of Arms and Legs.	-	-	-	-	-	77-80
---	---	---	---	---	---	-------

QUIET TALKS WITH MOTHERS

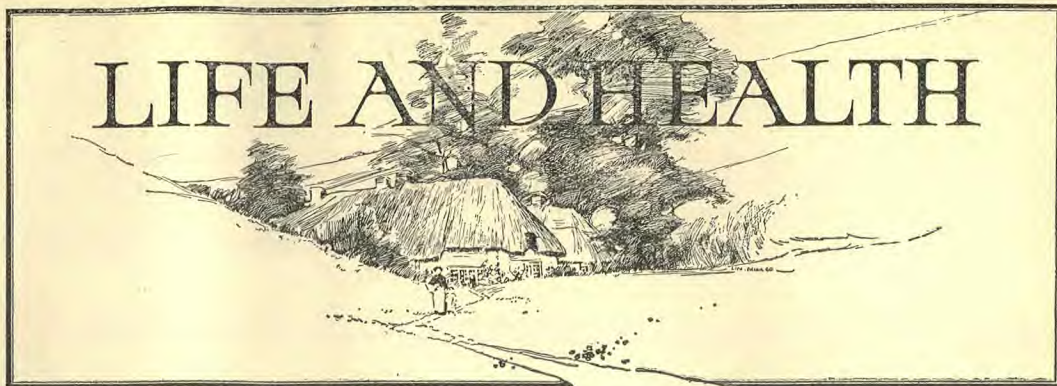
Health Hints for the Nursing Mother	-	-	-	-	- <i>Eulalia S. Richards, L.R.C.P. & S., Edin.</i>	81
Baby's First Six Months of Trouble	-	-	-	-	- <i>Lauretta Kress, M.D.</i>	83
Fussy About Food	-	-	-	-	-	85

THE CHILDREN'S HOUR

The Twentieth Hundred	-	-	-	-	-	86
Scotland Saved by a Thistle	-	-	-	-	-	88



OVER MT. DONNA BUANG, VICTORIA, IN MID WINTER



Vol. 7

May-June, 1917

No. 2

Editor: CHARLES M. SNOW

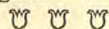
Associate Editors: { W. HOWARD JAMES, M.B., B.S.,
EULALIA RICHARDS, L.R.C.P. & S., Edin.

FOR various important reasons it has been considered necessary by the publishers to return to the original plan of issuing LIFE AND HEALTH bi-monthly instead of quarterly. It has been decided, however, as has been stated in the publishers' notice elsewhere, to retain the "season" feature of the magazine, providing appropriate matter for the various seasons. The six issues which will appear during the year will be named (commencing Jan.-Feb.) the mid-summer number, followed by autumn, winter, mid-winter, spring, and summer. We trust our readers everywhere will endeavour, by recommendation and personal effort, to increase the circulation and usefulness of the magazine to the greatest possible extent.



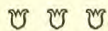
To the city dweller, in ill health, the advice to remove to the country for a time is generally good advice; but if it stops there, it accomplishes little. Country air in a closed house or a closed bedroom is no better than city air in a closed house or a closed bedroom. If you are advised to go to the country for a change of air, then see to it that you change not simply your geographical location but your *method of getting* air. The country

is full of air, and it is very good air. A closed bedroom is full of air also, but it is *very bad air*. No one was ever killed by having plenty of fresh air in his bedroom. You can have plenty of air without sleeping in a direct draught. So if you go to the country for air, get all there is to have both day and night.

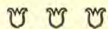


It is not how much food you eat that determines your strength, but how much you assimilate. It is not the quantity of air you take into your lungs that determines how much oxygen you are getting into your system. This is determined by the size of the demand made upon the blood by the system for oxygen. The work done by the muscles determines the extent of that demand. Walking in the country is splendid exercise; and the great muscles of the limbs, back, and chest thus exercised make an insistent demand upon the blood for oxygen. While this exercise is going on, the blood is meeting the system's demand for oxygen by absorbing a much larger amount than usual from the air in the lungs. The blood never absorbs all the oxygen out of the air in the lung cells. There is more always than what the system is using—there is more generally than the

system is needing. When you sit quietly, the system makes small demands. When you exercise violently, the system makes large and insistent demands. When you exercise moderately, the demands are moderate. When there is a large demand and small breathing capacity, necessarily the system gets less oxygen at each inspiration than where the breathing capacity is greater.

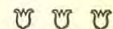


THUS it follows that sound lungs of good capacity are essential to health—just as essential as a sound stomach of sufficient capacity. But an abnormally large pair of lungs are no more necessary to good health than is an abnormally large stomach. In fact, a distended stomach is a source of physical infirmities, and it has long been known that abnormally large lungs do not insure perfect health. Neither should we be content to sit in cramped postures that mechanically restrict our breathing capacity. Let us walk uprightly, both morally and physically, that both soul and body may prosper and be in health.

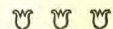


CORSETS are an abomination, and the tighter they are laced, the greater the abomination is. The woman who values her health should not permit herself to cast lingering, longing glances on the corset. It must be definitely abandoned if health would be retained as a life-long companion. It restricts the circulation of the blood both to and from the heart, whereas perfect freedom of circulation in every part of the body is absolutely necessary to health. Most of the women who have had to undergo a serious operation were patrons—and victims—of the corset. If you have a home, and the corset is one of its articles of furniture, it is your imperative duty to inform yourself as to its injurious effects both upon the wearer and the offspring; then discard it, and pass the good word along to others in the same danger.

AS God permits His rain and His sunshine to fall alike upon the just and the unjust, so does He furnish to all who will have it an abundance of fresh air; but He will not compel men to take it. Some will shut themselves up within the airtight walls of their sleeping room lest they should be assassinated by a breath of night air. But the only night air that is really dangerous is that found in a closed room with a human occupant. That kind of night air is dangerous in any part of the world, and the tighter the room is closed, the more dangerous it is. Cover up warmly, wear a cap if your hair is thin, and then let the fresh air have its way with you. You will find it an excellent physician, who makes no charge for his services.

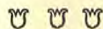


WHO would think of building a steam engine out of wood, lead, glass, and putty? It is equally inconsistent to attempt to build a strong, healthy, vigorous body out of tobacco, alcohol, drugs, vinegar, pepper, mustard, pickles, and diseased meat. And when, on top of that, little attention is given to exercise and ventilation, the death sentence is passed upon the individual so doing, and the execution of the sentence is usually not long delayed. Do not inhale, swallow, or chew such articles as we have mentioned, but instead, eschew them all.



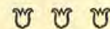
PHYSICIANS do not send their patients to the country that they may admire the scenery, but in the hope that they will get more fresh air by being more in the open; but the poorest open air in the city is better than the indoor air of the country. So if you are sentenced to such a change, make the most of it; be in the open as much as possible, and sleep with your windows open. However, if you do the same thing in the city, you are not at all likely to be ordered into the country by your physician "for a change of air."

ONE has declared that it is a greater disgrace to be in a hospital than in a gaol, for the former shows that we have broken a law of nature, while the latter shows that we have transgressed only a law of man. The author of the above meant well; but such tremendous exaggerations do little good and much harm. True it is that we are far too careless about obeying the laws of nature; but the majority of people who are compelled to avail themselves of the hospital's facilities are utterly ignorant of the laws of nature and have little or no means of finding out what they are. Nature punishes them, nevertheless; but she leaves them to find out as best they may what law or laws they have broken, and are now being punished for. The wisest practitioner sometimes fails to diagnose the cause of some trouble that sends a human being to the hospital, or lays him up at home, or sends him to an early grave. It is the purpose of this journal to help its readers to understand these laws of nature, whose transgression is fraught with such serious consequences, and thus enable them to keep out of the hospital, out of the sick bed, and as long as possible out of the grave.



MORE and more are medical men coming to realise the advantages of the non-flesh diet, and an ever-increasing number of people are adopting the vegetarian regimen. Vegetarianism, in our day, does not stand for a diet purely vegetable, but it includes such foods as eggs, butter, cream, milk, fruit, vegetables, and cereals such as rice, porridge, boiled whole wheat, corn flakes, etc. Some have adopted vegetarianism upon grounds of sentiment purely, others for pathological and physiological reasons; but, whatever the reasons, the system gets the same benefit from the change of diet. Some have feared that they might not be able to maintain strength and bodily vigour upon such a diet as we have outlined. Such fears have been proved groundless in thousands of cases. The Japanese and Indian

runners, whose fame for endurance is world-wide, live principally upon rice—certainly a very restricted diet. The Kongo natives will carry a weight of a hundred pounds on their heads, walking thus a distance of twenty miles a day, and keep it up day after day, while their diet consists of manioc root, corn, and peanuts. Many champions in various athletic lines are strict vegetarians. Many feel that they are absorbing the strength of the ox when they eat his flesh; but the ox absorbed his strength from grass and grains and cold water. We recommend the non-flesh diet as more suited to the real needs of the system, cleaner, more wholesome, and less liable to create diseased conditions in the human system.



WHILE no one can lay down a set of rules to govern all cases in the matter of eating, yet there are some rules that can be observed by all to their advantage. In the first place thorough mastication of every mouthful is a prime requisite to good digestion and perfect assimilation. Not what we swallow, but what we digest and assimilate, nourishes the body. The food should be so thoroughly masticated that it becomes practically a liquid in the mouth. Eat slowly, leisurely, do not bolt the food as some animals do and as the fowls do. They fear that unless they swallow it quickly, they will not have the opportunity of swallowing it at all. Such a contingency among human beings rarely exists. Let us not act as if we had that fear. Generally speaking, it is better not to drink at meals. There are some who get on better with drink at meals than without it; but they are the exception. Do not decide off-hand that you are one of the rare exceptions. Make sure of it before you practise it. Brush the teeth after every meal, and use also an anti-septic mouth wash. This cleanses the teeth and also frees the cavities between the teeth from any bacteria that might cause disease if left to increase and spread. Do not eat too frequently. Give

the stomach a rest for part of the time. The stomach that always has something in it will soon cease to perform the proper functions of a stomach. Two full meals and one light one of fruits and cereals are sufficient for all purposes, and will be found to be better than a larger number, and better than three heavy meals.



THE following paragraph, taken from the *Australasian Pharmaceutical Notes and News*, of March 1, 1917, reveals a fact of far greater importance than its brevity suggests:—

Grocers and hairdressers in some parts of Victoria have started selling penny packets of acetanilide, caffeine, and sacch. alb. [white sugar] for curing headache and neuralgia. These powders are put up by a manufacturing firm whose principal line is a furniture polish.

Acetanilide is a potent drug which has a peculiarly depressing effect upon the heart. Numerous cases of fatal heart failure from the use of this drug in headache powders are reported by the medical journals. Because of its dangerous depressant action, acetanilide is a drug which should be prescribed only by the physician—the patient being under his observation. Surely it is time that the traffic in potent drugs should be, by legislation, confined strictly to registered pharmacists.

Another paragraph from the same number of *Pharmaceutical Notes* is interesting both to the medical profession and to the layman. We quote:—

An exhibit at the February meeting of the Pharmacy Board was a ½-oz. bottle labelled "Marvellous Uric Acid and Rheumatism Cure. Price £1." A medical man brought this quack medicine under the notice of the Board. It is put up in Melbourne. Probably its value is about 1d. At any rate, the doctor would not allow the patient to take the precious stuff.

There is just one redeeming feature about these quack medicines—they are usually *harmless*. But we must also add that they are often as *useless* as they are *harmless*. Unfortunately the persons who are deceived by these rather attrac-

tive advertisements are the ones who can least afford to spend their money for that which is not bread. Many poor folk have denied themselves the necessities of life in order to avail themselves of one of these "marvellous" cures when they might far better have spent their money for wholesome food, warm clothing, and other needed comforts. It would seem that the medical men and pharmacists together should be able to induce our government to end this sort of fraud.

E. S. R.

Drink and Suicide

WE clip the following interesting item from the *Australasian Pharmaceutical Notes and News*:—

At a conference held in England on the control of the liquor supply on the North Coast of England, it was stated recently that the convictions for drunkenness had decreased nearly fifty per cent, as compared with the pre-order period. The decrease of cases of suicide and of convictions for assault showed a decrease of thirty per cent in each case. It is a remarkable fact, however, that the decreases seem to be confined to men, and if anything, drunkenness, with its attendant evils, is increasing among women.

The cause of suicide from drink is said to arise from the depression following excessive stimulation, and the disturbed state of the mind following excessive drinking extending over several days. Often this state is influenced considerably by the weather, and, although dull, depressing weather is said to influence other forms of mental depression, the suicides from mental depression caused by drink frequently are met with in the warmer period of the year, and not infrequently take place in hot weather. The mental disturbance due to alcoholism arising from the excessive use of spirits is more marked in the summer than in the winter.

And the paradox of paradoxes is that this suicide-maker, this poverty-breeder, this devastator of homes and disrupter of families, this insanity-breeder, this body-and-soul-destroyer, this friend and helper of the enemy, should be pampered and fondled and protected while legitimate industries are cramped or extinguished that the energies expended therein may be turned to the prosecution of the war. When will the people awake and join in a win-the-war campaign against an enemy more menacing and more destructive than any foe the nation has ever met in military conflict?

Consumption (Tuberculosis)

W. HOWARD JAMES, M.B., B.S.

TUBERCULOSIS is now recognised as an infectious disease affecting all parts of the body and the lungs in particular. It is characterised by the disposition in the tissues of nodular bodies and tubercles which degenerate into cheesy masses (caseate) or produce disease of bone (necrosis) or ulceration and abscesses. When these heal, as they often do, they form little hardened masses sometimes of

yan, "The Captain of the Men of Death." Due to increased knowledge of the disease and improved hygienic conditions, the death rate in England and elsewhere has declined about fifty per cent during the past forty years. From 1871-1880 the death rate per 100,000 of the population was 210, from 1901-1910 the rate per 100,000 was only 117.

The decrease in the death rate is due



THE SOURCE OF MILK SUPPLY MUST BE WITHOUT SUSPICION

a bony nature. In the lungs large collections of tubercles form and break down into abscesses, leaving cavities.

The disease is not confined to the human being. It is not uncommon in birds, and is frequently developed in fowls. In the domestic animals it is a common disease, especially in cattle. In sheep, goats, and horses the disease is rare. The milk of the goat is always free from the specific germ. Cats and dogs are not susceptible to the disease. It is developed in animals that are confined in ill-ventilated and badly-drained outhouses. It is not developed in animals in the wild and free condition.

Tuberculosis is responsible for about one-seventh of all deaths. It has truly earned the name of the "White Plague," or the epithet bestowed upon it by Bun-

to (1) improved social condition of the people, better housing, better food, better habits. (2) Education of the people. The habit of spitting in public has been checked; the phlegm of infected persons is caught in spittoons or old cloths, and destroyed. Milk is sterilised, and tubercular flesh is not exposed for sale to same extent as formerly. (3) Sanatoria have been erected for the care of consumptives. Those that are incurable are not allowed to mingle with the hopeful cases. (4) Cases are seen and diagnosed at earlier stages, and a much greater proportion of the cases are actually cured.

The Causation (Etiology)

Undoubtedly the direct cause of consumption is a specific germ, the bacillus tuberculosis, a rod-shaped microscopic

organism slightly bent or curved, of a length of three to four millimetres (a millimetre is equal to .03937 inch). They are chiefly recognised by the characteristic way in which they stain with aniline dyes and their mode of growth in cultures. They vary somewhat in birds, cattle, and man. Koch demonstrated that the bovine bacilli and the human were quite distinct, but the recent report of the English commission confirms the original view that the organism in cattle is capable of producing the disease in man. The organism is found in the sputum, glands, and blood of those suffering from tuberculosis; its virulency, however, varies greatly. In very active cases of consumption it is very virulent, but in the more chronic cases its infective power is small.

The chief sources of the infectious microbe are the expectoration of persons with advanced disease of the lungs and the milk of tuberculous cows. Osler writes: "From a patient in my wards at the John Hopkins Hospital, with moderately advanced disease, Nuttall estimated that from one and one-half to four and one-third billions of bacilli were thrown off each twenty-four hours." When the sputum is dried, the bacilli are scattered broadcast, and consequently everyone is more or less constantly exposed to infection. The country mountainous districts and the air at sea are practically free from the infective agents, but they are found in the dust of the streets of all cities. They readily contaminate food, and especially milk. The hands of tuberculous subjects are almost always contaminated. In consumptive sanatoria very great care is taken in the disposal of the sputum and the care of the person of the consumptive, with the result that the dust (as shown by experiments at Saranac) may be free from bacilli. This fact shows what an immense amount of good can be done by the proper education of the consumptive in regard to the collection and destruction of his expectorations. When the consumptive carefully collects all his sputum in a flask contain-

ing some disinfectant, as carbolic acid, and is careful in regard to the cleansing of his hands and the burning of all rags that are used for cleansing the mouth after expectoration, he may live in his home without endangering the health of any of the other occupants. It is the dried sputum that is so difficult to guard against. Parkes and Krumwiede have shown by careful experiments that bovine tuberculosis is practically negligible in adults, but that in young children it causes from six to ten per cent of the deaths from tuberculosis.

The Soil

A seed develops and flourishes according to the nature of the soil. A seed in dry, barren soil will never germinate or develop into a plant; similarly the bacilli tuberculosis, which is practically a seed of vegetable nature, will not become active and multiply unless it finds a soil in which it can develop. The seed lodges in the nose, throat, and air passages, and in most cases fortunately perishes. The healthy secretions of an active, healthy person will destroy practically all disease germs. The inhaling of an atmosphere laden with germs of course produces much more risk than when the germs are few in number. It may be impossible to keep the air of a bedroom of a phthisical patient free from the bacilli, but with free ventilation and sunlight the germs are so few in number that the danger of infection is almost nil to a person in moderate health. Anything that lowers the general health will predispose to the development of the phthisical germs. Heredity plays a very important part; the actual disease is not transmitted from parent to child, but the predisposition may be so acute that the slightest exposure to the germ will prove fatal. The child of the consumptive parent or parents should take more than ordinary care. He needs fresh air night and day, plenty of outdoor living, good food, and comfortable clothing. The clothing should be light and warm, but not sufficient to cause sweating.

Treatment

A continual cough, even though it be slight, and especially when it is associated with loss of weight, should always be regarded with suspicion. In these cases frequent medical examinations are necessary, for the physical signs are not apparent for some time after the system becomes infected. A history of consumption in the family, a chronic cough, and loss of weight should be taken as indicative of consumption and treated accordingly. When a case is taken early, a cure will most probably result. Patients with a chronic cough should be very careful about the disposal of all expectoration. The sputum should be examined microscopically. One examination may not reveal the infective agent, consequently three or four examinations are often necessary. Where there is any suspicion of a case, all expectoration should be received in a flask containing carbolic acid (20 per cent) or other disinfectant, and then buried or burnt. Old rags are better for wiping the nose and mouth than handkerchiefs, as they can be burnt before drying. If handkerchiefs are used, they should be soaked in a five per cent solution of carbolic acid, or boiled before they have a chance to dry. Boiling water will destroy all infection. Phthisical patients should not handle food intended for use of others.

Open-Air Treatment

Open-air treatment is of the greatest importance; all phthisical patients should live out of doors as much as possible. Sleeping out of doors is excellent where the patient can obtain a sound, refreshing sleep without exposure to rain and rough weather. A verandah protected from the cold winds forms an excellent site for sleeping. If, however, wind and other disturbances continue to disturb the sleep, the patient is better in a well-lighted and well-ventilated bedroom. The bedroom should have as many windows as possible so as to admit sunlight, which is a sure germ destroyer. All the windows, except on rough nights, should be fully

opened from the bottom, if it can be arranged to keep the draught off the bed. The room should contain a fireplace, which is an excellent ventilator. The room should be well thrown open to sunlight and the fullest ventilation during non-sleeping hours. The floors should be covered with linoleum and not a carpet,



SLEEPING ON A VERANDAH IS EXCELLENT

which retains the dust and infectious particles. Two or three mats can be placed about the room for standing on. The walls of the room should be plastered, or covered with paper that can be washed with a disinfectant occasionally. A really well-fitted bedroom is often more advantageous than sleeping out of doors.

The Food

Plenty of good, nourishing food is an absolute necessity, for phthisical patients quickly lose weight, which means they are obtaining energy and heat from the consumption of their own tissues. The food must contain a large proportion of albumens and fats, but at the same time must be served in easily-digested forms. Fats, such as olive oil, good fresh butter

and cream, are very beneficial, but must not be pushed to the extent of causing derangement of the digestive organs. Neither fats nor albumens should be fried, baked, or cooked at a high temperature. All food should be cooked at or below boiling point; thus prepared it is more nutritious and more easily digested. The appetite, however, must be considered, for one digests better the foods he can enjoy; repugnance to food certainly interferes with its digestion. Eggs, milk, creamed farinaceous dishes, and custards can all be cooked at a temperature below boiling point. Milk and eggs are better uncooked; in using the former without scalding the source must be without any suspicion; tuberculous cows and unhygienic milking are a fruitful source of disease. There are no better foods for the phthisical than milk, eggs, oatmeal, malted nuts, cream, good sterilised butter, and unfermented wine; eggs can be well given in grape juice.

Other Treatments

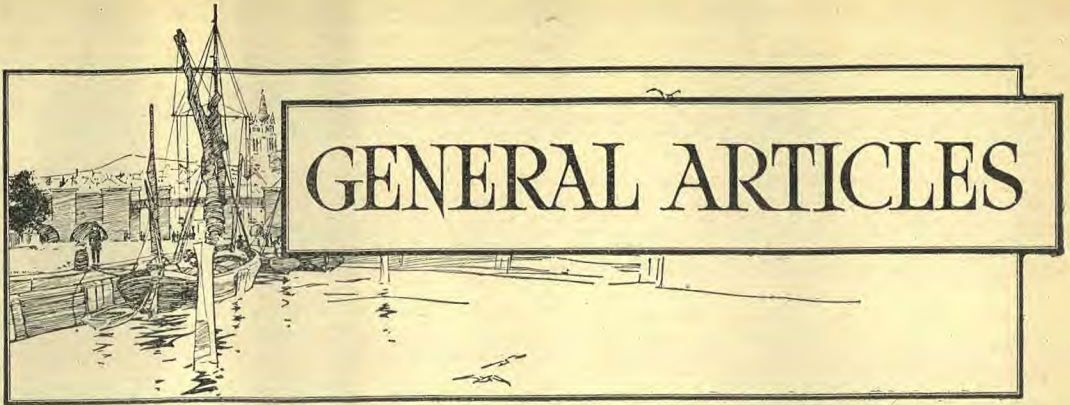
The daily sponging of the whole body with cold water is an excellent tonic, and prevents to a large extent the "catching"

of colds. A fair amount of friction with loofah or other flesh gloves is necessary in order to ensure a good reaction. Only one portion of the body should be treated at a time; the treatment can begin with the arms and finish with the lower extremities. After the "cold mitten friction," olive or cotton seed oil rubbed into the skin will add to the benefit derived from the cold treatment. The cold treatment should not be commenced till the body is well warmed; just before rising is a good time. Where the cold is not followed by a "glow," a previous hot sponge should be given. Without the after glow—the reaction—sponging is harmful; in these cases the oil rub is sufficient.

Where the afternoon temperature rises above 101° F., or the morning temperature above $99\frac{1}{2}^{\circ}$ F., the patient should be kept in bed. Tepid sponging will reduce the phthisical temperature better than the "cold mitten friction." Drug treatments are certainly unsatisfactory; drugs are occasionally necessary for severe cough, hæmorrhage, or diarrhœa, but they should only be administered under the supervision of a medical man.



SEVEN BARQUES BEGINNING THE VOYAGE OF LIFE



GENERAL ARTICLES

The Amount of Food Required in Health

W HOWARD JAMES, M.B., B.S.

NOT more than one-sixth of our food is converted into energy in our tissues, five-sixths being used up for the production of heat. The production of heat and energy varies considerably in individuals; the hard-working man uses up more energy and produces much more heat than the man of sedentary occupation; the inhabitant of the tropics works less and loses heat less rapidly than the one who lives in the temperate or polar regions. A tall, spare man loses more heat and, as a rule, expends more energy than a fat individual of the same weight. The more clothing worn the less heat is lost and, as a rule, the less energy is expended. The child relatively loses much more heat and expends more energy than the adult. Some undoubtedly digest and assimilate a larger proportion of their food than others. All such particulars must be taken into account in estimating the amount of food required by the individual.

We take food for the energy we can get out of it, and by energy we mean heat, muscular power, mental activity, glandular action, and the work of every tissue of the being. Food serves a double purpose: the development and maintenance of the body, and the production of energy for all the body and mental functions. Energy is the essence of our food; the matter—the elements—is simply

the receptacle in which it is stored.† The elements we incorporate into our system, and which build up the various tissues of our body, form the machinery for the demonstration of our soul being, the substratum in which the ego, the individuality, is moulded, and through which its varied attributes are manifested and maintained.

The Cell

Every part of the body, whether it be the hair of our head, the nails of our fingers and toes, or the all-important and mysterious thinking cells of the brain, is composed of protoplasmic cells which vary in size and shape according to the functions they have to perform. A knowledge of the life of the cell, whether it be the spindle-shape cell of the muscle, the oblong cell of the peptic gland, or the branching cell of the nervous system, will give us the key to the life of the whole being. Every cell may be viewed as Nature's machine for the production and maintenance of energy. Every cell has its fuel and air regularly and constantly brought to it by the blood, which bathes its every atom and has its "ashes" removed by the same life-giving current.

The cell thus supplied with nourishment is analogous to the steam engine laden with its fuel. The oxygen taken into the system through the lungs, the food digested and absorbed from the

alimentary canal through the circulation of the blood, permeates every cell, keeps up the burning or oxidising process, and the result is a constant liberation of heat and energy. This is life! Life is the energy of nature transformed by and exhibited in the living organic cell; it is the combination of the energies of the cells of every tissue that forms the life of the individual.

In the steam engine, the machine is constructed of material differing from the food it burns, but in the cell the machine and the fuel may be composed of the same elements.

The Three Classes of Food

The proteids (nitrogenous substances) will serve either for building material for the cell or for its fuel; the carbohydrates and fats serve mainly for fuel. The non-nitrogenous and purely fuel portions of our food contain the three elements, carbon, hydrogen, and oxygen only. The carbohydrates (sugars and starches) contain the elements hydrogen and oxygen in exact proportion as found in water, two atoms of the former to one of the latter; in fats there is a much greater proportion of hydrogen. Thus the fats are more heat-producing than the sugars and starches, for they possess a greater proportion of the easily-oxidised element, hydrogen.

The Calorie

Before we can intelligently estimate the amount of food required daily by the individual, and deal with the relative value of proteids, carbohydrates, and fats as foods, we must understand the standard unit of energy. All the energy of our food can be transformed into heat, and that heat can be measured. The unit of heat (the calorie) generally adopted is the amount required to raise the temperature of one kilogramme of water one degree centigrade (1°C), or expressed in English measures, the amount of heat required to raise the temperature of one pound of water 4°F .

Food burnt up outside the body produces the exact amount of heat and

energy as when oxidised in the body, *i.e.*, if digested and fully assimilated. The calorimeter, the special instrument devised for measuring the energy in our food, shows that—

1 gramme of proteid	produces	4.1 calories
1 .. carbohydrate	..	4.1 ..
1 .. fat	..	9.3 ..

A gramme is equal to about $15\frac{1}{2}$ grains. A shilling weighs about $5\frac{1}{2}$ grammes. The white of an egg contains about 4 grammes of proteid, a small lump of sugar about the same weight of carbohydrates, and a thimbleful of olive oil a similar amount of fat.

The method of applying the caloric standard to a food is very simple. The percentage of proteid and carbohydrate which it contains are multiplied by 4.1, and the percentage of fat by 9.3. These added together will give the total calories yielded by 100 parts of the food. Let us take for example 100 grammes (3 ounces) of milk with 3 per cent proteid, 4 per cent fat, and 6 per cent of carbohydrate:—

Proteid	...	$3 \times 4.1 = 12.3 \text{ C}$
Fat	...	$4 \times 9.3 = 37.2 \text{ C}$
Carbohydrate	...	$6 \times 4.1 = 24.6 \text{ C}$

Total value of 100 grammes of milk = 74.1 calories

With this data and the accurate weighing of the food taken, we can estimate the value of the daily menu.

Standard Diets

Atwater and others have made a calorific examination of the ordinary diets actually consumed by individuals of different countries and different social rank. We will give but a few of their results. See table on opposite page.

The London sewing girl subsists on a dietary that produces only 1,820 calories. The total weight of food taken in the day would be about $14\frac{1}{2}$ oz. of dry food, or, when an allowance is made for the percentage of water, about 29 oz. The brick-maker, on the other hand, takes a dietary which totals 1,243 grammes of dry food, and produces 6,464 calories—just about three times the quantity of the sewing girl. Taking a general average, it has

been calculated that a man weighing eleven stone and doing an ordinary amount of work consumes about 23 oz. of dry food daily, or nearly one ounce per hour, or when allowance is made for water, which all food contains, about 3 lbs. Fruit and green vegetables contain but little nourishment, so that their weight does not enter into the above calculations. The value of this average dietary in calories would range from 2,800 C. to 3,500 C.

tenden, we have shown in a previous article on "The Proteid Element in Food," demonstrates that about two ounces of proteid daily are ample for a man of eleven stone doing ordinary work. As flesh foods contain about 20 per cent of nitrogenous matter, the amount required daily to bring up the proteid element to 2 oz. would be about 10 oz. of beef.

When, however, we consider that bread contains from 8 to 10 per cent nitrogenous

ACTUAL DIETARIES

Classes	Nutritive Constituents				Potential Energy
	Proteid	Fats	Carbo-Hydrates	Total	
	Grammes	Grammes	Grammes	Grammes	
Sewing girl, London Wages 3/9 per week	53	33	316	402	1,820
Students, Japan	97	16	438	551	2,343
Fully-fed tailors, England	131	39	525	695	3,053
Blacksmiths, England	176	71	667	914	4,117
German soldier Peace footing	114	39	480	633	2,798
German soldier War footing	134	58	489	681	3,093
Average of 21 dietary studies amongst the labouring classes in Dublin	98.5	92.7	453.6	644.8	3,117
Brickmakers, Middletown, Conn., U.S.A.	222	263	758	1,243	6,464

The Amount of Proteid Required

An excess of fat in the food produces symptoms of indigestion and biliousness; the appetite as a rule will not allow a great excess of carbohydrates on account of their bulk; but the evil effects of an excess of proteids may not be recognised till the onset of serious disease. It is important, therefore, to take special care in reference to the proteid element in our food. Our list of actual dietaries gives a varying amount of proteid taken, ranging from 53 grammes (nearly 2 oz.) to 222 grms. (nearly 8 oz.), and an average of all dietaries according to the investigations of Voit, Atwater, Rubner, and others, gives 100-120 grammes ($3\frac{1}{2}$ - $4\frac{1}{2}$ oz.). Chit-

or proteid matter, potatoes about 2, rice 7, milk 3, oatmeal 14 or 15, 10 oz. of meat during the day would give us an excess of nitrogenous matter.

The amount of proteid necessary in health can readily be obtained without the use of flesh foods. For instance, we would obtain over 2 oz. in the following combinations:—

1 lb. bread	(10 % proteid)	=	1.6 oz.
1 pint milk	($3\frac{1}{2}$ % ..)	=	0.7 oz.
4 oz. potatoes	(2 % ..)	=	0.08 oz.
2 oz. rice	(7 % ..)	=	0.14 oz.
2 oz. oatmeal	(14 % ..)	=	0.28 oz.
Total	2.8 oz.

One-fifth of proteid in bread, one-fourteenth in milk, nearly all the proteids in

potatoes, and a small percentage in rice and oatmeal are unabsorbed. Allowing for this loss the above amounts of food would contain fully 2 oz. of proteid.

The following combinations would contain the requisite amount of proteids:—

2 oz. almond nuts	(24 % proteid)	=	0.48 oz.
4 oz. raisins	(2.6 % ")	=	0.1 oz.
$\frac{3}{4}$ lb. bread	(10 % ")	=	1.2 oz.
4 oz. figs	(4.3 % ")	=	0.17 oz.
$\frac{1}{2}$ pint milk	(3.5 % ")	=	0.35 oz.
Total	...		2.3 oz.
2 eggs	(14 % proteid)	=	0.56 oz.
$\frac{3}{4}$ lb. bread	(8-10 % ")	=	1.2 oz.
1 oz. lentils	(25 % ")	=	0.25 oz.
1 oz. rice	(7 % ")	=	0.07 oz.
$\frac{1}{2}$ pint milk		=	0.32 oz.
Total	...		2.4 oz.

We give a list of foods, other than flesh foods, in common use and the amount of proteids they contain:—

	Proteid		Proteid
Macaroni	10.98 %	Nuts	15-20 %
Vermicelli	11.74 %	Figs	4.3 %
Semolina	13.5 %	Raisins	2.6 %
Oatmeal	14.2 %	Eggs	14.8 %
Rolled oats	15.4 %	Milk	3-3 $\frac{1}{2}$ %
Bread (white)	8-10 %	Dried peas	21 %
Lentils	23 %	Dried beans	25-32 %
Wheatmeal	12.9 %		

From this list it can be seen how readily 2 oz., or even 4 oz. or more, of proteid can be obtained without the use of any flesh foods whatever. Fat flesh foods contain a much smaller percentage of proteids than lean meats, as may be seen in the following table:—

	Proteid.	Fat.
Beef (medium fat)	20 per cent	1.5 per cent
Mutton (lean)	18 "	5.7 "
Mutton (medium fat)	14.5 "	19.5 "
Mutton (very fat)	10.2 "	43.2 "
Lamb (medium fat)	18.5 "	16.5 "
Pork (medium fat)	12.3 "	26.2 "
Pork (very fat)	9.7 "	45.5 "
Bacon	8.1 "	65.2 "
Fowl	23.3 "	3.1 "
Goose	15.9 "	46.5 "

Fat

The amount of fat consumed daily is also a very important item, as excess produces indigestion, biliousness, and often diarrhœa. In cold weather and cold regions much more fat can be assimilated than in hot weather and a hot climate. In

most persons anything above a daily 3 $\frac{1}{2}$ oz. of fat in winter and less in summer would be apt to produce disordered digestion. Authorities give the amount of fat necessary in the twenty-four hours from about 4 $\frac{1}{2}$ oz. to 1 $\frac{1}{2}$ oz. Most place the amount below 2 oz. When we remember that milk, eggs, and all cereals contain fat we will realise that but a very small amount of free fat need be taken with the meals. One ounce of butter with the usual menu would certainly bring the amount up to the standard. Children, however, require more fat (relatively) than adults.

Carbohydrates

We have seen that about 23 oz. of food (free from water) are required to make up the 2,800 to 3,000 calories required by a man of 11 stone doing a moderate amount of work. If three ounces of this be in the shape of proteid and two ounces in fat there will remain 18 oz. of carbohydrates to complete the standard amount. Taking the average percentage of water in our uncooked foods, omitting fruit and vegetables, we would thus require about 45 oz. or nearly 3 lbs. of food daily. Flesh foods contain about 75 per cent of water, and cereals and their products from 10 to 14 per cent. We thus see that the principal part of our food should consist of carbohydrates as contained in bread, oatmeal, and the farinaceous foods. There is less danger in taking excess of these foods than of either proteids or fats. When taken in excess they would give discomfort from their bulk, and when assimilated would be stored up as fat in and around the tissues.

E. H. DEWEY, M.D., in "The True Science of Living," points out that "it is possible, by introducing more food than can be readily digested, to overpower digestion so that nothing is digested and absorbed, and starvation results." It is not the amount of food taken that nourishes and produces energy, but the amount digested and assimilated.

Dr. Haig on Amount of Proteids Necessary for Daily Consumption

W. HOWARD JAMES, M.B., B.S.

DR. HAIG by experiments on himself and others has given a very simple rule by which a reliable estimate may be made of the amount of albumen required by the individual for twenty-four hours. A man doing a moderate amount of work excretes three and a half grains of urea daily for every pound weight of his body. Albumens or proteids contain only one-third the amount of nitrogen contained in urea. By multiplying the amount of urea excreted daily by three, we can thus find the amount of proteids necessary to maintain nitrogenous equilibrium.

Example: "A man weighs 160 lbs., but his active weight twenty years ago before he became stout was only 130 lbs., and he is now sedentary; therefore $(130 \times 3 \times 3) = 1,170$; and 1,170 grains of albumen per day are necessary for his proper nutrition and force production. But if such a man leads, or wishes to lead, a decidedly active life, multiply $130 \times 3\frac{1}{2} \times 3$, and we get 1,365, the number of grains of albumen required each day"; approximately, 1,365 grains equals $2\frac{5}{8}$ oz. This estimate is a little higher than that of Chittenden and less than that of other authorities.

"Old people," says Dr. Haig, "produce much less urea, say, about two grains per pound per day; thus an old man might only require $130 \times 2 \times 3$, or 780 grains of albumen, and would also, of course, produce less force in proportion; old people who are strong and active, however, still want 3 to 3.5 grains per pound per day.

"Children, on the other hand, need much more, and may produce 6-8 and even 10 grains of urea per pound; therefore a child of 35 pounds may require

$35 \times 10 \times 3$ which is equal to 1,050 grains of albumen daily."

An interesting instance of this came under notice in the case of a boy, aged ten, admitted into the Royal Hospital for children and women, suffering from albuminuria, and having a normal temperature.

He was put on a diet of milk only, and, by accident, he was given $2\frac{1}{4}$ pints, this being an insufficient quantity of albumens.

On this he lost weight to the extent of 7 lbs. in eleven days, his weight on admission being 53 lbs. Now the albumen in $2\frac{1}{4}$ pints of milk amounts to 590 grains. And the albumen in 10 oz. of his own tissues containing, say, 18 per cent amounts to 786 grains. Total, 1,376 grains. So that we get 1,376 grains of albumen as the quantity this boy required each day, and this divided by three gives 458 grains of urea, or 8.6 grains per lb. per day on his original weight of 53 lbs.

"This is very interesting, as Nature made up the deficit and told us how much albumen and urea per pound this boy required. I have often found children of this age excreting urea to about the quantity thus calculated, and younger children still more per pound.

"As soon as the mistake was discovered the milk was increased, the loss of weight ceased, and the amount lost was slowly regained.

"Precisely the same results have often been produced in adults, who for one reason or another have starved themselves, and here again the urea excreted would be found to correspond to the albumens swallowed and to the tissues absorbed."—"Diet and Food in Relation to Strength and Power of Endurance," Haig, pages 7, 8.

The Proper Care of the Hair

EULALIA S. RICHARDS, L.R.C.P. & S., Edin.

THE hair grows from the skin somewhat as plants do from the soil. Each hair springs from a single follicle or root which is nourished by tiny blood-vessels passing through the deeper structures of the skin. In connection with the hair roots there are also small glands whose duty it is to secrete an oily substance to

—none of these essentials must be neglected. Then, too, some attention must be given to the hair itself. Those who are so fortunate as to possess good hair, are frequently apt to be negligent of it, one charm after another departing, until what was once their "crown of glory" becomes only a source of annoyance and anxiety.

In order to keep the hair beautiful, the circulation of the scalp must be rendered active by the daily use of comb and brush. It is also an excellent practice occasionally to dip the fingers into cold salt water and rub the scalp vigorously until it is all aglow with a healthy flow of blood. This one measure if faithfully employed will make hair-tonics unnecessary. Cleanliness of the scalp must also be maintained. Persons with short hair will experience little



THE DRY SHAMPOO OR SCALP MASSAGE

difficulty in doing this, but not so those whose hair is long and heavy. It is impossible to say just how frequently a woman's hair should be washed; often enough to keep it clean is the only rule that can be established. One shampoo a month may be sufficient in some localities, but in dusty, smoky cities once a week or once a fortnight is none too often. Whenever the hair becomes oily so that it clings together, one may be quite safe in resorting to soap and water, knowing that oily hair always catches and retains whatever dust may be flying in the air.

General Health

As the gardener would not expect fine plants to grow from a poor soil, so we must not expect beautiful hair to grow from an unhealthy skin. Again, since a healthy skin is dependent upon a healthy body, the person who would have fine hair must first of all give attention to the general health. Fresh air, sunshine, nourishing food, abstinence from stimulants and narcotics, proper dress, exercise, sufficient sleep, personal cleanliness

render the hair glossy and to keep the skin soft and pliable.

In the ordinary cleansing of the hair and scalp, it is best not to use borax, ammonia, or other similar substances frequently advised. A good soap and plenty of water are all that one requires. Always rinse the hair thoroughly so that all of the soap is removed. Have two or more dry linen towels, and dry the hair as well as possible with these. Complete the process in the sunshine or before an open fire. Shaking the hair occasionally hastens the drying. The busy woman who feels impatient of delay, may improve the little time of waiting by reading a good book, writing letters, or even darning stockings if necessary. No attempt should be made to comb or brush out tangles until the hair is dry, as the effort only breaks the hair and makes the tangles more obstinate.

Falling Hair and Baldness

Dandruff, though such a common disorder, should never be neglected, for if unconquered, it is certain in the course of time to cause falling of the hair or even permanent baldness. Dandruff is now recognised as a parasitic disease, the germ thriving upon an unhealthy scalp. As the disorder progresses, the nutrition of the hair roots is interfered with. The hairs become harsh and dry, and if the disease is not arrested, they subsequently die and are shed. The treatment of dandruff must be both general and local. Careful attention must be given to the bodily health. The patient is usually a victim to some digestive disorder, in which case every effort should be made to improve the general nutrition, and that

of the skin in particular. As a tonic for the scalp, nothing is better than frequent cold salt-water frictions, previously mentioned in this article. Since the disease is a parasitic one, a disinfectant lotion of some kind should be used upon the scalp.

A Most Effective Remedy

is crude petroleum in alcohol (one teaspoonful to the ounce). Use sufficient to thoroughly wet the scalp, rubbing it well into the roots of the hair. A soap wash



DRYING THE HAIR AFTER WASHING

may follow, as the lotion has rather a disagreeable odour. This treatment should be employed twice a week until the condition is much better. After two or three applications there is often marked improvement. In order to insure a permanent cure the treatment should be continued, once a week, for some little time after the disease has apparently disappeared.

Many persons fail because they discontinue treatment as soon as the unpleasant symptoms disappear.

Resorcin in alcohol is another excellent remedy for dandruff, which may be used in place of petroleum. Fifteen to twenty grains of resorcin to the ounce of alcohol

is the correct strength. A few drops of olive or castor oil may with advantage be added to the solution. Two or three times a week, after washing the hair, rub the lotion thoroughly into the scalp.

It seems almost needless to say that heavy, non-ventilated hats are not conducive to a healthy condition of the scalp, and should not be worn.

Hair dyes or so-called hair restorers or preservatives should under no circumstances be used by those who really desire beautiful hair. These preparations frequently contain substances which are very injurious not only to the hair itself but also to the scalp. In some cases constitutional symptoms have followed the use of poisonous hair-dyes.

Neuralgia

G. H. HEALD, M.D.

THE meaning of neuralgia is nerve pain, and that is about all there is to it. In neuritis, there is inflammation of the nerve—something to show for it; but in neuralgia, the only thing that shows is the pain, and that usually makes up for the lack of other evidence of the disease.

Neuralgia has many causes, among which, perhaps, may be included, hereditary tendency; for it is more apt to occur in those who have an unstable nervous system. Sometimes we hear of "spontaneous" neuralgia, but that is merely a name used to cloak our ignorance of causation. Undoubtedly, when we know the human body better, all neuralgia will prove to have a definite cause. Among the prominent causes of neuralgia is the toxic. Some poison is coursing through the blood-vessels, and makes itself manifest in certain nerves of pain. Thus, neuralgia often accompanies gout, rheumatism, and diabetes—diseases characterised by a changed condition of the circulating fluid. It is also present in alcoholic, lead, and arsenical poisoning. In this case the seat of the pain seems to be the *nervi nervorum*—the minute nerves which give sensation to the sheaths of the nerve-trunks. Neuralgia may also be reflex; that is, a secondary consequence of a disturbance elsewhere. For instance, a bad tooth, or eye-strain, or nasal trouble may be the exciting cause. Again, it may be caused by pressure on the nerve,

as by the growth of a tumour; or the formation of scar tissue in an old wound may encroach on a nerve-trunk; or it may be the result of "nerve starvation," if anyone knows what that means; and finally, there is what is known as "reminiscent," or "hallucinatory" neuralgia, which means that once the person has had a true neuralgia, and that now the imagination pictures up a counterfeit so realistic that it passes for the genuine article with the patient. This form of neuralgia is very apt to afflict one addicted to morphine or some similar drug.

The disorder most likely to be mistaken for neuralgia is neuritis; but a consideration of the following differences will distinguish them: in neuritis, the pain is continuous; in neuralgia, it is paroxysmal. In neuritis the nerve-trunk is sensitive to pressure; in neuralgia, the sensitiveness is absent, or is confined to the points where the nerve-trunk comes to the surface. There may be swelling of the nerve-trunk in neuritis, but not in neuralgia. Neuritis is often followed by paralysis, wasting, or loss of sensation of the part, which is not the case in neuralgia. The course of neuritis is usually acute; of neuralgia is usually chronic.

Neuralgia may run a comparatively short course, and depart forever, or it may come and go for years. In some cases, the intervals between attacks are very brief. The prospects for cure are

brightest in the young and strong, in whom the onset is recent.

As a result of long-continued neuralgia, or rather following it, there may be digestive disorders, impaired nutrition, and a weakening of the mental and moral powers. It is possible that these results follow because of the unpleasant mental condition that must almost necessarily accompany long-continued and exasperating pain, from which there seems to be no permanent relief.

In the treatment of neuralgia, it is important to attend to the general health, for the attacks are more likely to occur when one is in a run-down condition. For this reason, everything in the daily life that may have a depressing effect on the general health must be eliminated. In the matter of diet, it is important to avoid excessive eating, and anything that tends to indigestion. Especially is it necessary to avoid meats, alcohol, and spices. On the other hand, it is not to be forgotten that in some cases, neuralgia has come when one has suddenly given up the use of meat and adopted vegetarianism. A sudden change of this kind, even from a poorer to a better dietary, is not always wise, because the system may not be prepared to take care of the unaccustomed foods. Again, in some cases, neuralgia has been cured by a forced or fattening diet, indicating that in these cases, at least, the neuralgia was due, not to overfeeding, but to tissue starvation. In any case, one should avoid a one-sided diet. Be sure that the dietary contains a sufficient amount of proteids, fats, and carbohydrates, and that these are in a form that the digestive organs can manage. Drink an abundance of pure water.

It is important that there be a regular action of the bowels; and this should be secured by a proper attention to diet, and exercise, and not by the use of drugs, or even of the enema, except temporarily as an emergency resort. The sedentary worker should obtain an abundance of outdoor exercise, but on the other hand, the housewife who has slaved herself into ill-

health needs rest more than anything else. Sometimes it seems impossible to obtain sufficient rest, but perhaps judicious planning will secure it. An hour's rest, right out flat on the couch or sofa, will do one much more good than a longer rest in a chair. It should not be a season of visiting, or of planning for more work, but of rest, and of sleep, if possible.

The old hackneyed advice, "Remove the cause," is never more appropriate than in the treatment of neuralgia. Neuralgia has always a cause, perhaps several of them combined, but usually there is one cause that above all others must be removed before the trouble ceases. If it is due to eye-strain, or to toothache, or to catarrhal difficulty, it is foolish to attempt to cure it without removing the cause. If there is an old scar causing the trouble, it will be necessary to remove it by surgical means. In neuralgia due to malarial poison, anti-malarial treatment is necessary, with possibly the use of "some cinchona preparation."

In the matter of prevention, it is important to remember hydrotherapy, especially the tonic treatments, as cold sprays, cold-mitten friction, the Scotch douche, etc. These are best administered in a well-conducted sanitarium. As a matter of temporary relief, the local application of the Scotch douche or alternate hot and cold sponging are very efficient. Electricity works well as a palliative. This may be given in the form of positive galvanism, or static breeze, or the faradic current. The last will increase the pain for a time, but if it is persisted in, it will gradually numb the part. It is often well to allow the experience of the patient to decide as to the palliative treatment to be employed.

A change of climate is sometimes recommended for neuralgia, and in some cases it seems to be beneficial, but oftener it is not, and is simply a will-of-the-wisp, consuming the means of the patient in a wild-goose chase.



The HOUSEKEEPER

Food For Winter Months

EULALIA S. RICHARDS, L.R.C.P. & S., EDIN.

THAT one's food should vary with the seasons is a fact which is ignored by many housewives. This is doubtless due to thoughtlessness in some cases, and to ignorance of food values in many others.

The average housewife senses fully her obligation to provide her family with three meals a day, but her thought does not reach beyond the prompt and regular serving of "something to eat" which is reasonably tasty and attractive.

It is not sufficient that we provide our families with palatable food, though this is a matter of great importance. We must also make sure of choosing food suitable to the individual needs of each consumer.

It is obviously unreasonable that a two-year-old should eat the same sort of food as his father, or that a brain-worker should fare the same as a man who toils at strenuous, out-of-door work.

Is it not equally unreasonable that we dine the same in winter and summer? Surely, ignorance of food values accounts for this common error in eating.

Why is it that so many housewives are frightened of "food elements" and shy at the mere mention of "proteid food stuffs," "carbohydrates," and such like?

It is only a simple matter after all—the necessary understanding of the various elements which constitute our daily food. One needs only to bear in mind a few simple facts, quite ignoring all worrisome figures and percentages.

A Simple Classification of Food Elements

1. Flesh-forming foods called *proteids*.
2. Heat and energy-producing foods called *carbohydrates*. This class includes the starches, sugars, and fats.
3. Bone-building food elements called *mineral salts*. These last occur in all fruits, cereals, vegetables, and animal foods, and will not be further considered here. It will be well for us, however, to assign the most common food materials to their proper class as regards proteids and carbohydrates.

Foods which are chiefly proteid: Eggs, nuts, nut meats, cheese, and lean meats.

Foods which are chiefly carbohydrate: Rice, sago, tapioca, cornflour, potatoes, pumpkin, and other starchy vegetables; fruits, particularly such sweet fruits as dates, figs, prunes, etc.; honey, butter, cream, nut or vegetable oils, and animal fats.

Foods which combine the proteids and carbohydrates: Milk, cereals, breads, vermicelli, macaroni, and the pulses or legumes (dried peas, beans, and lentils).

Now let us for a moment compare the body to a steam engine. The proteid foods are built into brain, muscle, and other body tissues, corresponding to the working parts of the locomotive which are constructed of iron, steel, and brass. The carbohydrate foods are consumed in the body, producing heat and energy, just as coal consumed in the engine produces heat and energy (steam) for the performance of work.

Since all work, whether mental or physical, results in the wearing out of bodily tissues, it will be clearly understood that at all times and seasons a certain amount of proteid food is needful to the body. During infancy and childhood, a larger amount of proteid in proportion to size is required, as the body has to maintain constant growth as well as activity. Carbohydrates, or heat and

ache, and other nervous symptoms. Excessive carbohydrate consumption results in obesity, diabetes, flatulence, and other digestive disturbances. The eating of insufficient quantities of either food elements leads to anæmia, wasting, neuralgia, neuritis, and lack of bodily strength and energy.

The chief variation in our food necessitated by the change of seasons is in the



TRY GROWING YOUR OWN VEGETABLES

energy-producing foods, are also needful at all periods of life.

It is impossible to state a fixed rule as to the relative proportion of these two important food elements. It is only necessary for us to remember that the proteid is required in much smaller amount than the carbohydrate; say, one part of proteid to seven or eight or even ten parts of carbohydrate.

To partake of excessive quantities of either food element is certain, sooner or later, to result in disease. The over-consumption of proteid food leads to rheumatism, disorders of the kidneys, head-

proportion of heat-producing foods. During the colder months, when the body is obliged to maintain its temperature at 98.4° F., while the temperature of the air is many degrees colder, a larger proportion of carbohydrate foods is required than in the summer when the air is much warmer than the body.

To make the matter quite simple—during the warm months fatty foods, which are great heat-producers, should be used sparingly, also the starchy and sweet foods should be eaten moderately. The juicy fruits and green vegetables are particularly suitable for summer use, as

they appeal to the appetite, and are cooling to the blood. As stated before, the proteid element is needful at all seasons of the year.

As winter approaches, nature restores our appetite for the dishes which were distasteful during the warm weather. Butter, cream, olive oil, nuts, and other wholesome fats may now be eaten more freely, as they help to maintain the heat of the body. The cereals, starchy vegetables, and sweet fruits, as figs, dates, prunes, and raisins, are also suitable winter foods, and may be eaten as freely as is consistent with good digestion.

The legumes (dried peas, beans, and lentils) are also suitable winter foods, if prepared in a wholesome manner. Being rich in the flesh-producing element, they are excellent meat substitutes; but unlike meat, they also contain a large proportion of starch. Legumes require to be soaked in cold water over night, then gently boiled for several hours. When quite tender they may be pressed through a colander or coarse sieve to remove the skins, as it is the skins which cause discomfort to those with weak digestion. The pulp, or purée, prepared as above described, may be used in several ways. Diluted with milk, vegetable stock, or the water in which the legumes were cooked, it makes a delicious and nutritious soup. Mixed with breadcrumbs, and nicely seasoned, it may be made into rissoles, or baked in the oven as a roast. Enclosed in pastry it makes tasty "turnovers" suitable for the husband's or children's lunch box.

While rich desserts should always be avoided, milk puddings, fruit charlottes, plain, boiled, and baked puddings, and fruit tarts are very acceptable during the winter months.

A few suggestive recipes may be helpful to the housewife:—

A Few Breakfast Dishes

Maize Meal Cutlets.—Make rather a stiff porridge with yellow maize meal, sprinkling the meal through the fingers into salted boiling water, and beating with a batter whip. Boil slowly for half an hour or longer; then turn out into an enamel pie-dish and let stand over night. In the morning cut

the porridge into half-inch slices, dip into egg and breadcrumbs, and brown in an oiled pan in the oven. Serve hot with syrup or honey.

Egg Scrambled in Tomato.—Beat the number of eggs required; add salt and a little strained tomato juice obtained from either freshly stewed or tinned tomatoes. Scramble in the ordinary way, and serve on buttered toast.

Baked Apples with Dates.—Select large sound apples. Remove the cores, and fill the cavity in each apple with stoned dates. Baked in a slow oven, these apples are delicious.

Banana Toast.—Prepare several slices of zwieback. To do this, cut bread in fairly thin slices, and place in a slow oven with the door slightly ajar. Leave until it is dry throughout and slightly browned. Just before serving, dip each slice of zwieback in boiling milk, and place upon it a spoonful of ripe, freshly-sliced banana.

A Few Dinner Dishes

Cream of Tomato Soup.—If a quart of soup is desired, prepare about a pint and a half of milk sauce, boiling it for five minutes. Then add one cupful of strained tomato obtained from freshly stewed or tinned tomatoes. Season with salt and a little butter, and serve very hot with zwieback or toast.

Green Peas with Nut Meat.—Cook the peas until tender, adding a teaspoonful of sugar but no soda. Allow from an hour to an hour and a half for boiling, and add such a quantity of water that there shall be a little left when the peas are tender. Do not turn this water off. Now add some nut meat cut into small cubes (one-half pound of nut-food is ample for one-half peck of peas), and boil for a few moments longer. Season with salt and a little butter. This is a very tasty and nourishing dish, and with baked potatoes and a simple pudding would make an excellent dinner.

Lentil Puree with Tomato Sauce.—Cook the desired quantity of dried lentils (peas or beans) as described previously. When quite tender, press the lentils through a colander to remove skins, retaining the broth for a soup, which may be served the following day. Season this lentil pulp nicely with salt, and onion if desired. Pile it up in the centre of a hot serving dish, and have ready a little tomato gravy, made by thickening strained tomato juice with cornflour. Pour the hot tomato gravy around the pile of lentil purée, and serve with potatoes or any other vegetable desired.

Stuffed Marrow.—Cut the ends from a small marrow, and remove the seeds. Fill the cavity with a stuffing made of breadcrumbs, a hard-boiled egg, a little tomato, seasoning, and milk. Bake in a slow oven, basting from time to time with a little oil or butter.

Apple Charlotte.—Peel a number of apples, and cut into thin slices. Place these in an enamelled pie-dish and sprinkle with sugar and a tablespoonful of water. Cover the apples lightly with breadcrumbs, into which has been rubbed a little butter and sugar. Bake until the apples are tender and the top is a golden brown. Fresh peaches, apricots, plums, or bottled fruit, without the juice, may be used in preparing this dish.

CHATS WITH THE DOCTOR



NOTICE TO SUBSCRIBERS: All questions for this department must be addressed to the EDITOR, "LIFE & HEALTH," WARBURTON, VICTORIA, and not to Dr. W. H. James, who will treat correspondence only on usual conditions of private practice. Subscribers sending questions should invariably give their full name and address, not for publication, but in order that the Editor may reply by personal letter if he so desires. Because of this omission several questions have not been answered. To avoid disappointment subscribers will please refrain from requesting replies to questions by mail.

20. Loss of Weight—Worms

"Sigma" writes: "I have been since 1912 a vegetarian. I was told when I began the diet I would lose weight at first, but in six months I would put on two stone. . . . Instead of gaining weight, however, I have lost weight. My weight now is 7 stone 6 lbs.; it was then 7 stone 13 lbs. This morning I noticed a small worm in the excreta; I enclose it. Can you tell me what kind it is, and would they account for my failure to put on flesh, and what would remove them?"

Ans.—Loss of weight does not necessarily mean loss of strength and vitality; if strength and vitality remain, the loss of weight is often an advantage. Correspondent's weight, however, is very small for an average person. Weight may be increased by the addition of fat, the taking of large quantities of carbohydrates, such as potatoes and farinaceous dishes. Cream and bread will often produce increase of weight from this cause, but increase of weight from the accumulation of fat is not desirable. An excess of fat in the tissues is a burden. All our tissues are albuminous; they contain nitrogen as one of their elements, and unless albumens are presented in sufficient quantity and in a digestible form there must be loss of weight from the oxidation of the tissues themselves. If sufficient albumens

are not taken in the food the tissues themselves supply the deficiency, and loss of weight is the result. The loss of weight in correspondent's case is probably due to taking albumin either in an indigestible form or in insufficient quantity. Those of sedentary occupation cannot digest and assimilate such articles of diet as dried beans, peas, and lentils, except in very small quantities. These foods have to be carefully prepared and taken in small quantities to be digested and assimilated; in fact, we only recommend them to those of vigorous occupation. Milk, lightly-cooked eggs, macaroni, gluten, oatmeal, wheatmeal, and the nut meats are the best form of albuminous foods for the individual with a more or less sedentary occupation. We would recommend "Sigma" to read the article in this issue on "Amount of Proteids Daily Required." The "worm" unfortunately disappeared by the time the letter reached us. It was probably a threadworm. These would not cause the loss of weight. The best remedies for these are injections into the bowel after stool of salt and water—one dessertspoonful of salt to half pint of water. This should be done about three times a week. Santonin grs. iii at night followed by dose of salts or castor oil before breakfast once or twice weekly will be a useful adjunct to the use of the enemata.

21. Ringworms

"Glen Innes," N.S.W., asks for a cure of ringworms on the head and body.

Ans.—Ringworm on the body is easily cured. The superficial layer of the skin should be destroyed by the application of iodine, liquor épispasticus, or other blistering fluid. Then apply an ointment of chrysarobin and lanoline (twenty grains of former to one ounce of latter). The iodine used must be the strong liniment and not the tincture. Instead of the chrysarobin ointment, which stains the clothes, the following ointment may be used :—

℞ Sulphur (sublimed) 3 grains
Acid carbolic 20 minims
Lanoline 2 drams
Olive oil 2 drams

Rub either of these ointments in thrice daily. For young children a milder application should be used, as—

℞ Hydrag. ammon. 3 grs.
Lanoline 1 oz.

For the scalp, all the hairs should be pulled out and a clear piece of healthy scalp also denuded. Apply the liniment of iodine to remove the superficial layer of skin. Wash the parts with the following :—

℞ Salicylic acid, grs. xv.
Æther, 1 ounce

This lotion when applied early is frequently sufficient by itself to effect a cure. No ringworm should be washed with water, for this feeds the parasite. In chronic cases the chrysarobin ointment should be used after the salicylic lotion. In chronic cases of ringworm of scalp the treatment must extend over months.

A child with ringworm should be isolated from other children. Sleeping with other children or using the same towel must on no account be permitted. Children who have come in contact with those affected with ringworm should have their heads examined daily for some time.

22. Decayed Teeth

"H.J.H." states that his daughter (five years of age) has very bad teeth, and wishes to know how to preserve the second teeth after they appear. She suffers from constipation, but "her general health is perfect."

Ans.—The digestion must be attended to. Milk, wheatmeal, and oatmeal should be used largely in diet in order to supply lime in a form that can be assimilated. Avoid flesh foods and much sloppy food. Sweets of all kinds should be largely eliminated from the dietary. The mouth and teeth should be cleansed three times daily after each meal. Essence of cinnamon—a teaspoonful to half a pint of water—makes a good wash. Most of the dental antiseptic creams in collapsible tubes on the market are beneficial for the teeth. Any constitutional trouble must of course receive attention. The regular daily sponging of the whole body is very beneficial; the bedroom should be well ventilated, and as much time as possible spent in the open air. Correspondent states that his daughter does not drink tea, coffee, etc. This fact will benefit her considerably in after years.

23. Nervous Exhaustion

"Mrs. J.T." writes: "I have had nervous exhaustion for some time, have had tonics, am not doing much housework. Am improving very slowly. I cannot stand much fatigue, some days I can only keep on my feet one hour or sometimes two at a time. I get nervous headaches and feel bad and weak all over. . . . Do you think the galvanic or electric battery would do me good?"

Ans.—Electricity in either galvanic or faradic form would be useless in this case. As much sleep and rest as possible should be obtained. Gentle general massage after the body has been sponged with cold water and dried thoroughly with a rough towel would act as a tonic. The rubbing of olive oil into the skin of the whole body would act as a good tonic. After these treatments rest in bed for a

couple of hours would be necessary in this case. Fresh air and good food in abundance are absolutely necessary. Milk, raw eggs, grape juice, and malted nuts should be partaken of freely.

24. Free Use of Fruit

"Peron" asks if "too much fruit—stewed or fresh—has any bad effect on the general health," and "if the sediment in urine is due to kidney disease."

Ans.—Yes, certainly, too much fruit may be taken, especially when taken between meals or after a full meal. The juice of oranges, lemons, or grapes may be taken between meals, but not solid fruit. Fruit must not be relied on to supply nourishment to the body; it is largely "a lubricator" to keep the machinery in order. A meal of fruit for the evening meal is excellent. Fresh, mature fruit is better than stewed fruit. "Peron" is referred to an article on "Use of Fruit" in the last issue of LIFE AND HEALTH.

The sediment in the urine is probably due to faulty digestion and not to any kidney trouble.

25. Moles on the Face

"Miss E. B." writes: "I have several moles on my face. Could you tell me what causes them, how to prevent them, and how to remove them?"

Ans.—The cause and development of moles is not known. They are usually congenital or occur soon after birth. When unsightly they can be removed by the knife or caustics. Chloride of zinc and ethylate of soda may be painted over the mole and allowed to scab over. A second or a third application may be necessary. A mark is left at seat of mole. Where the mole is large, skin grafting after operation lessens the deformity. We know of nothing that will prevent their appearance. The moles should be surrounded by vaseline to protect the healthy skin before applying a caustic. This kind of work, however, would be better left in the hands of the medical man. When moles suddenly

increase in size they should be removed, as they occasionally become the seat of cancer. They certainly do not predispose to cancer, but when the cancerous conditions exist the mole may be the point at which the malignant growth may show itself.

26. Necrosis of Right Shoulder

"Mrs. K. S." writes: "I have been troubled many years with a necrosis of the right shoulder, and have had small portions of the dead bone removed, having undergone four operations for the same. Have been X-rayed, revealing the fact that necrosis is still present. I am in continual pain in the shoulder."

Ans.—We are afraid there is nothing else but operation and the building up of the general health. Necrosis—death of bone—always means a very slow recovery.

27. Ulcerations of the Mouth

"Mrs. H. S." writes: "I suffer a great deal with ulcers of the mouth. They come first as little red pimples, then after two days break and form yellow spots. They are very painful, especially when eating."

Ans.—This condition is known as "Aphthous stomatitis." It is probably parasitic, although no special parasite has been found in connection with it. The general health should receive attention, especially the digestion, the mouth and teeth should be thoroughly cleaned three times a day. All decayed teeth should receive the attention of the dentist. Each ulcer should be touched with a solution of nitrate of silver (eight grains to the ounce of water). A wash of chlorate of potash (teaspoonful to half pint of water) is also very helpful.

"R.O." complains of same trouble, and asks: "Could you favour me with a dietary treatment that would remove the cause. I am a small meat eater. What food would take the place of meat?"

Would it be advisable to leave off muscatels and dates? Is there any fruit that I should not eat. The last few weeks I have left off tea, coffee, and cocoa, and am now drinking milk, water, and lemon squash."

Ans.—Milk, lightly-cooked eggs, macaroni, vermicelli, oatmeal, and wheatmeal give all the albuminous elements necessary. Gluten and the nut meats, as well as nuts, contain proteids in abundance. Muscatels, dates, and fruit are good. Some dry food that needs a fair amount of mastication is always good.

28. Geographical Tongue (Eczema of the Tongue)

"Mrs. A. E. W." writes: "My little girl aged two years and nine months is always troubled with her tongue. Every few weeks the skin peels off in patches. It starts in different places in spots till all the skin comes off, leaving the tongue clear and well for a few days, and then it starts all over again. Sometimes she says it is sore. . . . The tongue is not coated, and her bowels are regular."

Ans.—As a rule this affection causes a good deal of itching, and often it causes unnecessary worry, the patient being afraid of cancer. The cause of the disease is not known. It occurs in infants and children, and sometimes in adults. It is very obstinate in adults. Paint the tongue once a day with a solution of nitrate of silver (ten grains to ounce). This is the best treatment.

29. A Complicated Case

"Mrs. A. C. B.'s" case is too complicated to be dealt with in these columns. A thorough examination is necessary. A month at one of our sanitariums would be very helpful. We would advise treatment as under nervous exhaustion.

30. Bad Leg

"Mrs. W. J. S." writes: "I have a bad leg, it has just broken out again. About eight years ago I had the veins of the leg removed." This is the second time it has

got bad since the operation. It gets very hot and itchy, and prevents me from sleeping at night. I put on hot fomentations, but do not know if that is right."

Ans.—Rest in bed is necessary for this case. Boil a piece of gauze or cheese cloth in water. When cool enough cover the wound. Over this place a piece of oiled silk (obtainable from any chemist) and bandage. Give this treatment three times a day. At night apply hot fomentation over the gauze after removing the oiled silk. About three hot fomentations should be used at this time. Between the fomentations (which should be kept on about five minutes) apply cold wet cloth for three minutes. Keep the bowels regular.

31. Trembling of Arms and Legs

"Cooperbrook" writes: "I have trembling of arms and legs on excitement, great difficulty in turning round, have to make almost a complete circle to get my body round, and difficulty sometimes in lifting my feet. I sleep soundly, have very fair appetite, and my habits are regular."

Ans.—The symptoms certainly point to some nervous disease, but without an examination we could not give a definite opinion. Everything that irritates the nervous system should be dispensed with, such as the use of tea, coffee, cocoa, and flesh foods. As much rest as possible should be taken, and the night's sleep should be as long as possible. Keep the strength up with such foods as lightly-cooked eggs, milk, oatmeal, macaroni, and the nut meats. Fruit and vegetables are essential. Sponge the body daily with cold water. The use of galvanic battery would give help. This patient really needs a month's sanitarium treatment.

UNANSWERED QUESTIONS

We frequently receive questions that are of such a nature that they cannot be answered in these columns. Subscribers are asked to carefully read the notice at the head of "Chats" in reference to answer by post.



QUIET TALKS WITH MOTHERS

Health Hints for the Nursing Mother

EULALIA S. RICHARDS, L.R.C.P. & S., Edin.

THE nursing mother lives not for herself alone, but also for her child. Prior to birth his wee body was nourished by her own heart's blood, and now that he has begun life's journey, he is still dependent upon her. Fortunate the child whose mother senses her sacred responsibility and gives first thought to the welfare of her babe.

The infant who is nourished at his mother's breast has a great advantage over the hand-fed child. Gastritis, dysentery, wasting disease, and many other ailments of infancy are far more prevalent in artificially-fed than in breast-fed babies. In the majority of cases the mother's milk is admirably suited to the needs of her child. If for any reason the mother is unable to suckle her babe, great difficulty may be experienced in providing a food suited to its requirements. Indeed, it is a difficult matter in many cases to so modify cow's milk that it shall possess the same nutritive and digestive qualities as mother's milk.

We see then that the mother's first duty is to her child. In order that she may have an abundant supply of wholesome milk, she must carefully guard her own health. No woman can or should expect to successfully nourish her babe while her own body is poorly fed, overworked, and ill-cared-for generally. The mother's diet, then, is a matter of primary importance. Too often she is burdened

with household duties and the care of other children, and in consequence neglects herself. Her meals are insufficient, irregular, and hurried. This is not right; for the mother, in neglecting herself, neglects her child.

"Just anything" is not good enough for the nursing mother. Her food should be of the best quality, ample in quantity, nourishing and digestible. Three wholesome meals in the day, with perhaps a nutritive drink between, should be quite sufficient. Milk should form an important part of each meal, for milk is the best possible milk-producer for the nursing mother.

A Suggestive Diet List

For breakfast there may be rice or well-cooked porridge with milk, a poached or soft-boiled egg, stewed or fresh fruit, bread and butter, and frucerea or other cereal drink made with milk.

For dinner the mother will probably enjoy a milk soup, such as tomato-cream soup, celery, potato, or rice soup. Following this there may be baked or mashed potatoes, a light vegetable such as cauliflower, pumpkin, marrow, green peas, or beans, and one dish to provide the proteid element. The latter may be macaroni, variously served, lima beans, nut meat, grilled or otherwise prepared, or eggs served in some attractive way. There is a large variety of tasty, vegetarian dishes

which are quite as nourishing and really more wholesome than meat for the nursing mother.

The dessert may consist of a milk pudding, fruit tart, or any simple sweet.

The evening meal should be a light

foods, and such vegetables as cabbage, onions, and turnips.

The nutritive drinks mentioned previously should be very light. A glass of fresh orange juice has a beneficial effect upon the bowels and kidneys and may with advantage be taken once daily, an hour before the meal. Barley water, nicely flavoured, nut meat broth, thin gruel, or fresh butter-milk are all suited to the mother's needs, and may be taken between meals if a sense of thirst or hunger is experienced. This is particularly necessary if the mother is suckling a vigorous baby who makes considerable demand upon her strength.

However, it should be remembered that it is quite possible for the nursing mother to take too much food, and that over-indulgence is almost, if not quite, as injurious as underfeeding. Many women find that three wholesome meals a day are quite sufficient, and drink nothing but water between meals. In most cases, however, it is best for the mother to take a glass of hot milk or some other suitable hot drink before retiring.

If, in spite of all care, the mother's milk is insufficient for the baby, she should give him one or two bottles of modified milk in the day. This will lessen somewhat

the demand made upon her and so enable her to continue nursing her baby for a longer period.

The general health of the nursing mother must also receive attention. Rest is one of the most important requirements. If the mother allows herself to become overtired, her milk will be altered both as to quantity and quality. In order to avoid over-fatigue she should, if necessary, have



"A HAPPY, SERENE MOTHER USUALLY HAS A CONTENTED CHILD"

one. Bread and butter, stewed or fresh fruit, perhaps a simple salad, and a hot drink are quite sufficient. Some, of course, may prefer to have a light luncheon at noon and dinner at night, but often the mother is too tired to digest a hearty meal at night.

Among the articles best omitted from the mother's dietary may be mentioned tea, coffee, mustard, pickles, rich fried

help with her housework during the nursing period. If this is impossible, she must simplify her household arrangements, reducing her work to the lowest possible terms. Even then she must learn to leave undone some things which she would like to do. Only by so doing will she be enabled to enjoy a rest each afternoon and her full quota of sleep at night. Each day the mother should go out of doors for fresh air and sunshine. By careful planning she may do much of her work upon the verandah, and so enjoy these blessings through many hours of the day.

The mother should understand that her milk will be much influenced by her mental condition. If she allows herself to be worried, nervous, and ill-tempered, her baby will also be fretful and irritable,

for her milk will be altered by her mental state. A happy, serene mother usually has a contented child.

In closing we would condemn the old-fashioned custom of giving ale or stout to nursing mothers. It is doubtful whether the taking of alcoholic drinks increases the flow of milk, but certainly if it does so, it is at the expense of quality. Alcohol, if taken by the mother, is secreted in her milk, so that her babe may be drunk at her breast.

Drugs, too, may be secreted in the mother's milk, so that she needs to exercise great care as to the medicines she takes during the nursing period. Apart from simple laxatives, it is best that she take no medicine except such as is ordered by her doctor.

Baby's First Six Months of Trouble

LAURETTA KRESS, M.D.

FEW of those to whom the responsibility of motherhood comes for the first time are adequately fortified by knowledge for the experiences that await them. The young mother, coming suddenly into absolute control of one of the most delicate and wonderful organisms, with constantly varying wants, realises her inability to understand the language of its needs. For aught she knows, the most trifling changes in temperature, clothing, or food may be attended with disastrous effects. Conscious of her ignorance of child nature, she naturally worries over every unusual symptom manifested by the child. It is my purpose in this article to help such mothers by a few simple suggestions as to the care of their infants.

It is normal for an infant to cry sufficiently to give its lungs proper expansion. The young mother who believes that all crying is an evidence of distress, and who thinks that something *must* be wrong when the baby cries, will naturally be

worried because of this physiological process. It is well to remember, of course, that all crying is not of this nature. Experience will gradually lead the intelligent mother to a proper interpretation of the language of crying, and one of the first things that a wise mother will learn is that crying is *not*, as a rule, a call for food. More often is it the signal of distress following improper feeding or too frequent feeding.

Immediately after birth, the child should be wrapped in a warm blanket and put in a warm place. It should be oiled with warm olive oil, and its eyes should be washed with boracic acid solution. It is not necessary to give the little one a bath at first, for the oil loosens the *vernix caseosa*, so that by wiping with a soft cloth, the infant is clean, without the necessity of exposing it to the danger of taking cold. The cord should be dressed with a piece of soft sterile cloth, and held in place by means of a binder put on rather snugly, and either sewed or

pinned with small safety-pins. The cord should be disturbed as little as possible until it drops off.

The clothing should be light in texture, warm, and non-irritating. The chest and arms should be covered with a woollen under-shirt, and the petticoats should have bodices on them so that all the weight is borne from the shoulders. The feet must be kept warm, as cold feet are responsible for many attacks of colic and indigestion. The night clothing should be of light flannel, a loose gown hung from the shoulders.

The eyes of a young infant are very sensitive. They should be washed with boracic acid solution for the first few days, and the washing should be repeated if a discharge appears at any time. Baby should at first be kept in a darkened room, for the bright sunlight is irritating to its eyes.

The mouth should be cleansed with a soft cloth wet with boiled water. A little boracic acid or bicarbonate of soda solution, ten grains to the ounce of water, may be used if the mouth or tongue is inflamed. Thrush, if it appears at all, shows itself within the first few months. This disease never need occur if the mouth of the babe and the breast or the nursing-nipple are kept clean. The mouth and the nipple should be washed after every feeding. Thrush is a parasitic disease, and the fungus grows upon the tongue or cheeks in the form of patches which look like curds of milk. As these are washed off, they leave red, irritated spots. In caring for a mouth infected with thrush, use pieces of clean linen cloth about two inches square. Place one over the finger, dip into the boracic acid solution, and with it wipe out the mouth, repeating until all the curd-like formations are removed. Destroy each piece of cloth as soon as used, taking a new piece each time the finger is introduced.

Another frequent trouble in young babies is colic. So common is it that most mothers think it is a necessary trouble, the lot of all healthy children.

As a matter of fact, however, it is the result of wrong management, usually faulty feeding, either of the mother or of the child. A nursing mother who desires to furnish her baby with the sweetest, most wholesome food, must herself eat foods that will not disturb her milk, and must keep herself from worry, nervousness, and ill-temper. In short, she must keep herself in the best of health in order to furnish healthful food for the child. A mother who eats promiscuously of vegetables, fruits, proteids, and fluid at one meal will be almost sure to have some trouble with her baby a short time after each nursing period.

To relieve colic, it is not necessary to give such things as soothing syrup and paregoric, for the removal of the gas from the child's stomach and bowels will relieve the child without the benumbing effects of the medicines. Soothing syrups are positively dangerous. Many of these are used promiscuously in country homes. I was called into a home where a child two weeks old had been given five drops of "mother's friend." The child soon after went into a sleep from which it never awoke.

When the child is in distress from indigestion, hot water will afford relief without compromising the health. In case of colic, allow it to drink warm water, withhold its food, wrap its feet in hot flannels, and place hot flannels over its stomach. If the warm drink does not ease the child, a small warm enema will often afford instant relief. After giving the child warm water, raise it up, and lay it over the shoulder or on its stomach over the knees. Pat it gently on its back, and the gas will rise freely. A child often sleeps gently with its stomach filled with warm water, and this gives the stomach time to rest and prepare for the digestion of the next meal.

The accidents of early childhood constitute another source of trouble to the young mother. A child often hurts itself by falling from its high chair, pinching its fingers in the door, and the like. Such accidents, though usually unim-

portant in themselves, may, through injudicious treatment, be attended with serious results. It is quite a common thing to see a mother pick up a fallen child and put it to the breast at once, in order to soothe it. Food taken by the child under such circumstances is hindered in its digestion, because the delicate nervous organism is temporarily disorganised by the fall, and the digestive powers are disturbed. Hence the food is vomited, or if it is retained, there may follow fever and convulsions. It is much better, in case of accident, to withhold all food until the shock is past, and in the meantime to give the child warm water to drink. The wound, if there is one, should be treated by bathing, first with hot water, then with cold water. In general, it should be remembered that it is decidedly injurious to the child to soothe its agitation or passion or fear by feeding it. Any intense emotion of this sort temporarily paralyses digestion, and all food is for the time not utilised by the body, and is a positive injury.

If a nursing mother is agitated or angry or grief stricken she should not attempt to nurse her child until the disturbing emotions are overcome, for milk secreted under such circumstances has poisonous qualities. The child will do far better to be given warm water at the regular feeding times until all danger from this source is past.

INSTEAD of turning a case of constipation in a child into a lifelong means of torture by the injudicious use of purgatives, try the following plan, which has given signal relief when tried: If baby's bowels fail to move at the proper time, remove the child from the chair or vessel, and pour some boiling water into the bottom of the vessel. If the child is again placed over the vessel, the warmth will probably stimulate the bowels to action. Do not allow the child to go beyond the usual time without a movement.—*American Life and Health.*

Fussy About Food

- "MOTHER, I don't like this bread."
 "Mother, can I have a piece of cake?"
 "I don't like this apple pie."
 "Why don't you eat your cereal?"
 "I don't want it, I don't like it."

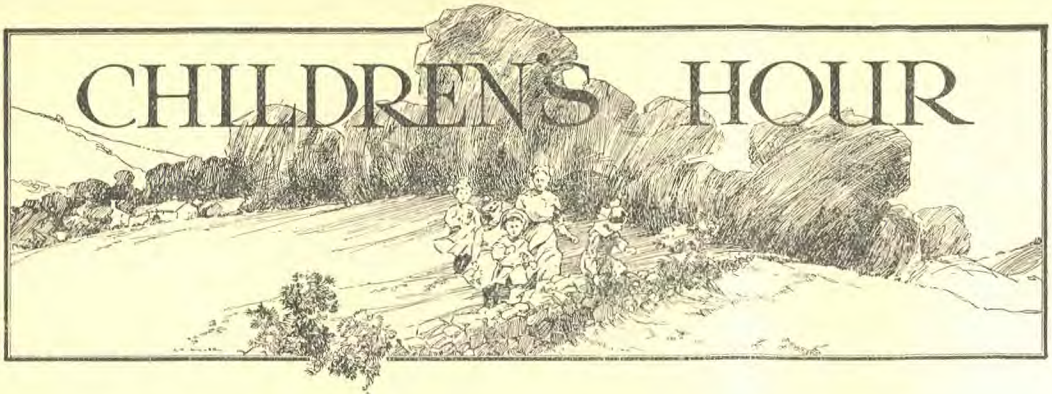
There are many families who will recognise remarks similar to the above. Some children are humoured by their mothers, and will eat hardly anything that appears at the table as a regular part of the menu for the whole family. The mother is partly at fault, and the children partly at fault. Many mothers seem to feel that if the child does not eat three meals a day, something very serious will happen because of the lack of a meal, because of the failure to fill the stomach. Frequently a child will have a finicky appetite or none. Here is a fundamental rule for child and adult: Never eat unless you are hungry. Never force food down yourself or your child. If you are not hungry, don't eat; nature is whispering to you to fast. And if you haven't an appetite for your dinner when you get home to-night, for conscience' sake don't eat, and trust nature to give you an appetite for breakfast.

If your child comes in from play or gets up in the morning with no appetite, don't urge it, and urge it, and almost force it to eat something:—

"Well, you can eat at least a piece of cake, can't you?"

"Here is some cake and cream."

I have heard mothers talk that way. Is that kindness? No, you can hardly imagine a more unkind thing for a mother to do than that; it is the height of un-wisdom. Nature is trying to work out the best good for that child, and is trying to protect it from overloading its system, and has removed its appetite. Now, get in harmony with nature, and say: "Very well, child, go and drink a glass of water," or perhaps, if it helps a little to drink hot water, let him come and sit at the table with the family and drink a whole cup of hot water and miss the meal. He will be ready for the next meal.—*Selected.*



The Twentieth-Hundred

ELSIE DARWIN came skipping home from school. Mother always said that when Elsie came skipping down the street she knew something nice had happened to her. Something nice *had* happened to-day, and it made Elsie feel very happy. So she skipped, and as she skipped she sang a little song.

It was an old, old tune which she sang, but no one else had ever heard the words, for she had made them up herself. She hummed very softly under her breath: "I got a hundred in spelling to-day."

It was not the first time Elsie had made one hundred in spelling. Not at all. Indeed, she had had one hundred just seventeen times that month, and now there were only three days more to spell. If she could have one hundred three days more, her name would go on the honour-roll. Then think of the joy of showing father her report card!

So Elsie skipped and sang her little song, "I got a hundred, I got a hundred," till she reached home and could tell mother. Of course, it would have been nice to surprise mother, too, but a little girl must have someone to talk things over with.

The next day was Wednesday, and Elsie skipped home from school that afternoon. The next day was Thursday, and Elsie skipped.

"Now, there is only one more day, mother," she said, "and I can surely just get one more. And won't father be surprised! And won't he be proud of me?"

Everyone in school was excited that Friday afternoon. The girls talked it over at recess. There were three girls in the class who had nineteen hundreds—Sadie Clark, Mabel Deland, and Elsie.

"You girls needn't be so sure," Lucy Case said. "You may make mistakes to-day. I was sure, too, when I had fifteen hundreds. I thought I could get five more, but I made a mistake that very day."

"Oh, but we won't make mistakes," said Sadie. "Will we, Elsie?"

"We will study just as hard till we know every word. Won't we, Sadie?"

Spelling class came just before school closed. Elsie could hardly sit still in her seat. Her little song kept running through her head. She was almost afraid she would sing it aloud.

"I'll get a hundred, I'll get a hundred, I'll get my twentieth hundred to-day."

This is what she sang to herself now.

"Only three more words to write," she thought. Her feet were tapping up and down under her seat, keeping time to the song.

Miss Morris pronounced the eighteenth word, "Deceive."

"Oh, dear!" thought Elsie. "One of those horrid 'ie' words that I could never spell. But I know this one to-day." She wrote it down.

Then there were two words more, and it was time to change papers. Elsie smiled at Sadie as they exchanged, and Sadie smiled back at Elsie. The smiles

meant that each little girl was sure her paper was correct.

Mabel Deland was asked to spell. Just as she began Elsie gave a quick glance down Sadie's column of words.

Yes, they were just like hers. No! Were they, after all? Elsie was looking at the eighteenth word. It did not look right.

"Decei—decei——" she said quickly to herself. Sadie had "ei." "Can she be right?" Elsie thought.

And then the awful truth came to her. Sadie was right. She was wrong! Mabel was spelling, and Elsie must try to follow her. And, oh, whatever she did she must not cry!

Elsie marked 100 at the top of Sadie's paper and gave it back to her. She tried to be brave and smile at Sadie, but it was hard to make the smile come. Sadie smiled back at her, however, as if everything were all right.

Elsie took her paper. She looked first at the eighteenth word. What had happened to it? It looked right now! Then she understood. Sadie had made the little mark with her pencil so that the dot was just halfway between the two letters. The "i" really looked like an "e." And no one need ever know. There at the top of her paper was the big one hundred mark.

"It is what I have worked for a whole month," Elsie thought. "And I can't bear to fail at the very end."

So when Sadie and the others stood, Elsie stood with them. But when Miss Morris praised them for their good work, Elsie did not feel as glad about it as she had expected to. She didn't feel like singing her little song, either. Instead, she kept thinking the word she had misspelt—"Deceive, deceive." She could think of nothing else.

"Is there a commandment that says, 'Thou shalt not deceive'?" she wondered. She didn't believe there was, but it sounded like one.

Elsie slipped away from the other girls when school was out and started home alone. She didn't skip at all to-night.

"I don't care," she said to herself. "I worked hard all month, and now my name is on the roll, anyway, and I can tell father."

This is what Elsie tried very hard to say to herself. But all the time another voice kept saying, "Deceive—deceive—d-e-c-e-i-v-e—deceive." And when she tried to think of telling father, as she had



"I GOT A HUNDRED IN SPELLING TO-DAY"

planned, she knew that she could never do it while that voice rang in her ears.

There was just one thing that she could do. She turned around and walked fast, almost ran, back to the schoolhouse. Then when Miss Morris understood all about it and her name had been erased from the board, she started home once more. She did not skip nor sing, but the voice had stopped.

She told her mother when she reached home, and cried, too, with her head in her mother's lap. "Now it is all spoiled,"

she sobbed, "and there won't be anything to tell father at all."

"I think I would tell him, dear, if I were you," mother said. "I think I would tell him the whole story."

Elsie did tell as she sat on his knee after supper. "And now you can't be proud of me at all," she finished.

"But I am proud of my little girl because she had the courage to be honest," he said, "and I believe she has made me more happy than if she had told me of a twentieth-hundred."—*Selected.*

Scotland Saved by a Thistle

BILLY, a bright-eyed boy, in his eagerness after flowers, had wounded his hand on the sharp, prickly thistle. "I do wish there was no such thing in the world as a thistle," he said in hot temper.

But his father said calmly: "And yet the Scottish nation think so much of it that they engrave the thistle on the national arms."

"It is the last flower that I should pick out," said Billy. "I am sure they could have found a great many nicer ones even among the weeds."

"But once this thistle did them such good service," said the father, "that they learned to esteem it very highly. One time the Danes invaded Scotland, and they prepared to make an attack upon a sleeping garrison. So the Danes crept along barefooted, as still as possible, until they were almost on the spot. Just at that moment a barefooted Dane stepped on a great thistle, and the hurt made him utter a sharp, shrill cry of pain. The sound in the still night awoke the sleeping Scotch soldiers, and each man sprang to arms. They fought with very great bravery, and the invaders were driven back with great slaughter. So you see this thistle saved Scotland, and ever since it has been placed on their seals and emblems as their national flower."

"Well," said Billy, "I would never suspect that so small and ugly a thing could save a nation."—*"Pleasant Hours."*

Shopping by Post

This method of purchasing your requirements means with us, the completest satisfaction to you. Note our special claims for supremacy in our Mail Order Department:—

We refund the money on all goods returned as unsuitable, except articles made to order, or materials cut to special lengths.

We have a capable and experienced Staff in this Department; this ensures promptitude and despatch in all transactions.

We pay Carriage on all purchases except on bulky articles, as Floor Coverings, Furniture, Bedding, Bedsteads, Glassware, Toys, and the like, to any address in the Commonwealth.

BALL & WELCH Pty. Ltd.

180-188 Flinders St., Melbourne 569-581 George St., Sydney

Life and Health

The
Australasian Health Magazine

Published
EVERY TWO MONTHS

48 Pages and Cover

Price (Payable in Advance):

For 12 months, post paid, Commonwealth
and New Zealand, 3/6

Foreign Countries, post paid, 4/6

All orders sent direct to the publishers or their agents, either for single subscriptions or for clubs, must be accompanied by cash.

SIGNS PUBLISHING COMPANY LIMITED, Melbourne
and Warburton, Victoria, Australia

When forwarding Money Orders or Postal Notes, please make same payable to SIGNS PUBLISHING COMPANY LIMITED, WARBURTON, and not to individuals. All remittances from New Zealand should be in the form of Money Orders, as Postal Notes or Stamps are not negotiable in the Commonwealth.

Our General Agents

Address: "Life and Health"

Victoria

Chancery Lane, 422 Little Collins St., Melbourne
C/o Victorian Tract Soc., 327 Collins St., Melb.

Tasmania

C/o Tasmanian Tract Socy. Franklin Chambers,
Macquarie St., Hobart

New South Wales

"Tereora," The Avenue, Strathfield
304-308 George Street, Sydney

South Australia

116 Grote Street, Adelaide
19 Grenfell Street, Adelaide

West Australia

"Warwick House," St. Georges Terrace, Perth
103 William Street, Perth

Queensland

186 Edward Street, Brisbane
Corner Peel and Grey Streets, Brisbane

New Zealand

108 Ponsonby Road, Ponsonby, Auckland, N.Z.
Strand Arcade, Queen Street, Auckland
83 Willis Street, Wellington
7 Battersea St., Sydenham, Christchurch.
86a Cashel Street, Christchurch

LIFE AND HEALTH

WILL BE PUBLISHED

Every Two Months

COMMENCING WITH THIS ISSUE



It has been found that the change recently made from bi-monthly to quarterly editions of this magazine has not proved acceptable to our agents or subscribers. Difficulties have arisen in connection with our agencies, and many complaints have been registered by our readers regarding the long time that must elapse before they can receive answers to their queries in the "Chats with the Doctor" department.

These and other important considerations, have induced the publishers to return to the original bi-monthly plan.

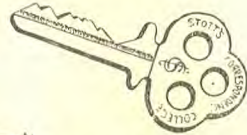
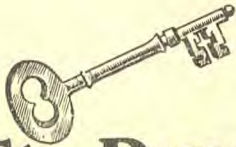
The "season number" feature, however, which was a prominent reason for the change, will be retained, and this will necessitate a slight re-adjustment of publication dates.

Issues will in future be distributed throughout the year and named as follows:—

Jan -Feb.	Midsummer Number
Mar.-Apr.	Autumn Number
May-June	Winter Number
July-Aug.	Midwinter Number
Sept.-Oct.	Spring Number
Nov.-Dec.	Summer Number

As careful attention will be given to the preparation and selection of **seasonable** articles for each issue, the magazine will become increasingly valuable, and subscribers are advised to preserve all copies for future reference.

SUCCESS



The RIGHT KEY to it is TRAINING!

WHICHEVER way you may turn in the search for **ADVANCEMENT, BIGGER PAY, BRIGHTER PROSPECTS**, you will be confronted by a locked doorway at the entrance to **Success**, which opens only to the right key—the key of **TRAINING AND QUALIFICATION**. All comers are not admitted. You know this yourself.

If you are a Clerk or Book-keeper, and desire the Key to Success, you can acquire it by Training and Qualification in Accountancy, Advertising, Salesmanship, or General Business Practice. If a Mechanic, you must have specialised training in Mechanical Draughtsmanship or Engineering to open the Door to Success in that sphere. There is no other way. And so on through the numerous callings and professions enumerated below, from which any man or woman may Choose the Career best suited to his or her circumstances, aptitude, aspiration, inclination, or ambition.

The present holds great and glowing chances for the men and women who aspire to independence and prosperity. To a Brighter Future, Better Standing, MORE MONEY, and SUCCESS, THE RIGHT KEY IS TRAINING

You may ask, "Can I qualify for any one of these callings?" Yes, of course you can! Thousands of men and women are doing so.

You should get some particulars of what is doing. Send **TO-DAY** for our illustrated **PROSPECTUS "G"**—a veritable mine of information—**FREE!** It will be accompanied by a special letter of advice upon the subject that interests you. It will place you under no obligation. Send for this valuable information without delay. The matter is an important and urgent one—for **YOU!**

STOTT'S CORRESPONDENCE COLLEGE

(Address nearest office)

100 Russell Street, Melbourne

70 Pitt Street, Sydney

Creek Street, Brisbane

AMONG OUR 250 COURSES ARE THE FOLLOWING!—

Civil Engineering	Bookkeeping
Shire Engineering	Shorthand, Typewriting
Bridge Construction	Accountancy
Surveying	Commercial Law
Electrical Engineering	Journalism, Literature
Telegraphy, Telephony	Story Writing
Steam Engineering	Mathematics
Wireless Telegraphy	Languages
Gas and Oil Engines	Drawing, Illustrating
Suction Gas Plants	Architecture
Irrigation Engineering	Architectural Drawing
Sanitary Engineering	Building Construction
Mining Engineering	& Estimating
Chemistry, Metallurgy	Agriculture
Mechanical Drawing	Fruit Growing, etc.

We Successfully Prepare for **ALL** Public Examinations.

TELL US WHAT **YOU** ARE INTERESTED IN.
INFORMATION FREE!


CROWN BRAND
Rinoldi
MACARONI VERMICELLI
 AND
FANCY PASTES

MADE BY LATEST
UP-TO-DATE MACHINERY
from
FIRST QUALITY MACARONI WHEAT


A Nutritious Food,
easily digested and
of Delicious Flavour

THE LEADING BRAND
for SOUPS, PUDDINGS
and MILK DISHES

COOKING DIRECTIONS ON ALL 1lb. PACKETS

Thos Reynolds
11B Williams Road, Prahran
Cable Address: Reynolds, Prahran Code: ABC 5th Edition



BOSISTO'S
"PARROT BRAND"

 TRADE MARK
 REGD

EUCALYPTUS
OIL

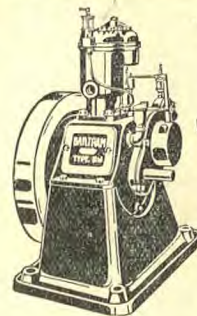
FOR
RHEUMATISM,
SPRAINS,
BRUISES, WOUNDS,

COUGHS, COLDS,
BRONCHITIS, &c.

AVOID IMITATIONS

ASK FOR *BOSISTO'S*

"PARROT BRAND"



The "Bartram" Engine

is undoubtedly the most useful piece of machinery you could have about your farm. 'Twill drive the chaff-cutter, milking-machine, separator, churn, saw-bench, etc., far better than either yourself or your man could do it. Write for CATALOGUE "B 14" and learn all about the "Bartram" — the best farm engine in the world.

Agents for "Alfa-Laval" and "Excell" Separators, "Leslie Salt Licks," "Bartram" Tarpaulins

J. BARTRAM & SON
 PTY. LTD.

586 Bourke St. Melb.

DO YOU WANT TO KNOW HOW TO

Reduce the Cost of Your Living?

If so, call at the nearest branch of the
SANITARIUM HEALTH FOOD CO.'S VEGETARIAN CAFÉ



VIEW OF ONE OF OUR VEGETARIAN DINING ROOMS

An excellent assortment of Health Foods always on hand
BRANCHES IN ALL STATES

Note carefully the addresses

THE SANITARIUM HEALTH FOOD COMPANY

SYDNEY (Head Office), 304-308 George Street,
(between Post Office and Hunter Street)

MELBOURNE, Chancery Lane, 422 Little Collins Street

ADELAIDE, 19 Grenfell Street (near King William Street)

BRISBANE, 186 Edward Street (near Queen Street)

PERTH, 103 William Street

WELLINGTON, N.Z., 83 Willis Street (over Shortt's Pictures)

AUCKLAND, N.Z., Strand Arcade, Queen Street

Write or call for copy of **NEW DESCRIPTIVE BOOKLET**

When replying to advertisements please mention "Life and Health."



ALWAYS USE

SALUTIS SOAP

(THE OLIVE OIL SOAP)

Unequalled for Toilet and Nursery
Refreshing and Fragrant

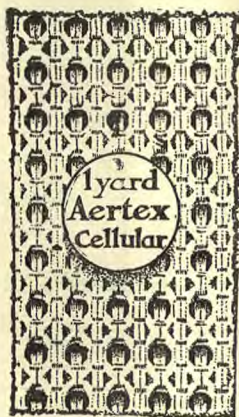
RECOMMENDED AND USED BY THE
SYDNEY SANITARIUM

Obtainable at

THE SANITARIUM HEALTH FOOD COMPANY
304-308 George Street, Sydney,

And all Branches throughout Australia and New Zealand

Sole Agents: B. CALLOSE & SONS, Sydney



Aertex Cellular Shirts

Aertex Cellular Under-shirts, Pants, Pyjamas, Socks, Fabrics, etc.—also Ladies' Underwear

Diagram showing the wonderful protective quality of Aertex Cellular in proportion to its weight.

Samples and price lists on application

DAVID BRAHAM & CO.
76 Market St. Sydney

Equal in Weight to



Telephones Burwood 664 and 427

H. R. REUBEN

Dental Surgeon

Railway Parade
Burwood, N. S. W.

Dietetic Errors

How They May be Avoided;
Their Relation to Disease.

By D. H. Kress, M.D.

64 Pages . . . Price Sixpence, postage 1d

Dr. Franklin Richards

Formerly Medical Superintendent of the
Sydney Sanitarium

is Practising at
141 MACQUARIE STREET, SYDNEY

The Most Aromatic and Delicious
Cereal Beverage Made

Frucerea Essence

The New Instantaneous Food Beverage
For Breakfast Dinner and Tea

No Boiling or Straining

Makes a delicious cup of Cereal-Coffee in a minute. Does not attack the heart and nerves as do Tea and Coffee. Prepared wholly from grains and fruits by our special process.

Guaranteed under Pure Food Act

READY INSTANTLY

Here's the way you do it—

Place a teaspoonful of the Frucerea into a cup and add boiling water and milk with sugar to taste—that's all.

Always Keep a Bottle in the Home

NOTICE: Cold milk added to coffee will always spoil the effect—therefore hot milk is preferable.

MANUFACTURERS—

SANITARIUM HEALTH FOOD CO.

Head Office: 304-308 George Street, Sydney

BRANCHES AND AGENCIES

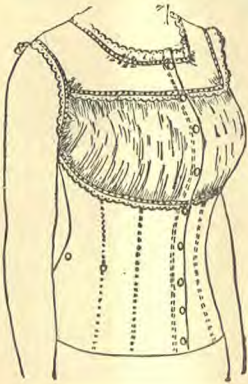
MELBOURNE, Victoria, Chancery Lane, 422 Little Collins Street
ADELAIDE, S.A., 19 Grenfell Street
BRISBANE, Queensland, 186 Edward Street
PERTH, W.A., 103 William Street
AUCKLAND, N.Z., The Strand, Queen Street
WELLINGTON, N.Z., 83 Willis Street (over Shortt's)
CHRISTCHURCH, N.Z., 86 Cashel Street
HOBART, Tasmania, H. Moore, Liverpool Street
LAUNCESTON, Tasmania, J. Beck, Charles Street

On application to any of the above addresses our new descriptive booklet will be supplied free.



When replying to advertisements please mention "Life and Health."

Health Appliances for Home Use



SOLID COMFORT is to be found in wearing the

GOOD HEALTH BODICE

A perfect substitute for the corset. Gives satisfactory support, and allows perfect freedom of movement. A well-made and well-fitting garment.

Patterns, cut to measure (post free), 1/6

Bodice carefully made to measure in either white or drab jean.

PRICES: plain, 10/6; trimmed, 12/6

In ordering send bust, waist, and hip measurements, also length front and back from base of neck to waist line. Measurements should be taken snugly over underclothing.

TESTIMONIAL

To Manager,

Dear Sir.—The "Freedom Waists" came duly to hand, and they fit splendidly, for which accept my sincere thanks. They are a boon to me, for I have not worn corsets for over twenty years, and on returning to Australia I had a difficulty in buying anything in that line to suit me, until I learned about your "Freedom Waists." Now I am perfectly satisfied.

I remain yours faithfully,

C. J. B. DURHAM.

"Rabenu," Mt. Victoria.

Address orders to "AUSTRALIA'S HOME OF HEALTH," Wahroonga, N.S.W.

Christchurch Sanitarium and Health Home

PAPANUI, CHRISTCHURCH, N. Z.

An Ideal Home for the Treatment of Non-Contagious Diseases

The treatments consist of baths of different kinds, including Electric Water Baths, Hot Air and Vapour Baths, Sitz Baths, Packs, and Sprays.

Electricity in its different forms, Galvanic, Faradic, Static, and Sinusoidal Currents being employed and adapted to the requirements of individual cases.

Trained Nurses of both sexes in attendance.

Massage.—Swedish Manual Movements which are of great value in improving weak muscles, restoring displaced organs, and correcting curvature of the spine, given by trained manipulators.

Special attention is given to all forms of digestive disorders, and the diet required for their treatment.

Diet receives special attention.

Dr. Eulalia Richards

is Practising at

141 MACQUARIE STREET, SYDNEY

Baby's Firsts

By DR. MARY WOOD-ALLEN

A valuable book on the physical care of the babe from the time of its arrival to the beginning of the second year. Written by a physician and a mother, it treats all the topics considered in a scientific, yet simple and thoroughly practical manner. A boon to mothers; it tells how to make many of the small things which add to the baby's comfort.

Price, post free, 1/-

SIGNS PUBLISHING COMPANY LIMITED,
Warburton, Victoria

LACTOGEN

The NATURAL MILK FOOD
For Infants and Invalids

LACTOGEN is a complete food made in Australia from pure full cream milk, modified by the addition of cream and lactose, so as to approximate human milk as closely as possible in nutrition, digestibility, and wholesomeness. It contains no starch products, cane-sugar, preservatives, or any foreign matter, and is the most suitable substitute for maternal milk when such is lacking or deficient.

LACTOGEN is practically identical in composition with human milk, and contains not only the requisite amount of Lactose, but also the full complement of Milk Fat.

ANALYSIS

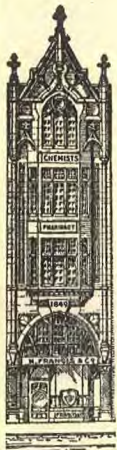
	Lactogen diluted with $\frac{6\frac{1}{2}}$ parts of water by weight	Average composition of human milk
Fat ...	3.13	3.1
Lactose ...	6.38	6.6
Proteids ...	2.80	2.0
Ash ...	0.62	0.2
Water ...	87.07	88.1

WRITE FOR SAMPLE TIN AND EXPLANATORY LITERATURE

THE BACCHUS MARSH CONCENTRATED MILK CO. LTD.

MELBOURNE: 591-9 Little Collins St. SYDNEY: 1 Bond St. BRISBANE: 98 Eagle St.
ADELAIDE: Grenfell Buildings, Grenfell St. FREEMANTLE: 38 Mouatt St.

H. FRANCIS & CO



IMPORTERS OF

Surgical Instruments and Appliances of Every Description, Air and Water Beds, Pillows and Cushions, Hot Water Bottles, Elastic Stockings, Leggings, Knee-Caps, etc. Antiseptic Dressings, Bedrests, Enemas, Bandages, Trusses, Icebags, Sprays, Galvanic Batteries, Thermometers, and Every Requisite for Invalids.

Illustrated Price List, Post Free on Application

**280 BOURKE STREET
MELBOURNE**

Branch Pharmacy, 111 Collins St.

Orders by Post Promptly Attended to

CHEMISTS

BRINSMEAD

THE GREATEST BRITISH PIANO

Sole Agents:

Carnegie & Sons

106 Elizabeth St., :: Melbourne

Brinsmead, Allison, & Squire PIANOS

The Sydney Sanitarium

Wahroonga, New South Wales



THE SYDNEY SANITARIUM, Wahroonga, on the North-Shore Hornsby railway line, is an ideal place to go for health, rest, and wholesome recreation. Delightful scenery, bracing climate, sanitary buildings and grounds, large orchard. Modern equipment for Hydro-Electro- Radio- Photo- and Masso-Therapeutic Applications; also Surgery and Obstetrics. Registered as a Private Hospital. Large staff of well-trained, kindly nurses and attendants. Resident physicians and surgeons. All Non-contagious Cases received.

Rates Very Moderate

Further information from

**The Manager, Sydney Sanitarium,
Wahroonga, N.S.W.**

Telephones

Nos. 137 and 354

Wahroonga



One of the Beauty Spots near the Sanitarium

For **EVERY TABLE
EVERY MEAL**



GRANOSE BISCUITS

Are made from the choicest wheat, which has been so treated that all the nutrition contained in the grain is retained. The starch is perfectly cooked and dextrinised, and ready to be instantly dissolved in the stomach.

Manufactured by the

Sanitarium Health Food Co.

Head Office:

304-308 George St., Sydney



**Free Sample and Price List on Application
Branches and Agencies in every State**