

# Life & Health



SPIRAL REVERSE BANDAGE OF FOREARM  
*(See page 122)*

**WINTER 1918**

MAY-JUNE

PRICE  
SIXPENCE

# Australia's Home of Health

WARBURTON, VICTORIA



**T**HIS 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*

# 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 door way 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!

---

---

# 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"

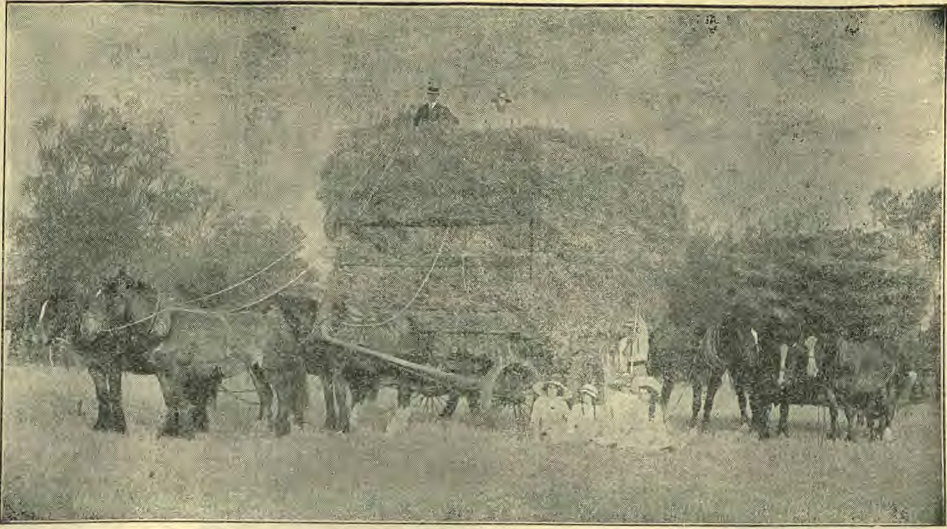
**Flinders Street**

**Melbourne**

**Victoria**

---

---



**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.

# 20th Century Pocket Inhaler

(PATENTED)

Made of Polished Rubber. Strong, Handsome, Convenient

Does not interfere with any other treatment.

Impossible to get out of order

**The only Inhaler adopted extensively by  
Physicians of all Schools**

Use for Coughs, Catarrh of Head, Throat, and Lungs, severe Colds in Head and Throat, Influenza, Headache, Relieves pain in Lungs, relieves Tonsillitis. Protects the Mucous Membrane of mouth, throat, and bronchial tubes. Exceedingly pleasant.

Inhaler Outfit and Medicine for over  
twelve months . . . . . **5/-**

Extra Bottles of Medicine, per bottle  
(post free) . . . . . **1/6**



Closed, Ready for Use. Mouth or Nose

Nose Piece



Mouth Piece, Open, Showing Inner Case

**Address SIGNS PUBLISHING CO. LTD., Warburton, Victoria  
Or our General Agents**

# DO YOU KNOW

What a wonderful help we can be to you with our efficient Country Order Service and our immense Up-to-date Stocks. ¶ It matters not what you want, you are certain to find it here, and at a price too that will yield you a handsome profit. ¶ All you need is to write or wire, stating your requirements; the matter will have immediate attention.

## BALL AND WELCH

PROPRIETARY LIMITED

180-188 Flinders Street, :: Melb.



### A Marvel of Perfection

THE following extract from a letter from Mr. F. B. Watson, of Belgrave, speaks volumes for "Excell" efficiency: "The "Excell" Separator we got from you is a marvel of perfection and gets every particle of Cream from the milk."

The "Excell" is very simple to operate and clean, having no complicated parts. It has proved itself time and again, in all parts of the Commonwealth, to be the best low price Separator on the market. Learn more about the "Excell" right away. Write for: Catalog "E14".

**J. Bartram and Son**  
Pty. Ltd.

586 Bourke St. :: 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., Mfg. & Toilet Specialists  
Dept. D 152 Elizabeth St., Melbourne

# CONTENTS



## EDITORIAL

Tuberculosis or Consumption	<i>W. Howard James, M.B., B.S.</i>	105
Indigestion	<i>W. Howard James, M.B., B.S.</i>	108

## GENERAL ARTICLES

Lobar, or Croupous Pneumonia	<i>J. W. Hopkins, M.D.</i>	111
Defences Against Disease	<i>Daniel H. Kress, M.D.</i>	114
Fat Ornamental, Not Useful	<i>G. H. Heald, M.D.</i>	116
Rebuilding the Disfigured Man	<i>Horace G. Franks</i>	118
Vitamines		120
German Measles		121
Bandaging for Accidents and Emergencies		122

## CHATS WITH THE DOCTOR

Analysis of Coffee, Tea, Cocoa—Displaced Uterus—Rupture of the Abdominal Muscles Paralysis—Exercises—Maude's Questions—Blackheads—Lump, the Size of a Pea Head Noises—Goitre—Indigestion; Constipation; Weakness—Postnasal Growths Cracking of Joints; Stammering—Sore on Lip		123-126
--	--	---------

## QUIET TALKS WITH MOTHERS

Finding the Right Food For the Bottle Baby	<i>Bertha Bellows Streeter</i>	127
--	--------------------------------	-----

## HOME NURSING

Hygiene of the Bedroom		130
Bedsores		132
Apoplexy		133

## THE HOUSEKEEPER

The Finest of Arts		134
The Care of Linoleums and Carpets		135
A Valuable Helper on Wash Day		136
Give These a Trial ( <i>Recipes</i> )		136

## THE CHILDREN'S HOUR

Mosquitoes and a Small Boy		137
Sensible Ned -	<i>Mrs. E. W. Lane</i>	138
At Night ( <i>Poetry</i> )	<i>B. L. S.</i>	138



BREAKFAST TIME IN THE FOWL YARD



# LIFE AND HEALTH

Vol. 8

May-June, 1918

No. 3

Editor: CHARLES M. SNOW

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

FOR food economy's sake and for your health's sake as well, cook your potatoes in their "jackets," whether you serve them in that way or not. In paring them before cooking, essential and important food elements are lost—wasted. Make more of vegetable and fruit salads. Vegetable salads may be made of such cooked vegetables as potatoes, beetroot, carrots, peas, and beans. Materials for uncooked salads include water cress, lettuces, cabbage, radishes, celery, and tomatoes. There are millions to-day who would be only too glad to use these nourishing foods if they could get them. We have them in abundance. Let us use them.



THE open-air movement is accomplishing great things for child welfare. Open-air schools have been started in different places, and much good has resulted to those in attendance. Open-air treatment has proved of the greatest value not only in dealing with tuberculosis and with tuberculously disposed children, but in securing the recovery of other sick children as well, and the building up of large numbers of delicate boys and girls. Let the good work go on in home, in school, and in office. God has given us the air free; let us freely accept it and freely use it and freely thank Him for the splendid gift.

THERE is a little fancy, but a large amount of sobering fact, in the following anecdote told by Canon Wilberforce:—

A little boy in the north heard his father, when he came down to breakfast, muttering and feeling very uncomfortable, as most men feel after drinking over night. "I had a dreadful dream last night," he said, "and I can't get over it. All night long there seemed to be three rats sitting on my chest. One rat was a fat one, one was a thin one, and the other was a blind one."

"Father, I can tell you what that dream means," said the lad.

"You can?" asked the father.

"Yes, I can," he replied. "The fat rat was the publican, the blind rat, father, was yourself, and the thin rat was mother and me."

We consider this interpretation faultless, and the fact which the dream illustrates is the greatest and most unaccountable paradox of the age. The many suffer penury and starvation, and dress in rags, in order that a few may have plenty and wear fine clothes; and government permits the exchange for a portion of the proceeds; and then spends many times what it receives to care for the products of the whisky mills. Surely an educated people will some day cast off the shackles of the drink traffic and manumit the race from a slavery already too long endured.

THE disease of the eyes known as trachoma has become one of the reportable diseases in fifteen States of the United States. Public health officials report that of the 323,000 Indians in America, fully twenty per cent have this disease. There are three hospitals in the one State of Kentucky for the treatment of this affection, which is very rapidly disseminated among school children, and is difficult to eradicate. Because of its contagious nature, it should be made a reportable disease everywhere, and each case should be to a certain extent isolated until cured. Whatever interferes with the sight of the individual interferes with his usefulness, and may make him a burden upon others instead of a help to others. In the interest of the community, as well as of the individual immediately concerned, such diseases should be taken in hand with kindly firmness in the interest of all the people.



DON'T be blue—there's nothing in it worth while. There are those who seem to feel that it is their religious duty to see all there is that is unpleasant or unsatisfactory or unlovely, and then call other people's attention to it. Don't be one of these. Look for the good, look for the beautiful, look for the true. It pays big dividends in happiness, in health, and in the desire of others for your society. The thought is well expressed in the following stanzas, entitled, "Keep on the Sunny Side":—

Be happy, dear, sow happy thoughts around you,  
Let sunshine out, don't keep it bottled in;  
Then every day, with all its loads and worries,  
Will brighter be, and free from care and din.

Be cheerful, dear, and cheer some other body,  
Forget those things that make you feel so blue.  
Listen! The birds are singing in the tree-tops,  
Singing a song of cheer, and gladness, too.

There are some who almost never hear the birds sing. They will hear the raucous caw of the crow, for they fear his depredations in their fields of maize. They hear the owl, and wonder if any of the fowls are roosting in the trees; but

the beautiful songsters that worship their Maker in mellow-throated minstrelsy in the early morn they do not hear. Poor souls! they are missing the elixir of life, and are drinking hemlock draughts from the cup of worry and self-service. Let us banish such beverages; and, with clear minds and happy hearts and a love of humanity welling up in our souls, climb to the higher planes and bask in the sunshine of God's approval while we bless sorrowing souls and find the true joy of life in service for others.



THE following prayer of a famous writer contains petitions worthy of our study:—

"Give us courage and hopefulness  
And a quiet mind;  
Spare to us our friends;  
Soften to us our enemies;  
Give us the strength to encounter  
That which is to come;  
That we be brave in peril;  
Constant in tribulation;  
Temperate in wrath and in  
All changes of fortune;  
And down to the gates of death  
Loyal and loving to one another."

—Robert Louis Stevenson.

The quiet mind is the safe mind. The mind in agitation is never normal, and its impulses are unsafe to follow. The courageous and hopeful mind builds, constructs, opens avenues into the rich fields of future possibilities. Our friends are comrades in endeavour, and so we need them. The criticisms of our enemies should make us more careful, more conscientious, and thus more optimistic of final triumph in any righteous cause we may espouse. We need strength; for so surely as we grow, our burdens will become greater. If cowardly when in peril, we demonstrate our own self-consciousness and selfishness. If we are constant when enduring tribulation, we help to stabilise the world—and it needs it now. And so with the temperate mind, it is needed as never before. The world is in convulsions—let us be moderate, temperate, sincere, and "loyal and loving to one another." In this is health, happiness, and fortitude.

# Tuberculosis or Consumption

## Predisposing Causes and Rational Treatment

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

TUBERCULOSIS, as the term is popularly used, is a broader term than that of consumption, which is generally confined to the disease in the lungs; tuberculosis would apply to the disease in the glands and other tissues of the body as well as that of the lungs.

Tuberculosis, especially the pulmonary (the lung) variety, is an infectious disease, but differs from such diseases as measles, scarlet fever, small-pox, etc., in that it does not cause death by acute toxæmia (actual poisons in the blood produced by the specific germs), but mostly by involving the tissues and destroying them.

In the acute infectious diseases the period of the disease is comparatively short, death or recovery taking place quickly; in tuberculosis the progress of the disease is slow, and recovery or death occurs after a much longer period.

The symptoms which point to consumption are, a cough (especially of a short, hacking character), loss of weight, general debility, feverishness in the afternoon, and cold night sweats. Hæmorrhage, the expectoration of bright red blood, is frequently the first symptom noticed, but this symptom often develops at a later stage. When these symptoms occur and there is a family history of consumption, the diagnosis of consumption is fairly certain.

In almost all cases of pulmonary consumption the special germ causing the disease can be found in the sputum (phlegm) on microscopical examination. As consumption now is a notifiable disease, the Government has made arrangements with the university to examine and report on specimens. For the examination a sterilised glass test tube is employed, the mouth of which should be closed with cotton wool and a cork. This suitably packed can be posted in a registered parcel to the bacteriologist at the university. This, however, is attended to

by the medical practitioner attending the case.

### The Cause of Consumption

Tuberculosis is a germ disease and is produced by a definite vegetable organism, the bacillus tuberculosis, which, when suitably stained, can be readily recognised by its special features. Dr. Kingston Fowler says: "In considering the etiology [cause] of tuberculosis, infection must therefore be regarded as the *causa*



AN IDEAL SLEEPING APARTMENT

*sine qua non*, but it is not necessarily of most importance from a practical point of view. If of a large number of persons exposed to infection only a few acquire a disease, the susceptibility of the individual becomes a factor in causation of greater moment than exposure to infection."—*"The Diseases of the Lungs," Fowler and Godlee.*

It is clear to all authorities, however, that there can be no tuberculosis apart from the specific germ, and also that the disease cannot develop unless the individual's health has been lowered and his fighting powers against the inroads of the special germs lessened. All authorities are agreed that the susceptibility of the individual is of equal, if not of greater, moment than the presence of the actual cause of the disease, the tubercle bacillus.

### From Parent to Child

For a considerable time it was maintained that the germ was never actually

transmitted from the parent to the child, and probably this is generally true. More minute examination of the offspring of tuberculous women and cows has recently, according to some writers, demonstrated the tubercle bacillus in the foetus of a large proportion of cases. Children of tubercular parents need very special care right up to the time of adult life, and even then they are more susceptible unless they are really robust. There is no doubt



INSIDE OF THE IDEAL BEDROOM

whatever about the susceptibility to the disease being transmitted from either or both parents to the child.

#### How Infection is Accomplished

The most usual way in which the tubercle bacillus is transmitted from a tuberculous individual to others is through the air. In coughing there is a fine spray ejected into the air; these particles of moisture contain the germ. Animals have been rendered tuberculous by causing them to be coughed at by consumptive patients. Apart from sunshine and fresh air, the organisms may retain their vitality and virulence from four to six months; on the other hand, however, the tubercle bacillus is destroyed at once if freely exposed to currents of fresh air and sunlight. The most usual way for infection to be carried is through the phlegm on the clothes of the patient, handkerchiefs, carpets, or furniture of the room,

becoming dry; the dried particles are disseminated in the air of the room at the least disturbance of the air and thus carried into the lungs or into food.

The breath of the consumptive, it should be remembered, is not infectious, and where proper precautions are taken there is no fear of infection. This should be specially noted, for it is cruel to treat a consumptive patient as a leper. When the phlegm is caught in a flask containing some disinfectant, and the handkerchief is held over the mouth in coughing, and the patient keeps his or her own towels and drinking vessels to his or her own self, there need not be the slightest fear of infection. Sanatoria, it has been found, do not endanger the health of the communities in which they are placed in the least, and attendants on consumptives where proper care is taken are not more liable to the disease than others.

There has been considerable difference of opinion as to whether consumption is transmitted through animal foods such as milk and meat. Undoubtedly animals are not as susceptible to tubercle bacillus from the human organism as from that of their own kind, and the human being is not as susceptible to the tubercle bacillus from animals as from those from a human patient. It is certainly wise to sterilise all milk about which there is the least doubt. Cooking unfortunately interferes with the nutritive properties of milk.

#### Conditions that Encourage the Disease

There is greater danger of infection among the poor than among the rich. Where the rooms are well lighted with sunshine and well ventilated, the number of germs in the air is not only less, but they are quickly destroyed; and, again, the human system can cope with and destroy a limited amount of infected matter, but infection in a concentrated form overcomes the resisting power of the individual and produces the disease. Any condition, whether internal or external, that lessens the vitality of the individual increases his liability to attacks by germ diseases, and this is especially true of con-

sumption. Heredity is the most powerful predisposing cause, but bad hygienic conditions, sedentary and indoor occupations, physical over-exertion, fatigue, mental overstrain and dissipation, alcoholism, tobacco smoking, and other diseases, all

Shelter from the wind, rain, and cold draughts, is imperative. Fresh air and abundance of it can be obtained without unnecessary exposure. A sheltered verandah or a good airy bedroom with a fireplace and plenty of windows and sun-



A HEALTHFUL PASTIME FOR THE HEALTHY

*J. H. Kinnear, Photo., Auckland*

increase the liability of the individual to attacks of tuberculosis.

#### Treatment

There is no specific treatment for consumption; that is, there is no drug upon which we can rely to dissipate the disease. In consumption particularly we have to remember that it is nature that cures the disease. Whatever improves the general health will help to destroy the germs and eradicate the disease, and everything that lessens the vitality must be avoided if a cure is to be effected. The open air treatment is all-important; abundance of fresh air is an absolute necessity night and day, but this must be obtained with as little discomfort to the patient as possible.

light is preferable in our opinion to a tent. Tents are often ill ventilated, and the discomfort often interferes with sleep. The windows and doors of the bedroom should be open to the fullest extent, but the bed should be placed in the most protected part of the room, for unnecessary draughts must be avoided. A cold atmosphere acts as a tonic, but dampness must be avoided. It is better, however, to have damp air than impure air. Mountainous districts are preferable to the seaside. "It is agreed," says Burton-Fanning, "that the best climate for the disease is one whose air is pure and invigorating, and which tempts the patient out of doors."

Abundance of good digestible food is essential; more food is required than in health. Mostly the increase in the amount of food improves the digestive powers. The weight, if possible, should be kept a little above the standard, but there is certainly no advantage in unduly accumulating the amount of fat in the system. Overweight without plenty of exercise is against recovery. We have known of numerous cases that for a time have put on an enormous amount of fat by forced feeding, but the results are not good. Undoubtedly the best addition to the food is good fresh milk; if this can be obtained from a perfectly healthy cow, fed on good pasture, it is the ideal, for sterilising undoubtedly interferes with the nutritive qualities of milk. Milk supplied in the ordinary way must always be sterilised—brought to a temperature of about 160° F. for from thirty minutes to one hour. A definite quantity of milk should be taken daily, and this may either be taken with or between meals. Two quarts of milk daily can easily be managed by most patients. Three fresh eggs, raw or lightly cooked, should also be taken

daily. The milk and the eggs should be taken in addition to the ordinary meals. With milk and eggs flesh foods are unnecessary. Cereal foods, fruit, and vegetables will make up the main part of the daily menu. Tea, coffee, alcoholic drinks, and tobacco in every form should certainly be avoided. Malted nuts, gluten, and unfermented wine are useful additions to the ordinary diet.

Daily exercise in the open air should be taken, but fatigue must be avoided. Exercise not only increases the appetite, but enables the patient to assimilate the food and form tissue. As much sleep as possible should be obtained; late hours and excitement must be altogether eliminated. Every day without exception the whole body should be sponged with cold water or a cold shower should be taken. Care, however, must be taken to dry the body thoroughly. Woollen clothes should be worn next the skin, but overclothing must be avoided.

Drug treatment is mostly harmful. What is really wanted is an "extraordinary supply of good common sense."

---

## Indigestion

### What Are Its Causes? How May It Be Avoided and Remedied?

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

THE term indigestion is generally confined to the milder cases of dyspepsia or difficult digestion, but the terms indigestion and dyspepsia are practically identical in their significance.

For good digestion good general health is absolutely necessary. The alimentary canal cannot secrete its various digestive fluids in right quantity and quality when the blood from which these fluids are drawn is deficient in quantity, quality, or is the carrier of poisons. It must also be recognised that the nervous system is a great factor in the digestion of food, for it has been clearly demonstrated that every food in health tends to produce exactly the special kind and the right

quantity of digestive secretion necessary for its own digestion. Milk, for instance, causes a much less acid secretion of gastric juice than do flesh foods, and on this account it proves very useful in acid dyspepsia. Starchy foods, when properly masticated, cause a greater supply of alkaline saliva than those which are of a proteid nature. Corned meat and salted foods are very difficult to digest, and with these unhealthy foods the appetite demands such irritants as mustard, pepper, and pickles. These temporarily cause an increased flow of gastric juice, but with continual use will produce chronic inflammatory (catarrhal) conditions. Nature does her best even to

overcome the evil effects of taking those foods for which the digestive fluids were never intended; but unnatural stimulation brings about disease and death. Long life and good health can be the inheritance of those only who live naturally, and those who treat their God-given powers with reason.

The continued partaking of food of difficult digestion will cause disease, but it is

poor general health, and a poor digestion is frequently the manifestation of that disease even before it demonstrates itself by its characteristic symptoms. The consumptive's digestion is improved by an increased amount of food, and so it is with all weakened constitutions; the general health must be built up before the digestion will be normal. Chronic indigestion is frequently rendered worse by



J. H. Kinnear, Photo., Auckland  
A GOOD DIGESTION NECESSARY FOR WORK LIKE THIS

also true that insufficient work will have a similar effect; the arm bandaged to the side cannot develop muscles, neither will the stomach maintain its powers if continually fed on food which has been artificially digested. Work up to a certain point is decidedly healthful.

Many cases of chronic indigestion are hereditary; the child frequently inherits not only the weak constitution of its parent or parents, but also the special type of dyspepsia of its progenitors. One cannot expect a strong heart or robust lungs with a weakened constitution, neither can he have a strong digestion. Good digestion means good health, and good health means a good digestion. Consumption is decidedly a condition of

the continual leaving off of healthy and natural foods because they apparently produce disagreeable symptoms; and in these cases forced eating, eating without an appetite, is necessary for recovery.

All general diseases of the system must be appropriately treated in order to ensure good digestive powers. The anæmic (the bloodless) patient needs iron, and iron will be assimilated from the food when correct amounts are taken with moderate exercise, outdoor life, and healthful living generally. Similarly gout, rheumatism, scrofula, and other general diseases must receive their special treatment before the quality and the quantity of the digestive juices can approach the normal line. Sometimes the digestion is poor, due to

obstructed circulation, resulting from heart, liver, and certain lung troubles, or to the circulation of blood containing an excessive amount of the waste products of the body, as in kidney disease or rheumatism and gout. These conditions again must be treated in order to improve the digestion.

Many medical writers maintain that indigestion is not a disease in itself, but a symptom of some other disease such as we have already enumerated; this is true to some extent, but we are convinced that dyspepsia is frequently the primary trouble. Animals do not suffer from indigestion to any such extent as human beings do, and that is due largely to the fact that nature supplies their food, and that so much of their time is spent in the open air. Domestic animals, however, fed on cooked foods are not only more liable to digestive disturbances, but diseases of all kinds.

It is undoubtedly true that the more simple the food of the human being and the more time he spends in the open air, the more healthy he is and the less he suffers from dyspeptic disorders. One great cause of indigestion is the too great variety of food and too many ingredients in the one dish. Variety is good to a certain extent, for it enables the system to select what it requires. There should be a variety in the meals, but not too many varieties, nor should the dishes be too complicated at the one meal. Milk is good, eggs are good, sugar is good, but such cannot be said to be true of a mixture of eggs, milk, flour, baking powders, and the other ingredients so often found in the one dish. A good cook can make a tasty dish without recourse to so many ingredients. Too free use of fats of any kind and the use of baking powders are responsible for many disturbances of the digestive functions.

It should be remembered that fat is digested neither in the mouth nor stomach, and that when starchy foods are surrounded by a thin layer of fat, they are not acted on by the digestive juices until they reach the bowel, and thus the warm, moist condition met with in the stomach

will cause rapid and undesirable changes. Hot buttered toast and scones or butter with any hot dish is thus liable to upset digestion, producing flatulence and acidity from the development of foreign acids.

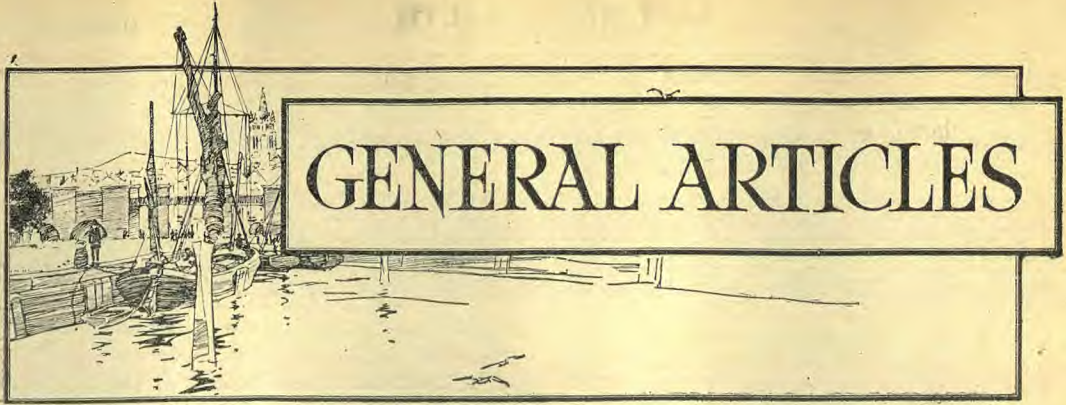
Fat in its natural condition is much more readily digested than in a cooked form; in its natural condition it exists as extremely small microscopic particles. In the cooked state these globules run together and form free fat. Fat is necessary for health, especially in cold climates and during cold weather, but it should be used without being cooked.

Insufficient mastication of food is another fruitful cause of poor digestion. The teeth are made to be used, and the stomach cannot do what the teeth should have done. Coarse, slowly digesting particles of food in the stomach must necessarily cause trouble.

The almost universal custom of taking drinks such as tea, coffee, cocoa, and alcohol is productive of a very large proportion of the cases of indigestion; these drinks lessen the action of the digestive juices, render the food harder to digest and to be assimilated, and have also a bad effect on the nervous system. Leaving off tea, coffee, and cocoa will produce wonderful results in most dyspeptic troubles. The free use of cane sugar is also injurious, for this ingredient of our food is not acted on till it reaches the intestine, and its delay in the stomach is frequently accompanied by unfavourable chemical action.

Eating while in a state of fatigue is also harmful. In this condition the nervous system is exhausted, and the walls of the stomach and alimentary canal are poorly supplied with blood, and both of these conditions are unfavourable to good digestion. Hot and very cold drinks, eating too frequently, eating between meals, violent exercise or sleeping after meals, late suppers, badly cooked or fried food, pastry, use of condiments, excess of salt, pickles, and sauces, mental worry, care, anxiety, sexual abuses, alcoholic drinks, and tobacco must undoubtedly be included in the causes of indigestion.





## GENERAL ARTICLES

### Lobar, or Croupous Pneumonia

J. W. HOPKINS, M. D., in "American Life and Health"

THIS is a general systemic infection which may occur at any time of life, and which has a pulmonary localisation. The active cause in the great majority of cases is the pneumococcus. There is no immunity produced by the disease, one attack making the patient more liable to recurring infection. Nature's defenses may be lowered in other ways as well, the most common being by alcoholic intoxication. This accounts for about twenty per cent of the cases of pneumonia. The mortality is also very much higher in alcoholics.

Another predisposing cause is loss of sleep. Sleep has been described as nature's sweet restorer, and it is certain that loss of sleep squanders vitality very rapidly, much faster than it is stored up. During the sleeping hours nature is most active in regenerating the tissues, and the person who deprives himself of sleep makes himself a prey to many diseases.

The pneumonia germ is almost always present in the mucous membrane of the respiratory tract. Exposure to cold and wet often paves the way for this disease. Wet feet, caused by thin-soled shoes, or the failure to wear rubbers, chills the feet and lowers the vitality of the lungs through the accompanying congestion. This condition is also brought about by improper clothing of the lower limbs. Thin stockings and insufficient under-clothing allow chilling of the lower ex-

tremities, while furs and wraps around the neck lower the resisting power of the tissues there, and a cold often follows. It is not unusual to see a notice like the following in the newspaper: "A severe cold, followed by influenza and pneumonia, was the cause of the death of the Honourable Mr. Blank."

The majority of cases of pneumonia occur in the winter and spring months. While exposure is a great factor in paving the way for this disease, there is no doubt that dietetic sins are also prominent factors. At Easter and Christmas the diners as well as the turkey are stuffed, and they pay dearly for their gormandising in the resulting toxic condition which lowers the vitality of the body and invites the pneumonia germs to attack them in overwhelming numbers. This is a hint as to the treatment of the disease, and suggests to us that the diet should be light and easily digested.

Another cause is the dirty-air habit. Persons who would not drink water in which another has bathed his hands, will breathe the air in which many others have washed their lungs and blood, and which contains organic waste and refuse from the tissues, being high in carbon dioxide content and low in oxygen. If you will watch your breath on a frosty morning, you will see the wide distribution of the air as it is expelled from the mouth. This shows that fairly close contact with those

who have colds makes infection almost inevitable.

The symptoms of pneumonia are these: The onset is sudden, with a chill, pain in the side, rapid rise of temperature, rapid and difficult breathing, cough, with rusty or blood-tinged sputum, and a toxæmia which is variable and manifested by circulatory and nervous phenomena, as flushing, or cyanosis, of the skin, and delirium. These symptoms continue from five to ten days, and then, in most cases, the temperature suddenly falls and convalescence sets in.

The above symptoms mean the serious involvement of the lungs, and are an



ONE FORM OF LIFE IN THE OPEN AIR

emphatic indication that the individual should go to bed and put himself under the care of a physician. No layman should attempt to take the responsibility of treating a pneumonia case alone and unaided. It should have the supervision of the best physician that it is possible to obtain.

The earlier symptoms which indicate the coming of the disease are chilliness, tightness across the chest, slight cough, and a tendency to feverishness. These conditions may be treated by the layman, and, if taken in this early stage, the disease may be aborted.

The best treatment is prophylactic, or preventive. Alcoholic drinks should be absolutely avoided, as should flesh foods, fish, fowl, tea, coffee, and tobacco, as

these articles lower the resistance of the digestive system and of the whole body, and render the individual more likely to be overcome by disease.

The diet should be very nutritious, and should include much green stuff, as celery, lettuce, and spinach. These foods furnish many mineral salts, which feed the blood and nervous system. They also help to regulate the bowels. An occasional dose of mineral oil should be taken at night or an hour before breakfast; or the bowels should be periodically cleansed by a mild saline laxative or by cascara.

Overeating lowers the vitality of the body, even if the food taken is clean and pure. Surfeiting and gluttony are antagonistic to good health.

The fresh-air habit should be cultivated. One should live in the fresh air as much as possible, and should endeavour to sleep where there is plenty of fresh air, as on the sleeping-porch. The habit of deep breathing will give vigorous lungs. The morning cold bath, with especial attention to sponging the chest and throat with cold water, will har-

den the skin and the mucous membranes of the respiratory tract, and help to throw off disease.

It is important to avoid the patent medicine habit and the taking of cough cures, as these lower the vitality. If all colds were taken in the early stages, the incidence of pneumonia would be lowered. Colds should be treated early by rest, warm baths and sweats, proper diet, and the inhalation of steam from boiling water containing a few drops of a mixture of equal parts of thymol, menthol, and eucalyptol. The throat should be swabbed with a ten-per-cent solution of argyrol, or the nose and throat should be sprayed with a saline solution or with warm witch-hazel, then with an oily spray of camphor and menthol.

In the active treatment of disease, fresh air is a great factor in producing a cure. The patient should sleep out of doors, the bed being first prepared by putting a rubber sheet and a woollen blanket over the springs under the mattress, and then folding them over the mattress. The patient should sleep between blankets, and should be covered well, having a sleeping-cap on, and a hot-water bag at the feet. The chest, neck, and shoulders should be protected, as chilling of these parts is detrimental. The patient should be kept out of doors as much as possible. The bowels should be kept regular by mild laxatives or by enemas. Cooling enemas may be given to reduce the fever. Many physicians prefer not to make any local applications to the chest, simply using the cotton jacket. Others recommend mustard plasters, or hot applications of antiphlogistin or other clay poultices.

Fomentations to the chest, or hot and cold applications may be used, or turpentine fomentations may be applied to relieve either the pain or the congestion. This congestion, however, is better relieved by the hot hip-and-leg pack applied once or twice a day, followed by a saline sponge bath or a cold mitten friction. This treatment draws the blood from the head and chest to the lower extremities. It has an effect similar to bleeding, but it retains the blood in the patient's blood vessels.

The diet should be nonputrefactive, and should be less than the minimum amount required in health. It will thus be seen that beef teas and meat juices are excluded. Cereal gruels, whey, milk, peptonised milk, junket, and eggs in various forms may be used. In the severe stages of the disease the diet should be liquid and given in small amounts. The use of alcohol in pneumonia is not necessary; is not needed either as a food or as a medicine. Alcohol lessens the capacity of the blood to carry oxygen, and cripples the white blood corpuscles in their fight against the pneumonia germs. The diet should contain plenty of sugar and salt; the former to serve as food and fuel, and

the latter to take the place of the salt which is taken up in the lungs by the disease.

The medical treatment should be left entirely to the physician, and the above treatments should also be under his supervision. An ice cap to the head will relieve the headache and be very comforting. Camphor does very well, both by stimulating and supporting the heart, and by its direct action upon the pneumonia germs. The period of convalescence should be reckoned to cover at least six months, and if care is given during this time, the liability to heart and nerve tire and disease will be lessened. The heart and nerves need repair as well as the lungs. Pneumonia is a serious proposition to deal with. It causes more deaths than does any other disease. It has no specific treatment, but with careful attention to the symptoms as they arise, its mortality may be very greatly lessened.

---

THE proportions of the human figure are strictly mathematical. The whole figure is six times the length of the foot. Whether the form be slender or plump, the rule holds good, and any deviation from it is a departure from the highest beauty in proportion. The Greeks made all their statues according to this rule. The face, from the highest point of the forehead, where the hair begins, to the chin, is one-tenth of the whole stature. The hand, from the wrist to the tip of the middle finger, is the same. From the top of the chest to the highest point of the forehead is a seventh. If the length of the face, from the roots of the hair to the chin, be divided into three equal parts, the first division determines the place where the eyebrows meet, and the second the place of the nostrils. The height from the feet to the top of the head is the same as the distance from the extremity of the fingers when the arms are extended.—*Selected.*

---

“HEALTH and cheerfulness mutually beget each other.”

# Defences Against Disease

DANIEL H. KRESS, M. D.

GERMS are seeds. Seeds must have soil for growth. Disease germs do not flourish in healthy tissue any more than they do in clean back alleys exposed to sunshine. They require the same conditions within the body that favour their growth on the outside. Many men and women carry within them germs of tuberculosis, typhoid fever, diphtheria, and so forth; but so long as the body tissues are kept clean and free from impurities, the germs can do little or no harm. A healthy body is germ proof.

Should organic impurities, for some reason, accumulate within the body, and the vitality of the tissues thus be lowered, tuberculosis, pneumonia, and other diseases may at any time develop.

## Gateways of Germs

Sunshine and pure air are the greatest aid in maintaining pure blood and building up the defenses of the body. Clean, nourishing food, rightly combined, with moderate exercise daily, also aids in building up and maintaining the bodily defenses. While impurities may gain entrance to the body through the lungs, the chief gateway is probably the alimentary tract. Impurities in the food pass directly into the circulation. Impurities may also be formed within the alimentary tract, through the fermentation and putrefaction resulting from dietetic errors.

A microscopical examination of the contents of the colon reveals a great number of germs. It has been estimated that the number daily thrown off in the excreta of one who feeds on the ordinary mixed diet reaches, in some instances, considerably over one hundred billion. Fortunately, many of these organisms are not harmful; but others of them are of a dangerous nature, capable of producing poisons that are destructive and deadly. Many diseases that a few years ago were little understood, we now know to be due to the poisons developed in the ali-

mentary tract, not in sufficient quantities to prove fatal at once, but in sufficient daily quantities to bring about serious functional disturbances of the organs of the body, and gradually structural changes of the same.

Arteriosclerosis, or hardening of the arteries, is frequently brought about through the constant irritation resulting from poisons absorbed from the intestinal tract.

## "Friendly Germs"

Recognising that some bacteria form poisons which are highly injurious, while the products formed by others are not, and that certain less harmful bacteria tend to decrease the growth of the more harmful ones, the plan has been devised of introducing into the alimentary tract the less dangerous bacteria, or so-called "friendly germs," for the purpose of prohibiting the growth of the more deadly ones that may be introduced in the food or the drink.

Certain peasants of Bulgaria, it was found, who were noted for their longevity, lived almost exclusively on bread and sour milk. Naturally, long life and sour milk were associated. An analysis of the milk showed the presence of lactic acid bacteria. These excreted an acid that interfered with the growth of the germs of putrefaction.

## Food For the Germs

There are certain foods which favour the growth of the more dangerous bacteria in the intestines. At the head of this list of foods are meat and fish. Ordinary animal fats also increase the intestinal putrefaction. Dairy products, as butter and cream, favour their growth. Any substance that forms a good medium for the growth of bacteria outside the body will, under favourable conditions, favour their growth within the body. The highly proteid foods, especially if of an animal nature, readily decay.

When meat is given up, there is no necessity for substituting other highly nitrogenous foods. In the past, a mistake in this respect has been made by many of those who have discarded meats from the dietary. In the grains, with a moderate use of legumes (peas, beans, and lentils) and fruits, the food elements are arranged in about the right proportions for the needs of the body.

#### Olive Oil

Many wholesome fats may be substituted for butter and cream. Among free fats, none is superior to olive oil. For consumptives, or the emaciated, olive oil will be found far superior to the cod-liver oil preparations so highly recommended. Olive oil does not contain germs, neither does it become rancid so readily as does butter. Those who do not relish the flavour of olive oil can get rid of the peculiar taste by heating the oil. With a little perseverance, olive oil will soon be relished.

Cottonseed oil may be used. Nuts, as almonds, pecans, and English walnuts, are rich in fats, and are not difficult to digest if well masticated. Raw vegetables, as lettuce, celery, cabbage slaw, and carrots, prevent putrefaction.

The digestive tract in health is furnished with more or less efficient methods of defense against bacterial invaders. The normal gastric juice provides a degree of acidity which is destructive to most varieties of germs.

#### Hot Weather and Worry

In hot weather, there is a general relaxation of the system, and naturally the digestive juices are diminished in quantity and quality, and bacterial growth is encouraged. Worry has a similar influence.

A healthy digestive tract will not merely lessen the growth of bacterial life, but will not permit micro-organisms to pass through its walls.

Shortly after death, the bacteria formerly inhabiting the intestines may be found in the blood and the tissues. Intestinal bacteria are capable of penetrating the walls of the intestines of a dying organism. They may also gain entrance into the blood and the tissues when for any cause there is lowered vitality of the intestinal walls.

Typhoid fever, tuberculosis, pneumo-



HEALTHFUL WORK IN CLEAN DIRT

nia, and other bacteria may be harboured in the intestinal canal for months, or even years; and at a time when there exists lowered vitality, induced by colds, influenza, warm weather, worry, fear, fatigue, or other causes, these organisms may, through the temporary cell infirmity of the intestinal walls, gain entrance into the general circulation.

#### Punctured by Worms

Intestinal worms may also play a part in intestinal inoculation and infection. Just as the mosquito is capable of conveying the plasmodia of malaria to human

subjects by puncturing the skin, and as bedbugs may convey the germs of tuberculosis, so these intestinal parasites may open a gateway through the walls of the intestines for the entrance of the typhoid bacteria, germs of tuberculosis, and so forth, by puncturing the intestinal walls.

Germs entering the system through the intestinal walls develop usually at the point of least resistance. The lungs, from excessive elimination of poisons, and from the inhalation of impure air, afford the most favourable point for the growth of the germs of tuberculosis and pneumonia.

In auto-intoxication of intestinal origin, the skin is frequently anæmic, dry, and inactive. Internal and visceral congestion exists. The person takes cold from the least exposure to draughts. General treatment should aim at equalising the circulation by bringing the blood to the surface and fixing it there, thus relieving internal congestion. Hydrotherapy, massage, sun baths, air baths, and friction to the skin may all be employed with excellent success.

#### Putrefactive Foods

The aim of the diet should be to make the intestinal culture media less favourable for germs. It will be necessary to avoid foods that favour putrefactive changes, such as meats, animal fats, and in some cases even butter.

Well baked or dextrinised carbonaceous foods and fresh fruits form the best foods for such cases. After a time, legumes may be added to this diet. Eggs also may be added later. In severe cases, clotted milk, kumiss, or buttermilk may be used for the purpose of antagonising the germ of putrefaction.

The aim, however, should be to secure, as far as possible, a condition of the alimentary tract which discourages putrefaction. Drinking with meals, or the free use of liquids of any kind, favours putrefaction. It would be better to have one meal composed of solid foods, requiring thorough mastication, and then, if desired, have the next meal composed of liquids,

rather than use liquids freely with solids at the same meal. Dry foods stimulate the flow of the saliva and the gastric juice, and also favour absorption, thus tending to prevent putrefactive changes.

The use of fresh, subacid fruits at the close of the meal is beneficial. In cases of extreme dilatation of the stomach, the fibrous portion of fruits such as apples and cherries should be rejected, and merely the juice should be swallowed. The acid in these fruits is destructive to germs of putrefaction. They should be eaten at or near the close of the meal, so as not to interfere with the starch digestion.

#### Fat Ornamental, Not Useful

G. H. Heald, M.D.

THERE is a very general belief that one who is sleek and well rounded out is in a much better physical condition than one who is spare. "Laugh and grow fat" was a maxim conveying the generally received impression that a cheerful temper increases the adipose layer, and that a well-rounded physique tends to increased usefulness and long life. It was admitted that there might easily be an extreme of fat which was undesirable, but a certain fullness of the figure was admirable from an æsthetic point of view and very convenient from a health standpoint. We have had fat people anxious to reduce flesh, but we have also had many of comparatively spare build who were proud if they could succeed in rounding out more in a stream-line effect.

Now we have the testimony of life-insurance experts that even very moderate amounts of adipose may shorten life. Years ago, height and weight tables were made out from insurance statistics based on the average weight at the various life periods. It was assumed that the average weight of all these figures was the normal. But more recent study of the longevity of individuals of different weights reveals the fact that a person of average weight has a shorter life expectancy than one who is ten pounds under-

weight. That is, the average person carries ten pounds too much fat for his own good.

The following figures which are furnished by the American Life Extension Institute and embody the experience of forty-three American life-insurance companies, show that as the death rate increases with the increasing use of alcohol, so it increases also with the increase in weight:—

Ages: 45 to 49.  
 Heights: 5 feet 7 inches to 5 feet 10 inches.  
 (Height and weight taken with coat and vest off, and in shoes.)

Average weight ...	Per cent higher death rate than at 10 lbs. under the average weight
5 pounds above average weight ...	4
10 " " " " " " ...	8
15 " " " " " " ...	12
20 " " " " " " ...	18
25 " " " " " " ...	22
30 " " " " " " ...	26
35 " " " " " " ...	32
40 " " " " " " ...	40
45 " " " " " " ...	49
50 " " " " " " ...	55
55 " " " " " " ...	60
60 " " " " " " ...	65
65 " " " " " " ...	71
70 " " " " " " ...	78
75 " " " " " " ...	85
80 " " " " " " ...	92
85 " " " " " " ...	100
90 " " " " " " ...	110
95 " " " " " " ...	120

The excess weight between the ages of thirty-five and fifty-five causes most serious effect. The twenty million people in these age periods could give up with much profit to themselves two hundred million pounds of fat, an amount equal in energy value to nearly seven hundred million one-pound loaves of bread.

It has been suggested that it might be a double benefit to send this surplus fat to Europe.

But how is one to send his body fat to Europe? The Europeans are not cannibals, even if we were willing, Shylock-like, to cut out the pound or five pounds or fifty pounds of "flesh" necessary to reduce us to a healthful weight. The reply is easy. No one lays up fat unless he is consuming more calories than his body can profitably burn up. Now please

do not get angry and protest that you are a light eater! Perhaps you are; but if you are overweight, you need to reduce your eating. Eat more green vegetables and citrous fruits, and less of potatoes, cereals, bread, and of all kinds of fat. Cut them down severely. Most persons are too heavy simply because their appetites *will not* be reasoned with. One way to reason with the appetite is to cut out all desserts *absolutely*. Let them be taboo. Reduce your cereals and breads, and especially your candies and sugars and fats, to a minimum. It will mean hard work, but the effort may be worth the while, for not only will you be adding to your own life expectancy, but you will also be saving unnecessary expenditure of means.

As has been suggested, the man who is forty pounds overweight carries on his body the energy equivalent to 135 one-pound loaves of bread. Why should not the Food Administration get after such persons as food hoarders?

It is a mistake to think that good food material prepared in "just any way" and served in "just any way" is necessarily good food. To secure the best results, even from good food material, it is essential that it be well prepared and tastefully served. Palatable food that gives real pleasure in the eating leads also to a more abundant secretion of the gastric juice, and to that extent actually improves the digestion. We do not always give sufficient consideration to the need of making food attractive and varied. Some give too much thought to it—but that is the other extreme. But lack of variety may have its evil results as well as too great a variety, especially when that stunted variety is served in an unattractive manner. We would never advocate a table service that would encourage "stuffing" either children or adults with food they do not need; but rather that they should not be turned away from food they do need by unappetising cookery or table service.

# Rebuilding the Disfigured Man

## War Surgeons and Their Marvels

HORACE G. FRANKS

IN all respects, this great European war is the most awful and destructive campaign that has ever engaged the attention of the nations of this world. The tremendous cost in money is enough to make the whole world stagger,—and undoubtedly it will do so for a time,—but its cost to the nations in blood and brains is a loss which Time itself could hardly repair. But with the coming of the war, the surgeons of the fighting nations have made what might be termed tremendous leaps, rather than rapid strides, and are now actually rebuilding the faces of men who have been totally disfigured by shells. To provide artificial legs and arms has been made an art, it is true, but to make a new nose grow from a piece of a man's rib is medical surgery at its greatest perfection. In order to give our readers an insight into the marvels of this "plastic surgery" we reprint herewith an article written by Mr. Arthur Mason after a personal visit to the hospital in England which performs magician-like actions by giving new men in exchange for old.

"At Sidcup, in the county of Kent, there is a war hospital which is assured of distinctive fame, even though the war hospital of to-day is universal and its relief of suffering a very miracle of beneficent achievement. To say nothing of the preventive effort of medical science, by means of which tens of thousands of lives have been saved to the British army, the surgery of war time is accomplishing a work whose value cannot yet be measured, and perhaps is immeasurable. And it is the surgery of war time, in one of its branches, that is so successfully active at this hospital of Sidcup—specialised surgery, concerned solely with men who have suffered facial wounds.

"Facial wounds are necessarily among the most distressing of all the varied hurts of war. They are rarely less than dis-

figuring, and very often they are disfiguring to the point of shocking unsightliness. More than that, they are usually wounds which, directly or indirectly, have injurious effect upon the functions of vital organs. The surgery intended to relieve them employs itself, therefore, not only with the repair of facial deformity, but also with such restoration of the injured parts as will assure to the body as a whole its normal health and vigour. . . .

"Major H. D. Gillies, R.A.M.C., who is in charge at Sidcup, and the staff assisting him, are of that quality. They have in their care some 590 patients, of whom 150, more or less, are not in residence, but await on furlough—though under supervision—the operations that are the next stage in their relief. To the mere layman, even a glimpse of its work such as was recently allowed reveals unthought-of and almost incredible wonders of surgical science.

"The patients are very fortunate in respect of surroundings. The hospital wards and accessory offices are built up in a series of airy and admirably lighted huts spread about the grounds of a large country house, while the walks abroad available to the convalescents are of typically Kentish charm. The visitor may, as he prefers, see the patients themselves and their injuries, or photographs of patients at progressive stages of their treatment, or masks and models of the injured faces as they were first presented for that treatment. There is, for example, in one corner of the hospital a little museum. Hung about its walls are plaster casts, and water colour drawings from life, of wounded faces, and within its cabinets are faces modelled in wax with all their injuries plain to see. It is not a pretty display. On the contrary, it is rather gruesome—and for that matter the whole array of what is to be seen at this Sidcup hospital will distress the visitor until he is able to



set against the pitiful ugliness of this aspect of war the ministering agency of the surgeon's work upon it. In the light of that, he will begin to bear the shock, to look without shrinking upon these pathetic distortions of the human features, and to think less of the wounds which are their cause than of the skill which so amazingly heals and hides them.

"The nose, the mouth, the jaws and the cheek surfaces suffer grievous hurt in

solved without any manner of doubt. And this is the way of it.

"As a first step, measurements are taken and models are made which determine the shape and size of the restoration called for, and the surgeon begins to work upon the damaged tissues, preparing them by operation for efficient contact with the surface covering of the nose to come. That repair of the tissues is more or less familiar surgery, but at Sidcup it is a



A MAORI BOATING CREW

*J. H. Kinnear, Photo., Auckland*

the battles of to-day. Here is a typical case—that of a nose wound, the bullet inflicting which has torn most of the feature from the face, and has left in its stead a rather dreadful wreckage. The staff at Sidcup, however, see the injury as one eminently suited to the magic they call plastic surgery. By virtue of plastic surgery they will make a nose for that now almost noseless face. The marvel to be wrought will need time—perhaps a year, perhaps eighteen months. It will be a matter also of delicate operations, the number and scope of which only the progress of the case will reveal. But the problem set—the provision of a new nose—will be

matter of infinite variety and exhaustive and often novel methods. And as for the actual provision of a nose, that is a wholly new marvel of the healing art. It is quickly in being, nevertheless. From the man's rib is removed a spread of cartilage equal to the measurements already taken—removed from his rib and grafted upon his forehead, and shaped and fashioned there with due regard to the model already made. And from each cheek a flap of skin is lifted and attached by one end to the transferred cartilage, its other end remaining affixed to the face. The cartilage, built into due shape, is now a nose merely out of position. It is left to grow

upon the forehead until the tissues awaiting it are healed, and then, when all is ready, it is lifted again, drawn down by the flaps of skin and fitted carefully into the place where it should be. Other magic is wrought upon it by way of finishing touches, and the scars upon the forehead and the face are excised by grafting and by massage. The scar upon the body already has vanished, but in any case was of no great moment. The surgeon's triumph—and the patient's—is in the fact that a nose has been provided, and that the contour of the face has been restored.

“Jaw injuries are more serious and often are very complicated, almost always, indeed, needing the closest care of the dental specialists whose task it is to build anew upon the ravage of bone and tissue confronting them. The dental department is necessarily one of the most important centres of the work at Sidcup, and every possibility of jaw injury is known there and assured of highly expert attention. A typical jaw patient is a man whose wounds are a matter of disastrously cut and torn flesh, and lost or fractured or splintered bones. Apparently, the mouth is ruined. The line of the face is destroyed seemingly without hope of repair. But the surgeons are soon at work, the X-ray disclosures are read, the operations begin, and the shattered framework of the jaw is restored by graftings of bone and tissue and by mechanical supports—palate plates, vulcanite splints, biting flanges, etc. Then, with the foundation firmly laid and the functions of jaw and teeth once more efficient, the exterior miracle is wrought, the miracle of plastic surgery with its grafts and flaps and all the magic of its healing and concealing.”

Thus, surely though slowly, science and patience prevail, deformity and ugliness give place to presentable contours, and one more sufferer is transformed and restored.

What next we shall hear of in this direction, it is not safe to prophesy, but undoubtedly when the war is over and the story of the doctors is told, the whole world will be astonished at what science can do to relieve the sufferings of man.

## Vitamines

[AN exchange publishes the following interesting article on the above subject, a subject which is receiving much consideration now from both dieticians and government food controllers. Attention to its sensible suggestions will well repay our readers.—Ed., L. & H.]

THIS is the name that we apply to certain constituents of food, the actual composition of which we do not know, which are present in minute quantities, but are absolutely essential to health. When they are absent from the food that we eat or present in insufficient amount, the nutrition is at once affected, and if we do not change our food a condition of disease is established that may lead to death. Physicians call the conditions that result from a lack of vitamines deficiency diseases. Among the affections believed to belong to this class are scurvy, beriberi and pellagra. We suppose that there are a number of these vitamines the absence of which causes disease; the lack of one for example, causes beriberi, the lack of another pellagra, and the lack of still another, or perhaps of several, causes scurvy. Physicians also suspect that abnormally slow growth in young children is owing to a lack of vitamines.

There are vitamines in many, if not in all, of our natural foods, but we often destroy them in the process of preparing the foods for the table. Rice, for example, contains vitamines in sufficient quantity to maintain health, but it is present on the surface of the grain, and the process of polishing removes it. An exclusive diet of highly polished rice will cause beriberi—a disease of the nerves marked by pain, paralysis, stiffness of the muscles, and occasionally dropsy.

Long-continued boiling will destroy some, if not all, of the vitamines, and it has been suggested, although not as yet proven, that prolonged cold storage will do the same. They are present in milk, in fresh fruits and vegetables, and in yeast. Although grains contain them, some of the foods prepared from grains,

such as white flour and some of the breakfast cereals, do not. They are in the outer coats of the grain, and so are found in whole wheat flour and in bran. White bread is nutritious, but an exclusive diet of it would not preserve health.

Children who suffer from a lack of vitamins do not gain in weight, sleep poorly, and are troubled by sweating of the head and irritability. The appearance of those symptoms is a warning to look to the diet. In order to ensure the proper amount of vitamins, the child's food should consist largely of fresh fruits and fruit juices, fresh vegetables and salads, whole wheat bread, coarse corn meal, milk, butter, and eggs. In most canned foods the vitamins have been destroyed by heat, but they are present in dehydrated vegetables that are dried without excessively high temperatures.

---

### German Measles

"It is a strange coincidence of nomenclature," says the editor of the *Youth's Companion* (Boston, Mass.), "that from the time of our acceptance of the war thrust upon us by Germany the disease known as German measles has been unusually prevalent in this part of the world. Fortunately, it belies its name, for it is a very mild affection with nothing about it that suggests *Schrecklichkeit* (frightfulness.)"

"It is an acute, eruptive fever of childhood, distinct from measles and scarlet fever, yet resembling both in some of its characteristics. Although it is called a children's disease, it not infrequently attacks adults who have not had it in early life. It is extremely contagious, although some time—even two or three weeks—may elapse after exposure before the first symptoms declare themselves.

"Were it not for the eruption, many children would pass through an attack of German measles unawares, for the slight feeling of discomfort and the fever might readily be attributed to a cold or to a slight digestive upset. The first symp-

toms are those of a cold: sneezing, redness of the eyes, a nasal discharge, and chilliness. The fever seldom runs above 100° to 101°. There is usually an enlargement of the glands on the sides of the neck and at the back just below the skull, where they may be felt as hard lumps the size of buckshot; in some cases also the disease affects the glands in the armpits and in the groin. The enlargement of those glands brings no pain, and promptly subsides with the disappearance of the eruption or even before it.

"The eruption appears about the second day in the form of pink or pale-red, slightly raised spots on the forehead and behind the ears; in the course of from twelve to twenty-four hours it spreads to the chest, the body, and the extremities. It lasts from two or three days to a week, and disappears in the same order as it came, leaving in most cases a few bran-like scales, which soon drop off. Very seldom are the symptoms more severe than we have described, and the only danger of the disease is that it may be mistaken for measles or scarlatina, or *vice versa*. The diagnosis at times is extremely difficult.

"The treatment, as may be supposed, is virtually nothing. If there is fever, the patient should be put to bed for two or three days, and kept in the house, or at least away from other children, for ten days or so. It will do no special harm if other children do catch the disease except for the trouble that the care of them may give and for the interruption to school work."

---

It is well known that the modern mechanical laundry methods are very hard upon linen, and collars or cuffs soon have a rough edge which irritates the skin, even though scarcely visible to the eye. To avoid this it suffices to run over the edge a small rod having a suitable groove near one end, so as to flatten down the rough edge. A neat Paris device embodies this idea and also another useful one, for the pointed end of the rod serves as a button-hole opener.

## Bandaging for Accidents and Emergencies

AMONG the various kinds of accidents and emergencies with which the amateur surgeon may be called upon to deal, there is a very large proportion in which the affected part of the body needs to be supported, protected from the air, or covered with some sort of dressing; so that almost all those who attempt any sort of first aid work have occasion, at one



SPIRAL REVERSE BANDAGE OF FOREARM

time or another, to make use of whatever knowledge of the art of bandaging they may have acquired. It may seem a very simple matter to bandage a wound or support an injured arm, but an ill-fitting sling or an improperly applied bandage is about as comfortable as a shoe of the wrong size or shape, and may even do harm instead of good. A careless bandage over a wound, which allows displacement of the dressing below, may result in wound infection; a too loose or too confining first-aid sling for a broken arm may turn a simple fracture into a compound or impacted one; while a roller bandage applied too tightly may stop the circulation, and even cause death of the constricted part.

Bandages are used principally to keep dressings and splints in place, to support injured parts of the body, to protect wounds from the air and from infection, and as temporary applications in stopping hæmorrhage. The most common forms, and those best suited to the use of the amateur, are the triangular and roller bandages.

Roller bandages can be made by tearing long strips from old sheets or new muslin, or by cutting strips from cheesecloth, and then rolling them, but they can be bought almost everywhere ready for use. Those made from gauze have been sterilised by heat and sealed up in paper wrappers; they are especially valuable for use in any form of injury where the skin has been broken, and it is important to prevent the entrance of germs.

The principal ways in which the roller bandage is applied are the simple circular and spiral turns, the spiral reverse, and the figure-of-8. The circular bandage is one applied about the neck like a collar, or about the wrist like a cuff, each turn of the bandage entirely covering the preceding one. The spiral consists of a series of turns in which each partially covers the preceding one, but advances higher up on the limb. This form of bandage is useful for the fingers and where only a small portion of a limb is to be covered, but, owing to the impossibility of making spiral turns lie smoothly where the part to be covered is larger at one end than at the other, in most locations the simple spiral has to be combined with the spiral reverse. In bandaging the arm, after a few simple spiral turns above the wrist, the reverse may be employed, resulting in a smoothly fitting and tidy looking bandage. The reverses should be in the middle of the outer surface of the arm; at this point the bandage should be sharply turned over upon itself, underside out, the thumb of the left hand holding the lower part of the bandage in position, while the right hand doubles it over. Each reverse should be exactly above the one below it.

# CHATS WITH THE DOCTOR



**NOTICE TO SUBSCRIBERS:** All questions for this department must be addressed to the EDITOR, "LIFE & HEALTH," WARBURTON, VICTORIA. 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.

## 143. Analysis of Coffee, Tea, and Cocoa

"C.C.A." (W.A.) asks for some analyses of coffee, tea, and cocoa from a recent authority.

*Ans.*—We will give some analyses from Robert Hutchison's work, "Food and the Principles of Dietetics."

Caffeine and tannin in teas, ordinary teacup of tea infused in the usual way:—

TEA	Caffeine Tannin	
	Grains per tea-cup	
Ceylon Pekoe ...	1.21	2.18
Fine Darjeeling ...	1.05	2.58
Common Congou ...	1.14	
Moyune Gunpowder (green)	0.99	4.20
Imperial Gunpowder ...	0.90	3.49
Household Blend ...	0.89	
Young Hyson ...	0.84	3.72
Fine Moning ...	0.78	0.89
Fine Assam ...	0.73	1.23

"As a rule, one may say that a teacupful of tea of ordinary strength infused for five minutes contains about one grain of caffeine, and twice or three times as much tannic acid."—Page 320.

Composition of infusion of coffee:—

"If two ounces be used to make a pint, a teacupful of the beverage will contain in solution about 4.2 grammes (about 65 grains) of solids, of which 0.65 is mineral matter. This is supposing the coffee to be filtered. As ordinarily drunk, some suspended matter must also be included. An analysis which I have made of coffee of the above strength showed the presence of 1.7 grains of caffeine per teacup, and 3.24 grains of tannic acid. According to

this result, a cup of black coffee contains very much the same amount of caffeine and tannic acid as an equal quantity of tea. A breakfast-cupful of *café au lait* is composed of about 1 part of black coffee to 3 of milk, and will not, therefore, contain more of the alkaloid than a teacupful of tea."—Page 324.

Cocoa:—

"Cocoa contains from one to two per cent of theobromine, or about as much as there is of caffeine in coffee. Cocoa contains some tannin, though probably not of exactly the same form as that found in coffee and tea. Zeppirer places the amount at 5.4 per cent."—Page 327. Theobromine is identical in composition and action to caffeine or theine.

## 144. Displaced Uterus

"X.Y.Z." has been told by one physician that the "cords of her uterus are stretched," and that an operation is necessary. Other medical men have advised that "the cords be shrunk instead of cut," and asks for our advice.

*Ans.*—Every operator has his own favourite way of shortening the cords of the uterus; some cut them, while others double them over. The chief point is to get a competent surgeon and allow him to operate as he sees fit. Both methods are equally successful where ordinary surgical care and skill are exercised. We would certainly advise an operation.

**145. Rupture of the Abdominal Muscles**

"S.E.M. (Auckland)" writes: "A lady acquaintance of mine has had the misfortune to rupture the abdominal muscles, and where they should be connected in the centre they are a few inches apart. Is an operation necessary? What might result if allowed to go on as they are?"

*Ans.*—If the muscles are really separated an operation will probably be necessary. The health should be improved and massage with faradic electricity should be tried first. With a weak condition of muscles they may separate again even after an operation. Consult a reliable physician.

**146. Paralysis**

"Clarendon" writes: "About five years ago I was thrown from a horse and fell head first into a hollow log and injured my spine. I had treatment for the first fifteen months, viz.: hot, cold, and electric baths, hot fomentations, and massage. I have a numb feeling from my ribs down to my feet, but have no control over that part of my body whatever. I have full control of arms. What treatment would you advise? Do you think I will ever be able to walk?"

*Ans.*—The faradic current and massage are the best treatments for this case; they should be applied daily. We are afraid after five years the hope of recovery can only be slight.

**147. Exercises**

"Rexo" writes: "Would you suggest some simple breathing and physical exercises for the general development of the body? I am engaged in business and consequently am most of my time indoors."

*Ans.*—All exercises increase the breathing. In breathing exercises it is always well to remember that it is a muscular act, and the mind should be directed to the muscles in each part of the chest. First direct the mind to the upper part of the chest and then to the sides and lower parts. If the hand rests lightly on the

part to be expanded it is easier to accomplish the particular chest expansion. For general exercise we believe there is nothing better than those exercises which have a definite purpose, such as chopping wood, gardening, rowing, tennis, and walking.

**148. Maude's Questions**

"Maude" writes: "Would you tell what I can use to prevent myself from getting sunburnt, and that would not make hair grow on my face? Is there any harm in using chewing gum? Is there any harm in eating a fair amount of fruit about two hours before breakfast? If you had two meals a day, would there be any harm if you ate fruit or drank milk between the meals? I sprained my arm at the shoulder about three weeks ago. What can I do for it?"

*Ans.*—The various toilet creams on the market all help to prevent sunburn and do not cause the hair to grow. Continual chewing is unnatural and cannot be productive of good. If there are only two meals a day milk may be taken as a light meal, but this of course makes a third meal. No food should be taken between meals. Fruit a couple of hours before breakfast can do no harm and often helps the action of the bowels. The softer fruits are advisable. Good hot fomentations will help the shoulder. Finish with a cold application and vigorous rubbing.

**149. Blackheads**

"Miss N.S." has tried many remedies for the above but without success. She asks for a reply by post.

*Ans.*—In regard to the latter, "N.S." is asked to read notice at the head of "Chats." For the blackheads great patience and perseverance are required in carrying out details of treatment. All foods cooked with fat of any kind, even biscuits, should be avoided, also flesh foods, fish—fresh or tinned,—and new bread. Neither tea, coffee, nor cocoa should be used. A healthy action of the skin is necessary. Steam the face over boiling

water or thoroughly wash with hot water and soap twice daily. In the day time use the following lotion:—

℞ Sulphur. præcip. ʒii (2 drams)  
Calaminæ præp. ʒss ( $\frac{1}{2}$  „ )  
Aquæ rosæ  
Aquæ calcis aa ʒv (of each 5 ozs.)

Allow to dry and remain on the skin. At night use the following ointment:—

℞ Benzoated zinc ointment 10 drams  
Rice starch 5 „  
Resorcin 30 grains  
Corrosive sublimate 3 „

Well rub in after hot water and soap and smart friction with rough towel.

#### 150. Lump, the Size of a Pea

“S.M., Iona,” complains of small lump a little larger than a pea and fears it may be cancer.

*Ans.*—From the symptoms given we have no hesitation in saying it is certainly not cancer. “S.M.” need not have the slightest concern.

#### 151. Head Noises

“E.F.A.” writes: “I am a great sufferer with head noises, especially at night. I cannot breathe through my nose. My blood gets so hot at times that the palms of my hands are like fire. My breath is offensive at times. The least exertion makes me tired. I suffer with constipation, my heart beats very quickly after slight exertion, and I am very nervous.”

*Ans.*—Apparently there is some digestive trouble; this would keep up the trouble in the nose and help to produce noises in the head. If there is loss of hearing, there is probably some catarrhal condition in the Eustachian tube (tube leading from the throat to the ear). A catarrhal condition of the throat often extends up the Eustachian tube and will lead to more or less permanent deafness. Undoubtedly this catarrhal condition depends to a large extent on the digestion, especially that of the duodenum and small intestine. All rich foods should be avoided, especially foods cooked with fat or

butter and foods containing much sugar. Neither tea, coffee, nor cocoa should be taken. Regulate the bowels by the taking of fruit (fresh or stewed), granose biscuits, figs (dried or fresh), prunes, vegetables, and the drinking of pure water between meals. The general health should be attended to and as much time spent in the open air as possible. The nose should be examined by a physician; this might be the cause of the head noises.

#### 152. Goitre

“F.L.” asks for a remedy for the above. There has been an enlargement of the neck for about nine months.

*Ans.*—Many goitres of late years have been cured by operation. This, in fact, is the only sure remedy. The red mercurial ointment used until redness and soreness are produced and repeated directly the redness disappears is a very favourite remedy. The galvanic current is also helpful. The drinking of “hard” water is the most frequent cause of goitre, but in many cases there is no such history.

#### 153. Indigestion; Constipation; Weakness

“Prospect” complains of the above. Her baby is only three months old. The weakness is felt very much after baby has had the breast.

*Ans.*—We would advise “Prospect” to take plenty of fresh milk with the three meals—a pint at each meal could be managed very well. Milk when scalded or boiled is constipating, but not when taken fresh. Milk thus takes the place of tea, coffee, or cocoa, all of which are injurious. Eggs, raw or lightly cooked, make an excellent building-up food. All food should be as plain as possible; rich foods do not give strength but cause indigestion. It should be remembered that the chemical composition of all our simple foods is very complex; the mixing of foods in cooking is the cause of much indigestion. “Prospect” is recommended to read the article, “Indigestion and its Causes” in this issue of LIFE AND HEALTH.

**154. Postnasal Growths**

"C.H." asks for causes, symptoms, and treatment of "postnasal growths."

*Ans.*—It should be remembered that postnasal growths consist of the overgrowth of a normal organ, the pharyngeal tonsil, which is situated right behind the nasal cavities in the upper part of the pharynx—the part of the pharynx which is quite out of sight and can only be seen by a carefully adjusted small mirror placed at the back of the throat. This tonsil is similar in structure to the ordinary tonsil, except that it is of a softer structure and bleeds more readily.

This overgrowth is found mostly in children from the ages of five to fifteen years, but it exists in babies often from birth and sometimes in adults. After puberty it tends to disappear, but this is no excuse for non-treatment, as permanent mischief will result long before that age is reached. The causes of this trouble are heredity, cold and damp atmospheres, sleeping in stuffy rooms, exposure of legs and feet in cold weather, and unsuitable foods. In warm dry climates, postnasal growths are rare. A child should naturally breathe through the nose. Mouth breathing is one of the first signs of postnasal growths. In infants there is difficulty of suckling, and the rest is disturbed through not being able to breathe through the nose. After some time the nose becomes pinched, the nostrils are narrow, there is flattening of the bridge of the nose, and the face has a remarkably vacant expression. As a result of mouth breathing the pharynx and the larynx become dry, as the air is not warmed and moistened in the nose before coming in contact with these parts. There is often loss of, or diminution in, the sense of smell, and the voice has a nasal quality. Often the hearing is poor, and there may be excessive secretion from the nose and throat. Any suspicion of postnasal growths should lead the parent to consult a physician. Slight symptoms may disappear, but if they tend to increase, an operation is the only cure. A child's whole life may be blighted through delay.

**155. Cracking of Joints; Stammering**

"Anxious, Timaru," complains of constant cracking of the joints of her body and difficulty of speaking on account of quivering of her cheeks.

*Ans.*—There are many diseases connected with the cracking of joints, such as rheumatism, rheumatic arthritis, locomotor ataxia, etc., but evidently this is due to some nervous disorder. "Anxious" should consult a medical man and have a thorough examination. In regard to the stammering, we would advise "Anxious" to place herself under a good teacher for voice production or elocution. Slow, deliberate production of a few sounds or words without any attempt being made to much speaking is advisable to begin with. First learn to produce one word at a time with some force, then two, and so on until more control is gained over the speech organs.

**156. Sore on Lip**

"Moscow" writes: "When I was about two years of age I fell from a chair and cut my lip on the corner of the table. It healed very rapidly, but has ever since been breaking out in a blistering sore at different seasons of the year. It is 15 years since it was done, and every year since I can remember it has broken out about autumn. It has broken out now, and my lip is swollen over the place where it was hurt, and a watery blister has appeared as usual. It generally dries off and heals over again after a week or so and to all appearances disappears for good until about autumn."

*Ans.*—Probably some obscure germs remain in the skin of the part. Break the blister and paint with a liniment made of equal parts of tincture and liniment of iodine. Pure carbolic acid is also good, but in this case surround the parts with vaseline so as not to injure the surrounding parts. Either treatment probably will give permanent relief. Two or three applications of the iodine may be necessary.





# QUIET TALKS WITH MOTHERS

## Finding the Right Food for the Bottle Baby

BERTHA BELLOWS STREETER

IT is quite a common experience to see a young mother with her first baby, one eye on the clock, the other on her progeny as he kicks and squirms and sobs in her lap.

"What is the matter?" one invariably asks.

"There's fifteen minutes before feeding time," is her reply.

Now, she is supposed to be an intelligent young woman because she tries to feed her baby regularly, following a schedule given by an authority on the feeding of children both as to quantity, frequency, and method of preparing the food. To be successful in baby raising, however, a mother must go farther than this, for there are thousands of babies being raised by schedules for whom these tables are not intended at all. No doubt you will note that most of them state that "they are given for the average healthy baby," and most mothers assume that that means their own children because they have never been downright sick. They have never stopped to consider what a healthy baby is like.

In the first place, a healthy baby is fat—but not flabby. He is more than plump and roly poly; he is downright fat. He has a double chin, full cheeks; elbows, hands and knees are full of adorable dimples, and you can't see a rib in his chubby body.

He gains steadily in weight, putting on at least half a pound of good, solid flesh every week—except perhaps the first of his life—until he is about five months old, when he makes a little less rapid progress. His muscles are firm and his eyes bright, his chest symmetrical and broad, his abdomen protrudes and is as firm to the touch as the other muscles in his healthy, young body. His complexion is clear, and after he has lost his redness, of a beautiful pink and white. He sleeps long and sound and, unless he has been spoiled, he is happy and contented the whole day long.

Is this a description of your baby? Then a schedule is for him. If it does not describe him, it is just "up to you" and to nobody else to make him the perfect specimen of babyhood that he should be. And you can do it if you will go at it in a sensible way as other young mothers have done. Then you can follow a schedule or the schedule will follow you, just as you please.

Now, notice that I say "a" schedule. If you have but one source of information no doubt you will be surprised to learn that there are all sorts of opinions as to what a baby of a certain age should be fed on who is not receiving a sufficient amount of nourishment in the form of mother's milk. Most authorities advocate modified

cow's milk—and modified in this connection means cow's milk to which has been added ingredients to make it as nearly like mother's milk as possible, and this is the kind of food we will consider in this article.

Cow's milk lacks the milk sugar that human milk contains, so we add milk sugar to the baby's food, and without it in sufficient quantity he will not gain properly in the first few months of his life if

three of the number I have at hand. One says that a child of three months should have a mixture consisting of one part water to one part milk and an even teaspoonful of sugar for each two ounces of the diluted mixture. Another says that a child of this age should have two parts milk to three of water, with one tablespoonful of sugar to each thirty-six ounces of the mixture. The third calls for one part water to two parts milk and three



*J. H. Kinnear, Photo., Auckland*

#### ONE OF NATURE'S HEALTH FOOD FACTORIES

he has to depend entirely upon artificial feeding. Cow's milk also lacks the proportion of water contained in mother's milk when the baby is small, so we add liquid to overcome the concentration of this food intended by Nature for the strong young calf. As cow's milk is not alkali, we add a full teaspoonful of lime-water to each feeding for the baby, an addition that ensures good teeth and bones for the child just starting out in life under our care.

Now, as I started to say, there are a number of schedules to which young mothers pin their faith, and to show you how they differ I am going to quote from

level tablespoonfuls of sugar to each thirty-five ounces.

Quite a difference, isn't there, between a certain amount of milk to a given quantity of water and twice that amount of milk for the same quantity of water? But I raised a healthy boy starting with the first formula that requires the least amount of milk to the mixture; inside of four months, however, I had him on whole milk, while this table gives directions for the dilution of the milk when the child is fourteen months old!

Because I had had good results with this schedule I started the baby now under my care according to the same

formula when she was three months old. She had been existing on an unsuitable food and did not thrive, and no one in her family could see where the trouble lay. But my, what a time that baby and I had with that formula that had proved trustworthy with one of my own children! She grew more and more fretful, could not sleep, had colic, lost steadily in weight, and finally gnawed ravenously at her hands. This last I knew to be one sure sign that a child is not getting enough nourishment, so I worked up to the second formula, but that would not do. It was only when I put her on the last formula and substituted very thin oatmeal water for half the plain water stipulated that she began to grow as she should. In a week she gained three-quarters of a pound, slept as a baby should, was as bright and happy as she had been discontented.

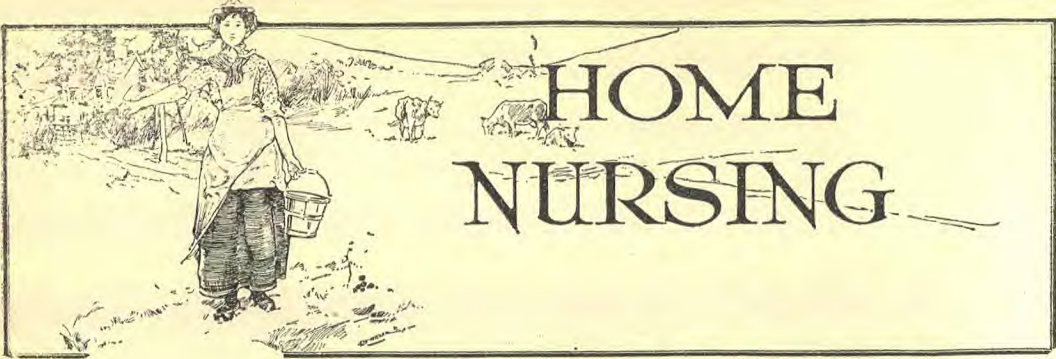
Now, it was manifestly unfair of me to expect that child who never got enough to eat at any feeding to wait the three hours which, the schedules say, should pass between the bottles. And when she cried at night for two feedings instead of one it would have been positively criminal to refuse her. But how many authorities say: "The mother must under no circumstances deviate from the schedule," or words to that effect. I have read it time and time again. That is all right, perhaps, for the healthy baby, the one that is getting enough to eat and is not subjected to conditions that would make it hungry sooner than usual, but it seems to me that in the course of a day one sees *very few* healthy babies, that could be judged by the physical appearances I have described. Hundreds of mothers who think their thin babies with skinny arms and legs would take prizes at Better Babies Contests are sadly disillusioned when those children are before the judges.

When the baby over three months of age is getting the right food to satisfy the demands of its growing body it will not fret for anything to eat oftener than once in three hours; usually it will go right up to the minute without a whimper for food. But the baby who is not getting enough

will begin to fret long before that and nuzzle and perhaps, if very hungry, will try to eat its fists. And at that point do not stuff a pacifier into the poor child's mouth! It is horrible to think of offering a baby that abomination when what he needs is food more nourishing than he has been getting. Never mind if it is but an hour and a half since he was last fed, give him another bottle, but with more milk to the solution.

Time him and see if with that proportion of milk and water he does not stay satisfied a longer time. If you have put too much milk into the bottle he will throw up sour milk in about an hour after feeding; if you will but study him a little bit you may be sure when you are on the right track. When his bowel movements are in good condition and he gains steadily in weight, you may be reasonably sure that things are going well. If, however, the bowels run off green you must diminish the amount of milk, too. This must be looked after very carefully, as it is most apt to occur when the weather turns off warm suddenly, and may lead to serious results. You see, food that satisfies the baby during cold weather is too heating for hot weather, so we have to dilute it and so free it of some of the fats if we are to avoid intestinal troubles.

If the baby cries as if he were disappointed when he has drained his bottle of the proper amount of food for a child of his age, you may be sure that the milk did not satisfy him, and that he will not gain on it as he should. If the food for the day has already been made up, before giving the baby his bottle at the next feeding time, turn out an ounce of the mixture and substitute whole milk for it. If, after that bottle, he is still dissatisfied and cries for food in less than the proper interval of time, you may be quite sure that he is still getting too little solid matter. When next you make up his food allow for the addition of milk you found necessary in previous feedings and continue to work up to an amount that satisfies the child and makes him gain in weight.—*American Motherhood.*



## Hygiene of the Bedroom

[THE following, which is part of an article that first appeared in the *Woman's Medical Journal*, February, 1913, contains so much of importance to the nonmedical person that it is well worth reproduction.—ED.]

IN a well-ordered home the sleeping chambers are probably of greater hygienic importance than any other part of the house, for they are the rooms occupied most continuously and for the greatest length of time. Persons who lead normal lives spend at least eight hours a day in their bedrooms; therefore it is obviously desirable that these rooms be of sufficient size and provided with adequate fresh air and sunlight.

These elementary conditions of healthful living are often neglected or ignored where real estate values soar to the heights attained in our cities, and the problem of the architect is to house as many persons as possible within the narrow limits of a contracted building site. In city flats and tenements, as ordinarily planned, the meagre bedrooms are reduced to the meanest dimensions for the benefit of parts of the house which are really less important. They are too often relegated to the least favourable locations on dark shafts or interior courts, and are frequently cramped and of inadequate size to permit more space for a pretentious display in the parlour and dining-room, which are relatively but little used. In modest homes and small apartments it

would usually be not inconvenient and far more sensible to use the diminutive bedrooms for dining- and drawing-room purposes and the better-ventilated and more ample parlour and dining-room, opening directly upon the street, for sleeping chambers. Frequently the city physician's first duty is to remove his patient from a dark bedroom to the lightest and most commodious room available. Were such rooms occupied more generally by the family when in health, the physician's presence would be less often required.

The rent payer, however, may have little choice in the interior arrangements of his rooms—this has been attended to for him by his landlord and the speculative builder. But the householder may at least provide for the furnishing of his house in such a manner as to meet the requirements of good hygiene. In the bedroom, simplicity and scrupulous neatness should be the keynotes. The floors should be of such a character as to permit frequent cleansing, either hardwood stained, or linoleum covered, or one of the modern cement compositions which are not cold and inelastic. Old-fashioned, tacked-down carpets have no place in the up-to-date home, least of all in the bedroom. Floor coverings should be small rugs which may be taken up and thoroughly cleaned as often as needed. Japanese cotton rugs are inexpensive, and are useful for this purpose, as they can be

easily washed. Matting is undesirable, both on account of its stuffy odour and on account of the facility with which it permits dust and dirt to sift through to the floor below.

The walls of the bedroom are preferably painted with a hard paint which can be wiped down with a damp cloth. If papered, the wall paper should be smooth finished in quiet tints and inconspicuous

collect dust and microbes, and serve no useful or artistic purpose; good hygiene and good taste alike frown upon cozy corners, plush-covered furniture, and tapestried bed hangings. A few simple prints in narrow frames should be the only decorations for bedroom walls, and curtains for the windows are best made of muslin or other wash material.

When practicable, it is desirable for



A GROUP OF NATURE'S CHILDREN

*J. H. Kinnear, Photo., Auckland*

patterns. The vivid greens, reds, and blues sometimes seen in the rooms are often loaded with dangerous pigments, which may possibly be a cause of arsenical poisoning. Large patterns and loud, in-harmonious colours are also irritating to a sensitive, nervous person, and are not conducive to the inviting restfulness which should be characteristic of a room dedicated to repose.

A multiplicity of ornaments, bric-a-brac, embroidered scarfs, cushions, and table covers should be avoided. They

every person to have his own bedroom. If it is occupied by two, each should at least have his own single bed. Metal beds, of brass or iron, are to be preferred. Folding beds, upholstered couches, or other space-saving contrivances are abominations from the hygienic standpoint. Hair mattresses which can be renovated and cleaned are best. In winter greater warmth may be obtained by interposing a heavy army blanket between the mattress and springs, or a second mattress is even better. Down coverlets or woollen

blankets are lighter and warmer than cotton-filled bed coverings. In our climate linen sheets are cooler and more comfortable than cotton in summer. The mattress and bedding should be well aired every morning before the bed is made up. Closets opening off from bedrooms should not be made receptacles for old shoes, soiled clothing, and household rubbish.

The successful campaign against tuberculosis has taught physicians and the public that open bedroom windows are of very great value for many other conditions than consumption. Chronic states of malnutrition and anæmia, functional nervous troubles, and insomnia are often marvellously relieved by the simple expedient of sleeping in the pure, fresh air. It is necessary, however, during the winter months to be suitably dressed for outdoor sleeping. Patients have sometimes suffered through injudicious and unnecessary exposure from following the well-intentioned advice of physicians and friends who have not been sufficiently explicit in this particular. Neuralgia, in-

flammation of the ear, sore throat, cold in the head, toothache, and muscular rheumatism may undoubtedly be caused by sleeping with open windows during the cold months, with insufficient protection.

Lingerie nightgowns or thin cotton pyjamas are not the proper costumes for outdoor sleeping. One must be properly equipped to successfully adopt and enjoy his open windows. A thick woollen sweater and knitted hood or cap, to come down over the head and face, are indispensable; and if one is at all delicate, a hot water bottle at the feet may be necessary. A high screen around the foot of the bed is excellent to protect from draughts.

No one who has been educated in fresh-air methods, and has experienced the physical and mental benefits of open windows, ever willingly again sleeps in a stuffy, ill-ventilated bedroom. A remedial measure of the first rank in the sanatorium and hospital is of equal importance as a means of prevention of disease in the home.

---

## Bedsores

WHEN an illness is so prolonged that the patient must stay in bed week after week, and sometimes month after month, and especially when the illness is of such a nature that change of position is difficult or impossible, bedsore are likely to form unless great care is taken to prevent them—and sometimes even in spite of the very greatest care.

There are various types of patients who are especially liable to bedsore. The very stout are liable to them because of their weight, and the very thin because of the pressure of the bones against the unprotected skin. Aged persons get them because their skin is unhealthy and degenerates easily. Those who lie in unconsciousness or who are paralysed, or those who are hurt in such a way that

they cannot make any of the little movements that insensibly vary the position, are also subject to bedsore.

A careful nurse in charge of a patient who is in any of the conditions we have spoken of always keeps a sharp watch for beginning bedsore, well knowing that these terrible additions to a bad illness can be more easily prevented than cured. Her vigilance needs to be especially keen when her patient is suffering from a sickness that makes it difficult to keep the skin dry and clean and free from germ infection.

The prevention of bedsore consists in perfect cleanliness, in keeping the skin dry and in doing everything possible to make it healthy and resistant. The lower part of the back should be washed with

soap and water at short intervals,—for example, twice a day,—and it should be dried gently but very thoroughly. When the nurse has removed all moisture she should gently rub the skin with alcohol in order to harden it, and then powder it well with some simple drying powder, such as one made of equal parts of boric acid and starch. In an illness where the skin cannot be kept dry it is better to use a boric ointment instead of the powder.

Careless nursing is responsible for many a bedsore. Sheets that are allowed to crumple under the patient instead of being kept smooth, crumbs accumulating in the bed, soiled and damp bed linen allowed to remain in contact with the patient, a disposition not to disturb a patient who does not wish to be disturbed—and the result may be weeks and months of trouble. In prolonged illness an air cushion or a water bed is much better than the ordinary mattress. The patient should be turned regularly from side to side in order to avoid continued pressure on one spot.—*Youth's Companion*.

### Apoplexy

WHEN a blood vessel gives way and permits the blood to flow into the brain, an apoplectic or paralytic stroke occurs. That may happen to a person apparently in good health, although often the sufferer has previously complained of headaches or dizziness, or has seemed drowsy, or has shown signs of unwonted irritability. The attack itself is generally abrupt; the sufferer, engaged in his usual tasks or amusements, suddenly complains of a pain in the head or a feeling of illness; almost immediately he becomes unconscious. Some cases are more gradual in their onset, and may not even cause unconsciousness at all; in these cases the paralysis, some degree of which always accompanies these attacks, appears while the patient is perfectly aware of what is happening. In still other cases the attack begins with mental confusion,

which passes gradually into unconsciousness and finally into a state of deep coma.

The type of seizure depends on the spot in the brain where the ruptured vessel is, the size of the hæmorrhage, and the slowness or rapidity with which the blood flows. A severe "stroke" is usually fatal, but many people have slight ones, from which they recover to lead



THE BEST OF FRIENDS

useful and happy lives for a number of years. The most striking symptom in such cases is the paralysis that the attack leaves behind it. It is generally of the hemiplegic type; that is to say, it affects only one side of the body, and sometimes, in very slight cases, only one limb or set of muscles. Speech is often affected, so that the sufferer answers questions slowly and with considerable effort, and cannot always find the right word.—*Youth's Companion*.



# THE HOUSEKEEPER

## The Finest of Arts

SAYS an old proverb: "It is a greater accomplishment to be a good cook than to be an author or a musician." And the world has proved it to be a true statement. A bad cook will cause more discord in the home than ever a bad musician can thump out of a piano or scratch from a violin; while the most elaborate touch of a master-musician brings forth less harmony than is seen in the home of a good cook. An author may write a book that will make his name widely known; but on the faces of the family provided for by a good cook are written finer stories and more pleasant tales than were ever penned by the book producer.

The choicest food is often spoiled in its preparation. And surely this should not be. Cookery books of all descriptions are on the market, while even our daily papers devote portions of their columns to this important subject. What, then, is the cause of the failure? The cause is not one, but many. In the first place, the housewife does not spend enough time in the study of the rudiments of her profession.

But another cause for the failure of the cook, no matter how closely she thinks she follows the recipes, is her carelessness. The average cook is not particular over the quantities of materials she uses. As long as they are somewhere near the specified amounts they will do, she thinks.

But all cooks should remember that "hit-or-miss" combinations will give "hit-or-miss" results. Here are a few

hints and definitions of phrases common to cookery books, and a misinterpretation of which often leads to a misunderstanding at the table:—

A half-pint measuring cup is the standard measure for all recipes. This is the same size as the common china teacup, but is more convenient, as it is graduated.

Flour, sugar, and butter, in recipes calling for tablespoonfuls, should be measured rounding, as they mean a given weight.

A cupful of dry material means the cup level full, unless it is otherwise specified.

A cupful of liquid means all that the cup will hold.

The silver tablespoon and teaspoon in common use are the standard for measuring.

Four saltspoonfuls make one teaspoonful.

Forty drops equal one teaspoonful.

Four teaspoonfuls make one tablespoonful.

Four tablespoonfuls make one gill.

Two gills, one cupful.

Two cupfuls, one pint.

Two pints, one quart.

Four cupfuls of sifted flour is one pound.

Two and one-half cupfuls of granulated sugar is one pound.

Two and one-half cupfuls of meal is one pound.

Two cupfuls of any of the coarse grains, about one pound.

Two cupfuls of butter, one pound.



One heaped tablespoonful of butter, one ounce.

Two cupfuls of a liquid, as a rule, is one pound.

Ten eggs, medium size, make one pound.

Five rounding tablespoonfuls of flour or sugar is one cupful.

A rounding tablespoonful of flour weighs half an ounce.

H. G. F.

### The Care of Linoleums and Carpets

A GREAT percentage of the time of the good housewife is spent in keeping the floors clean. There are some women who spend more time than is absolutely necessary on polishing and waxing the linoleums, very often with disastrous results to the other members of the family who are not used to balancing themselves upon a surface akin to glass. These highly polished floors are more beautiful than practical, and a good clean oilcloth mopped with clean water serves the purpose admirably under ordinary circumstances. If the water is not sufficient, make a paste of whiting and soap-suds. Rub on the floor covering with a cloth and then wash off with clean water. The addition of a little borax to the water will do no harm; but care should be taken that no strong alkalis are used. If you possess a cow or if you can reconcile with the calls for economy the use of milk, the addition of half milk to the water is declared by some to give an added lustre to linoleum and painted floors. If the linoleum or oilcloth is given a coat of varnish or shellac two or three times a year, it will greatly add to the durability and appearance of your floors. If these are not obtainable, two coats of linseed oil brighten the appearance like unto new.

#### Carpets

The care of carpets occasions more worry and work than of linoleums; hence the busy housewife is often tempted to "leave the carpet for this week," hoping for more time on next cleaning day. But carpets are expensive things; therefore, special care should be given them. They

should be swept at least once a week in order to remove the dust and disturb the moths. The modern vacuum cleaners have greatly simplified the cleaning of carpets, but many housewives think that they have also greatly simplified the work of



J. H. Kinnear, Photo., Auckland  
NATURE'S MIRROR

the moths. Nothing disturbs the activities of a family of this destructive pest like a good brushing with a stiff broom. A closely woven carpet may be well cleaned by sprinkling it with salt and then sweeping thoroughly. The salt gathers the dust, prevents it from rising, and is a good cleanser. Medium coarse salt is the best kind to use. Some people recommend

the use of bran or corn-meal, but this often proves decidedly unsatisfactory on account of the fineness of the meal, much of which remains and attracts vermin. Others use discarded tea-leaves to lay the dust as they sweep. Certainly it does that; but these housewives should not be surprised to see their carpets stained by the acid in the leaves. And yet many of them are!

The use of a good insect powder round the edges of carpets and underneath will prove a good deterrent against the inroads of moths and other destructive pests.

### A Valuable Helper on Wash Day

**BORAX** is the name of this valuable aid to the housewife on washing day. As no doubt nearly all who join the noble army of "washerwomen" one day a week know, borax is almost indispensable. In many ways it effects a considerable saving in both time and materials. In washing, for instance, nearly one-half may be saved in soap by the use of a good handful of borax to each ten gallons of water, and it is better than soap to make the clothes snow-white.

A tablespoonful of powdered borax dissolved in a little warm water (or in the water in which the starch is dissolved) added to a pan of starch helps not only to stiffen the clothes but also prevents the iron from sticking.

A good washing fluid may be made by mixing together in an enamel pan one pound each of potash lye, washing soda, borax, and four quarts of boiling water. When cold add one pint of ammonia, and pour into glass jars, or earthen jug. About half a cupful of this solution will be sufficient for an ordinary-sized wash.

A little borax in the water in which scarlet or red articles are washed will prevent the colour from fading.

### Give These a Trial

**A Nourishing Salad.**—Cut one cupful of nut meat into small cubes, and use one-third as much minced celery. Add to this one hard-boiled egg, chopped, and three small radishes cut into various

shapes. Pour over these ingredients the juice of two lemons and sprinkle with salt to taste, allowing the salad to stand for one half hour before serving it upon fresh, crisp lettuce. Garnish with radishes which have been cut to represent tulips.

**Brazil Nut and Lentil Roast.**—Cook one and one-half cups of lentils until tender and dry, and pass through the colander. Then add to the pulp one and one-half cups of chopped Brazil nuts, three cups of very dry breadcrumbs, two teaspoonfuls of salt, and hot water according to the dryness of the crumbs, perhaps about two cupfuls. The mixture should be quite dry, for if too moist it will not be firm and solid like meat and will not slice nicely. (A dish that requires a spoon for serving is not a roast.) Press into a brick-shaped tin, well oiled. Set into a pan of hot water in the oven, cover, and bake slowly for from one and one-half to two hours. Garnish and cut into slices.

**Gravy Toast.**—Heat a quart of milk to boiling, add salt, and stir into it three scant tablespoonfuls of flour which has been rubbed to a smooth paste in a little cold milk. This quantity will be sufficient for about ten slices of toast (twice baked). Moisten the slices with hot water and pack in a heated dish. When serving pour a quantity of the milk gravy over each slice.

**Lentil Gravy with Rice.**—Rub a cupful of cooked lentils through a colander, add a cup of milk, season with salt. Heat to boiling and thicken with a teaspoonful of flour rubbed smooth in a little cold milk. Serve hot on nicely steamed or boiled rice, or with well cooked macaroni, or on slices of twice baked bread.

**Bread Steaks.**—Cut bread about a quarter of an inch thick into any shape preferred. The pieces are first dipped in milk (not soaked), then in beaten egg (and dried) and fried till brown in a pan. If properly done, the bread is scarcely observed. The beaten egg may be flavoured with thyme or parsley or other herb.

**Cream Celery Soup.**—2 stalks celery (Tough outside stalks will do);  $\frac{3}{4}$  quart milk; 1 tablespoonful flour;  $\frac{1}{2}$  tablespoonful oil;  $\frac{1}{2}$  teaspoonful salt. Grind the celery through a food chopper, being sure to save any juice that runs out of the chopper. Steep the celery in the milk in a double boiler one half hour. Strain out the celery. Press well to extract all the juice. Put the liquid back into the double boiler and heat again to boiling. Thicken with the flour stirred smooth with a little cold milk. Stir in oil and salt.

**Cream Watercress Soup.**—Follow directions for cream celery soup, using a few sprigs of watercress instead of the celery.

**Cream Corn Soup.**—Follow directions for cream celery soup, using one cup corn scraped from the cob, instead of the celery; and instead of merely straining the corn out of the milk after steeping, rub the corn through a colander, and use the pulp in the soup.

**Cream Cucumber Soup.**—Follow directions for cream celery soup, using one medium cucumber instead of the celery. The cucumber need not be peeled.

Half water may be used in these soups, but they will not be so rich.



### Mosquitoes and a Small Boy

HERE is a story which was told to a group of little English children after they had returned from a good holiday, but since it speaks of those annoying little mosquitoes, it will be especially interesting to our Australian children:—

“Back from the holidays, are you? I hope that because you have had a nice holiday you are going to behave better during the rest of the year. Were there any gnats or butterflies or mosquitoes where you have been to stay? And if so, did they bite you? When they bit you, how did they like you? I know a boy whom a gnat once bit when he was very cross about nothing at all; and though it served the boy quite right, the poor gnat was made so ill that he was never the same again. I know some little girls who are so nice that it is as good as a tea-party for a mosquito to get a really good bite of them. Still, even then the mosquitoes like the bite more than the little girls do; and the things all kinds of children say when a mosquito or gnat really stings them mean that they do not enjoy it at all. Yet in Great Britain mosquitoes do not bother half so much as they do in a great many other countries. Why, in some places abroad people are forced to have very fine netting all round their beds and over the top of them to protect them from mosquitoes and other insects. Before they light the candle to undress, they shut the windows tight because mosquitoes are always attracted by a light; and before they go to

bed they hold the candle inside the mosquito curtains, and look very carefully indeed to see whether some unnecessary insect has not got inside. Sometimes, whatever they do, mosquitoes get in, and then when it is quite dark and they are fast asleep, they sting them on the nose or elsewhere, and they wake up and hit themselves hard while the wicked mosquito flies round and buzzes with triumph.

“In hot countries mosquitoes bother people more than enough when they are well; and when people are ill they are very hard to bear indeed. Once in one of these very hot countries where mosquitoes swarm, there was a little boy whose mother was very ill. She had to spend all her time in bed with the mosquito netting all round her to keep the insects away. But try as she would, somehow nearly every night they managed to get inside the curtains, and to bite her; and because she was so weak and ill, their bites made her feel very bad indeed. At night her little boy slept near her in his own bed, which had special little mosquito curtains of its own; and it made him so sorry to know how the insects bit his mother that he tried all kinds of ways to help her. He used to catch as many mosquitoes as possible before going to bed, and he used to wake up in the night and shout so as to frighten them, but still they managed to get inside his mother's mosquito curtains and to hurt her.

“One night she was really very ill indeed, so ill that she could hardly speak to her little boy at all, and the mosquitoes

were so troublesome that they kept her awake. Then what do you think her little boy did? She did not know because she was too ill to notice. He got out of his own bed and went to a couch that was by the side of his mother's. There he took off the little garment he wore at night, and without anything on he lay till the morning just outside his mother's mosquito curtains, so that all the insects in the room might be attracted by his bare body, and so that his dear mother might not be troubled by them. Very soon they came and bit him all over, but the little hero did not mind, for he knew by his mother's breathing that she had been able to go to sleep; and by the number of mosquitoes that bit him he knew that there really could not be many left to bite her.

"Was he not a splendid kind of boy? Where is the boy who will do the same for his mother? I do not mean exactly the same, because if you thought of it mother would be afraid of your catching cold; but there are other ways in which you can do your best for mother. Are you always willing to run errands for her? Or when you think that she will want you, do you run away and play in the street? And you, girls, are you always doing your best to help mother? She is always very kind to you, and there is no one in the whole world except God who loves you more than mother or father. And children, there are lots of things that you can do to make life pleasanter for them. Wiping your boots on the mat is one. Remembering what you are told the first time is another; and there are many other things you could do to help mother and father if you tried. When you disobey them or are careless about them, it sometimes hurts them more than would the bite of a mosquito; and to hurt those whom you really love is terrible.

"So let us remember that God wants boys and girls to be just as good and as kind to their parents as they possibly can; and if we cannot save them from mosquitoes, we can all of us save them headaches and worry and trouble."—*Selected.*

## Sensible Ned

Mrs. F. W. Lane

NED was a nice black horse, and a much humoured one. His master used him on a vegetable and fruit waggon, and was very good to him. Ned knew many of his master's customers, and especially the ones that "treated" him.

One day the master thought to drive by one house without stopping; but Ned thought differently, and would not go on until he got his lump of sugar.

After the woman of the house had purchased what she wanted, the master said, "Go on, Ned"; but Ned didn't start. He shook his head for "No" repeatedly when urged to go. The woman laughed, and said, "I will make him go," and she gave him a lump of sugar. "Now go, Ned," said the master; and Ned was ready to go.

At another time, when one of Ned's feet was sore, his master took him to the blacksmith shop and had a shoe put on, thinking that that would help the sore foot. But the shoe made Ned restless. When the master had finished his work, he would turn Ned into a paddock. The first night after the shoe had been put on, Ned got out, and was found the next morning standing in front of the blacksmith shop. On the following night, also, he found his way out of the paddock and to the blacksmith shop. This made his master feel sure the horseshoe was giving trouble, and he had it taken off.

Ned learned and remembered many little tricks. His master never used a whip on him, and he gave good service in return.

It always pays to be kind to dumb animals.

---

### AT NIGHT

B. L. S.

I THINK it's kind of funny,  
 When a fellow gets in bed,  
 How all the things he didn't do  
 Keep running in his head.  
 The things he really meant to do,  
 The things he meant to say,  
 Come back at night, and hang around,  
 And will not go away.  
 Somehow, at night, I wish—don't you?—  
 You'd done the things you ought to do.

# 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/-

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 in-  
dividuals. 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

293 Lit. Collins St., (3 doors from Cole's) Melb  
C/o Vic. Tract Soc., 22 Stanley St., Richmond

### Tasmania

C/o Tasmanian Tract Socy., Franklin Cham-  
bers, 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 Rd., Ponsonby, Auckland, N.Z.  
Strand Arcade, Queen Street, Auckland  
83 Willis Street, Wellington  
86a Cashel Street, Christchurch

**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*

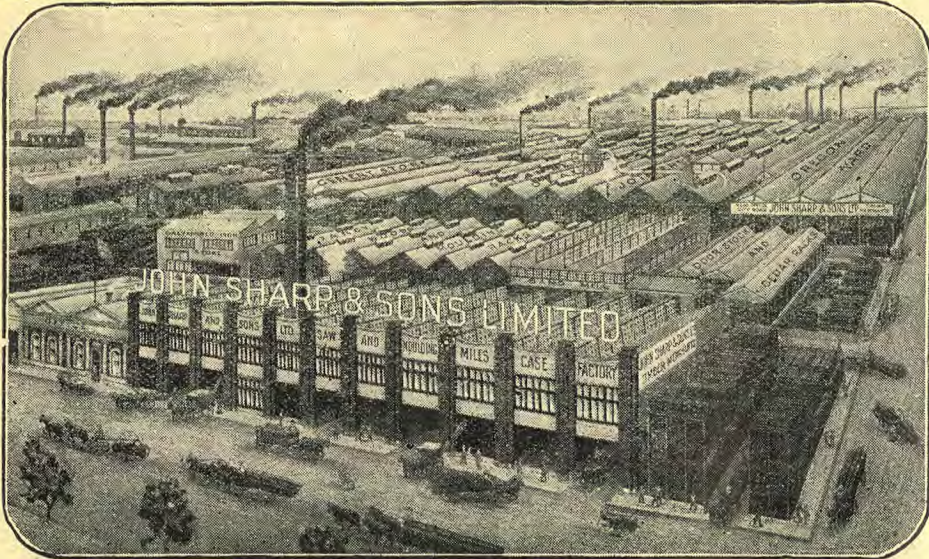
THE LEADING BRAND  
for SOUPS, PUDDINGS  
and MILK DISHES

COOKING DIRECTIONS ON ALL 1lb. PACKETS

Thos Reynolds  
118 Williams Road, Prahran  
Cable Address: Reynolds, Prahran  
A.B.C. 5th Edition

CROWN BRAND RINOLDI VERMICELLI  
CROWN BRAND RINOLDI MACARONI  
CROWN BRAND RINOLDI FANCY PASTES

**JOHN SHARP & SONS LTD. Timber and Iron Merchants and Importers**



*Large Stocks of Australian & Foreign Timbers,  
Galvanised Iron, Asbestos Sheets, & Three Ply Woods always on hand*

**We Manufacture:—Fruit Cases of all descriptions, Mantelpieces, Grilles, Troughs, Ladders, Joiners  
Work of all Kinds, Tanks and Rainwater Goods**

**(City Road, South Melbourne)**

**BOSISTO'S**  
**"PARROT BRAND"**  
  
 TRADE MARK  
 REC'D  
**EUCALYPTUS OIL**  
 FOR  
**RHEUMATISM,  
 SPRAINS,  
 BRUISES, WOUNDS,**  
**COUGHS, COLDS,  
 BRONCHITIS, &c.**  
 AVOID IMITATIONS  
 ASK FOR **BOSISTO'S**  
**"PARROT BRAND"**

**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.**

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, 293 Little Collins Street (3 Doors from Cole's)

ADELAIDE, 19 Grenfell Street (near King William Street)

BRISBANE, 186 Edward Street (near Queen Street)

PERTH, 103 William Street

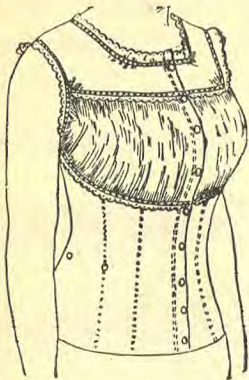
WELLINGTON, N.Z., 83 Willis Street (over Shortt's Pictures)

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."

# 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.

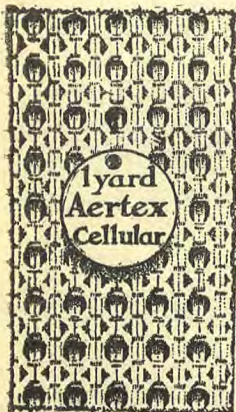
Dear Sir.—The "Freedom Waists" came duly to hand, and they fit splendidly, for which accept my sincere thanks. They are a boon to me, for I have not worn corsets for over twenty years, and on returning to Australia I had a difficulty in buying anything in that line to suit me, until I learned about your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

I remain yours faithfully,

C. J. B. DURHAM.

"Rabenau," Mt. Victoria.

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



## Aertex Cellular Shirts

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

Equal in Weight to



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

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

## 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



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: 308 George Street, :: Sydney

BRANCHES AND AGENCIES

MELBOURNE, Victoria, 293 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.



# 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 $\frac{6}{7}$ 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

# Australia's Home of Health

(The Sydney San.)

Wahroonga, New South Wales



THIS Institution is located among the picturesque hills of the North Shore-Hornsby railway line, and stands over 600 feet above the level of the sea. It is about twelve miles from Milson's Point, and is one of many similar institutions scattered throughout the world. The Institution has been established for about eighteen years, during which time it has been patronised by thousands of people from every part of Australia and New Zealand, who have highly appreciated the help derived from the various treatments prescribed, including Hydrotherapy, Massage, and Electricity.

Among the cases successfully treated are disorders of the nervous system,—such as nervous prostration, neurasthenia, etc. All the life at the establishment is adapted to the building up and reconstruction of the nervous system.

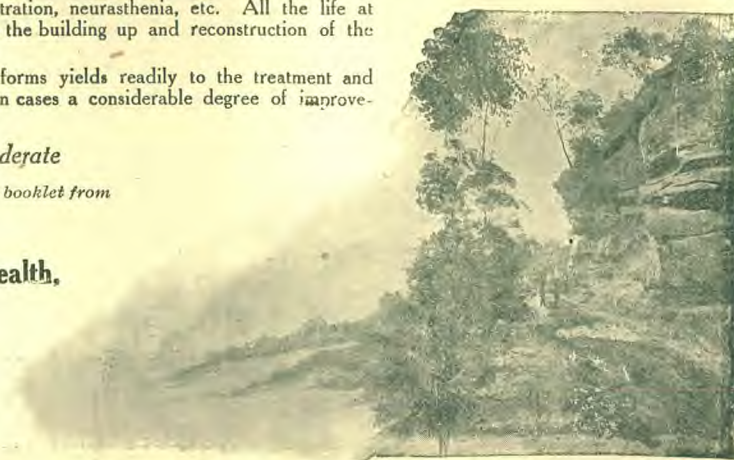
Rheumatism in its various forms yields readily to the treatment and diet; even in the most stubborn cases a considerable degree of improvement will be secured.

*Rates Very Moderate*

*Further information with booklet from*

**The Manager,  
Australia's Home of Health,  
Wahroonga,  
Sydney, N.S.W.**

Phone. Nos. 683 and 684  
WAHROONGA



*One of the Adjacent Beauty Spots*

**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**