

# Herald of Health



SCENE IN THE KULU VALLEY

Vol. 3

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No. 7

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“Health and Strength are found in communion with nature, the woods, the sea, the mountains.”



# Herald of Health

The Indian Health Magazine.

V. L. Mann, M. D., Editor

S. A. Wellman, Asso. Editor.

Vol. 3.

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No. 7.

## Journalism as a Menace to the Public Health

PERHAPS no one branch of the various professions, sciences, and trades has made greater progress in the past years than journalism. This is especially true as to the extent of its operations. A vast difference would be noted were we to compare the amount of literature put upon the market to-day with the amount published fifty years ago. This has, however, been made possible by the development along other lines, for the newspaper and the magazine without railroad, steamship, telephone, and telegraph must have been very provincial in their scope. To-day we are as conversant with the happenings on the other side of the globe as we are with the events that take place in our immediate locality.

Yet nothing has in it more possibilities of good or evil than the public press, the newspapers, and magazines. By it wars are precipitated, and ill-feelings engendered, and by it those wonderful developments of the present age in all lines of science are heralded to the world. It can soothe differences, or it can enhance ill feelings. It can make wonderfully for the uplift of man, or it can on the other hand destroy by its influence the very foundations of social distinctions between right and wrong. Were all the literature of the day uplifting in its trend what a power for good it would be. "As a man thinketh so is he," and that he may avoid that which will only lower his ideals and destroy his purity of thought man must

carefully choose his reading, for whatever we read will have its influence upon us.

As time passes the influence of current literature seems to be more and more toward evil. The stories in the popular magazines rate at a very low scale the manhood and womanhood of the world; they are the very embodiment of the frivolous. That common sense, broad-minded statesman, Benjamin Franklin, would behold with astonishment the magazine he founded were he to see it to-day. We do not need, however, to retrace our steps two hundred years to see the great changes made. Our own lifetime will suffice. Magazines which were launched with excellent material, food for the mind, soon are transformed into trash which panders to the lower senses of the people. Nor is it the fault of the author or editor that we are handed such trash for they give only what a depraved mental appetite demands.

When we behold the tales of bloodshed and immorality, the graphic stories of the sordid in life which are depicted, can we wonder at the number of cases of neurasthenia and nervous prostration which come to the physician. It is because of these conditions that it is becoming a national problem to care for the insane and the criminal; that Government is perplexed to handle the growing social purity problem. "As a man thinketh, as a man readeth, so is he."

Likewise the advertising in our papers tends to oppose the healthful development of our people. Patent medicines and their vendors have become so numerous that their proprietors do not hesitate, in the face of competition, to make out the most unscrupulous advertisements to insert in the literature which meets the public eye. Nearly every magazine or paper contains some such advertisements. It is a difficult matter teaching health reform when these much vaunted remedies, with their contents of cheap whiskey, opium, cocaine, acetanelid, etc., are advertised on the pages of all the popular literature.

Some prominent papers, otherwise good, allow to be inserted in their columns articles favouring the use of alcohol and tobacco written by men either in those trades, or with their minds wrapped by years of use of such intoxicants and opiates. Because such articles may possibly have been written by college graduates does not confirm their truthfulness. It is hard for man, no matter how well educated he may be, to condemn a habit which has made him its life-long victim and slave.

Other magazines have devoted a portion of their pages to articles by celebrated clinicians on various health topics. But we are disappointed when we turn to the back of the same magazine and find an advertisement of some headache tablets, soothing syrup, or other nostrum which has cost thousands their lives. Such an inconsistency; a life-preserving and a life-destroying influence in the same columns.

We admit that there are a few magazines which do not admit such advertising in their columns, but where there is now one which prohibits such material there should be a hundred. Our public periodicals should not be guilty of including in their columns medicines or drugs

of any kind which have not complied with the most rigorous tests. Two special bodies are appointed by the National Medical Societies of England and America which are weeding out the trash in medicines. These submit all drugs first to a chemical test and then they are tried upon animals. If they stand these two tests, they are handed out to responsible physicians who cautiously try them in their practice and publish the results. A list of drugs approved by these councils is published in the journals which represent the medical associations. They also publish a list of the fraudulent remedies. The list published by the British Medical Association is called, "Secret Remedies." The American Medical Association list is called, "The great American fraud," and the "Propoganda for Reform." Any journal that is interested in the welfare of humanity will refrain from advertising any drug or patent nostrum which has not withstood these tests.

Although we realise we cannot reform journalism, we place before our readers these cold, hard facts, and we trust to have some influence in helping people to see the necessity of selecting their reading matter. Will you not help in such an educational campaign?

---

"A GIRL may plan for herself the most dazzling of futures; she may become the most independent of women; but away back in her heart a little voice keeps telling her of marriage and home and children and love. She knows that is her destiny, she expects to fill it and if she misses it she has missed the fulfilment of her life: she has missed the greatest and fullest joy, the only real joy, some women think, that come to a woman. That is eternal truth, and every woman knows it, no matter what she says."—*Selected.*

---

WHEN the fight begins within himself, a man's worth something.—*Browning.*



# General Articles



## Water-Drinking With Meals

PURSUANT to a tradition of long standing, it is a common custom to forbid the drinking of water at mealtime. There was a time when such advice appeared most reasonable. The grounds therefor are summed up in the following quotation from a recent writer:

"We can lay down the definite and certain rule that it [water] should never be drunk at meals, and preferably not for at least one hour after the meal has been eaten. The effect of drinking water while eating is, first, to artificially moisten the food, thus hindering the normal and healthful flow of saliva and the other digestive juices; secondly, to dilute the various juices to an abnormal extent; and thirdly, to wash the food elements through the stomach and into the intestines before they have had time to become thoroughly liquefied and digested. The effects of this on the welfare of the whole organism can only be described as direful."

It is, of course, obvious that the insufficient comminution of food in the mouth cannot easily be compensated for by the succeeding muscular activities of the alimentary tract. But there are numerous individuals who drink water liberally at meals, yet do not follow this practice for the purpose of washing down the products of incomplete mastication.

Professor Hawk and his pupils at the University of Illinois have been investigating, during the past few years, the validity of the current attitude toward this question, with results quite at variance with the traditional idea. When the influence of water-drinking with meals was examined by direct experiment on man the alleged direful consequences were

found missing. There were no apparent ill effects. On the contrary, the general conclusion from all the findings was that "during water ingestion with meals there is a better digestion and a more complete utilization of the protein food and that this effect is much less marked with a small water ingestion than with a large one. It is also more or less permanent, with the result that in an individual accustomed to taking considerable water with meals the effects of decreasing or increasing the volume ingested are not immediately obvious." Not only is there a more complete utilization of the protein constituents of the diet attributable to ingestion of large amounts (1,000 c.c) of water with meals, but a "pronounced improvement in the digestibility of fat was observed." The decreased fecal output further involved a decreased excretion of carbohydrate and, what is most significant, a diminution in the output of bacterial substance in the stools.

Without attempting to emphasize Hawk's statement that "in general, the more water taken the more pronounced were the benefits," it may be pointed out that the essential feature, i. e., the absence of untoward results is, after all, quite in harmony with the trend of recent investigations of the gastro-intestinal activities. Water has been shown by Pawlow and others to stimulate, if anything, the flow of gastric juice and also to act as an excitant of pancreatic secretion. The dilution of the products of reaction is by no means necessarily detrimental to the progress of the chemical changes in the alimentary tract. One might therefore be prepared to admit as reasonable Hawk's

statement that "the beneficial effects noted are probably due to the stimulatory action of water on the digestive secretions, to the increased dilution which facilitates enzyme action and materially aids in absorption, and to a conservation of the intestinal energy involved in the secretion of a diluting fluid which is necessary when insufficient water is ingested."

Since there is a constant tendency, at least among persons whose knowledge of the given subject is slight, to carry to extremes conclusions derived from experimental data, and since such conclusions are sure to reach the laity sooner or later, it seems worth while to add a warning against the indiscriminate and excessive use of large quantities of water. While the ingestion of moderate quantities of water with meals may be harmless in persons with good gastric motility, since

the excess of water is rapidly expelled into the intestine, it is likely to be harmful in persons whose motor power is below par; and it is probable that there are many such who do not consider themselves ill enough to consult a physician. Furthermore, nothing that has been said is intended to lend any support to the American custom of drinking water that is ice-cold. The experiments of Hawk and his pupils indicate that our ideas with regard to the drinking of water must be revised, but we must still consider the individual case. We shall have to wait for reports of observations from a larger body of observers before it will be legitimate to put this revision into dogmatic form. In the meantime we may allow water more freely with meals, subject to the individual exceptions which experience reveals.

## A Factory In a Garden

G. H. HEALD, M. D.

THERE were so many objects of interest in connection with the meeting of the British Medical Association that it was impossible to see all. There was one, however, that for several reasons we desired to see, namely, the Cadbury Works, at Bournville, near Birmingham.

We went. We saw. We were convinced.

Cadbury Bros., Ltd., manufacture cocoa and chocolate, but that is another question. What interested us is the care manifested by this company for the welfare of its employees.

The exhibition of games, physical exercises, swimming, etc., was carried out as announced, and we learned that this outdoor work is part of the routine required of all young employees. There are magnificent recreation grounds for the men, and other grounds for the girls. There is an excellent outdoor swimming-

bath for the men and an indoor swimming-bath for the girls.

We recently visited a food manufacturing plant which we shall not name. We were shown every courtesy, and conducted carefully through all of the plant having to do with the making of cartons and packages, the filling and labeling of boxes; were taken into the engine rooms, and were shown even the adding machine, which was a curiosity to us, as it had been taught to reckon in pounds, shillings, and pence, and even in farthings. But as to the rooms where the foods were made, their cleanliness, etc., we can say nothing; for, doubtless by some oversight, those rooms were not shown us. We of course noted the wooden floors, the odour of the rooms, the dust in some places, the girls of twelve at work, etc., and we knew that these men accept conditions as they find them. It is a case of competition, and the



factory that can reduce its cost of production the most, stands the best chance to show a good balance-sheet. That is how it is usually regarded; and the health of the employees? O, that is a matter they should look after themselves. The factory is not a hospital.

But there are men who look at the health of the workers from a different view-point. There is no better proof of the interest of George Cadbury in the welfare of the working classes than his gift of a million dollars to found a model garden village from which he receives no revenue. In addition, there are in connection with the works of this company extensive recreation grounds and other facilities for self-improvement.

The Cadburys have always regarded two things as essential,—absolute cleanliness in the manufacture of their products, and the maintenance of the health of workers at the highest possible standard.

*They have also recognized that the best workers are those who are happy as well as healthy*, a truth which many other manufacturers would do well to appreciate.

Among the circumstances which here conduce to the happiness and the health of the employees are a beautiful situation in a most picturesque part of England; no pains spared to beautify the factory and its surroundings; buildings constructed with the health of workers kept prominent; workrooms spacious, well-lighted, and well-ventilated; food furnished in commodious and well-appointed dining-rooms, at cost price.

Not only is everything possible done to prevent disease by hygienic measures, but the full time of two physicians, two dentists, and a corps of trained nurses is at the service of the employees. There is a dispensary and a consulting-room on the premises, a rest-room for those temporarily ill, and a convalescent home

situated in the Herefordshire hills for those needing recuperation. There is also a well-trained ambulance corps composed of employees.

The combined area of the two recreation grounds laid out to meet the athletic needs of the employees is twenty-three acres. There are six cricket teams, eleven football teams, and two hockey teams. Tennis and bowls have their allotments. Physical-culture work is required of all boys under eighteen on the time of the firm. The girl's sport, including cricket, hockey, tennis, net ball, and Swedish drill, is under fully qualified gymnastic teachers.

Employees are encouraged to obtain an education, and attendance at local evening schools is required of all under eighteen years of age, the fees being paid by the firm. The arrangements for the girls include a thorough training in housewifery, as most of the girls leave to be married. Gardening classes, for both boys and girls who cultivate their own allotments, are rented to employees at a nominal cost. The entire aim of the company is to increase in every way the efficiency of its employees, for it is realized that the interests of the employees are the interests of the company.

The employees are also encouraged to improve their musical talents. A first-class orchestra, an excellent brass band, a mandolin band, and a large chorus of well-trained voices constitute part of the musical talent. During the season, concerts are held at which audiences often exceed two thousand.

But we must cease somewhere without attempting to detail all the activities of this company for the welfare of its workers. It may be stated, in conclusion, that a savings account is maintained, allowing five per cent on all deposits by employees. A pension fund is also main-

tained. By contributions to this fund, all male employees may draw pensions at the age of sixty. For every shilling contributed by employees, the firm contributes a like amount; it also contributed £60,000 to increase the pensions of older employees, coming on the pension roll early in its existence. A pension scheme for women employees has been inaugurated this year, providing pensions at the age of fifty.

The company offers prizes for sug-

gestions. About six thousand suggestions are received yearly (an average of twenty a day, or about three a year for each employee), a large proportion of which are utilized.

It should be remembered that the Bournville garden village was originated, and, in fact, given outright, by Mr. George Cadbury, a member of the firm. About forty per cent of the Bournville houses are used by employees of the Cadbury works.

## The New Child

Since God to folk of six or seven

Gives strength with which no King may  
strive;

Since half the sweetness under heaven

He gives to people under five.

\* THE problem is to establish lastingly the original sweetness and strength!

A fitting environment for growth on the physical plane is the first essential. It is said that nearly every child comes into the world sound, that it is healthy and well-nourished at birth. Yet we allow about half our little ones to die early or to live crippled in their manhood, womanhood and parenthood.

Is this kind of tissue with which to build our New Commonwealth? God forbid! What do you say to it, you little mothers and fathers, in being and about to be?

You are thinking of heredity and the past. Think earnestly rather of the immanency, the immediacy of the present out of which you are fashioning the future!

How is it possible for you to rear a clean and healthy child amidst the conditions of your multitudinous slum? Bear in mind that this child is *yours* and *your wife's* as well as the one born of you two!

Again, do you expect to breed well-cared-for and breast-fed babies from mothers who are tempted to toil overmuch

in factories or elsewhere? Are you not partly responsible for thus depressing the wage-earning power of the man, and, what is worse, destroying the child and its home? Is not the labour of the poor woman, in bringing to birth and fostering the child, arduous enough for the State?

We profess to believe that the vitality of the country depends on the health of the children, and yet protect conditions which are detrimental alike to life and health. Out of less than two millions of children we find 250,000 ailing and defective, and London alone sent 33,000 for hospital treatment!

What, then, do we want? First individual inspection and sorting, then individual care, and finally, individual education.

During school days we wish a better working understanding between teachers and parents, and more harmony between school and home life. Fuller opportunity for the free play of consciousness, so that each child may be encouraged to think and reason for itself—to find and realize itself—and thus arriving at that 'education which is revelation.'

The Teacher will *suggest*, rather than *dominate*, tentatively *lead*, rather than *load* the young mind, will cease to cultivate memory at the cost of reasoning and reflection. We crowd the mental floor with undergrowths which cannot develop

into shapely forms, and so obscure the the natural light which should directly 'shine into the heart of a child.'

Our 'educational' artifices despoil the child-nature of its spontaneity, and induce, like the excessive use of books, a state of semi-paralysis. A few strong ones win through the muddle, more or less lamed; but what of the barracked majority systematically neglected?

There can be no radical cure until the unseen slum-child is deemed as dear as the petted child seen daily in the park.

As a social community, it is high time that we cultivated a communal conscience and ceased our collective sinning.

Work and play, alternating, will each

give joy; and a children's playing field will adjoin every park, every village school will have its open-air side, and a bathing place not too distant in this land of copious rainfall. And a school-garden also, whilst Nature-study rambles with a trained guide will be frequently arranged.

The vital problem shall ever be—How best to make the coming generation physically and morally better than ourselves. And the love of the steadfast 'mothers of children'—these gracious and fecund sisters of our race—shall yet combine with the mother-love in all women to embosom, like an atmosphere the new child—every new child!—*Thomas Pole, in Herald of the Golden age.*

## Alcohol and the Human Body

THE members of the Society for the Study of Inebriety were fortunate in securing Professor G. Sims Woodhead, of Cambridge, to give the fourth lecture in memory of the late Dr. Norman Kerr. Professor Woodhead gave a most interesting and instructive account of a series of experiments which he has been carrying on recently for the purpose of determining the influence of small doses of alcohol upon the body temperature. He made observations on both the internal temperature and the temperature of the skin, and was able to show that after as small a dose as fifteen cubic centimetres (about half an ounce) of alcohol taken in water there was a distinct rise in the surface temperature, and at the same time a distinct fall in the internal temperature. Of course, this is not a new fact to physiologists, for it has long been known that alcoholic beverages, even in small quantities, cause the vessels of the skin to dilate, drawing the blood to the surface, and thus increasing the temperature of the skin at the expense of the vital internal organs, which suffer a corresponding loss.

This explains why a man who is suffer-

ing with cold thinks he is warmed by taking a glass of whisky and soda, or some other alcoholic drink. There is a glow of warmth in the skin, but at the same time the internal organs are depleted of their necessary blood supply, and there is danger of chill, which might cause bronchitis, pneumonia, inflammation of the kidneys, or some other grave inflammation. These facts have long been known, but we believe this is the first time that they have been demonstrated in a straightforward scientific way.

The Society for the Study of Inebriety is purely a scientific body, and is not concerned with propaganda of any sort. Its sole purpose is to ascertain the truth with regard to the effects of alcoholic beverages upon the human body. All temperance reformers and total abstainers owe a great debt to Professor Woodhead and the other members of the society who are giving such thorough-going, scientific study to the numerous problems connected with the use of alcohol.—*English Good Health.*

"HE that is good at making excuses is seldom good at any thing else."

## Bombay Sanitary Association

IN an address before the Bombay Sanitary Association, H. E. the Governor of Bombay, spoke of what the association had accomplished and the future it had before it. Some of our readers may have noticed this speech elsewhere but in order that all may be benefited by these words on "Indian Sanitation, as every word is of practical import we quote in full rather than in the form of an abstract:

Gentlemen,—More than four years have passed since I presided at a meeting of the Bombay Sanitary Association, and I am glad to have this opportunity of meeting you again. In February 1908, I tried to lay stress upon the need for the work which the Association is undertaking and upon the great increase of the prosperity and happiness of our people which might be attained if compliance with the laws of health could be better secured. Since that time it is certain that there has been considerable progress in various directions. Efforts are being made to instill the elements of sanitation into the minds of the children in our schools. Great advances have taken place, and are still proceeding, in the provision of a pure water-supply in the towns of the mofussil. There have also been signs during large gatherings at fairs of an increasing readiness on the part of the people to accept and act upon the arrangements made to safeguard them against infection, while inoculation has made way, is more widely trusted, and has found more advocates. All this is encouraging in a country where we have to try to lead the people quietly and gradually into compliance with natural laws vital to their well-being and where the strong sanitary measures elsewhere enforced are not possible. . . . With regard to the association His Excellency observed:—Its health visitors have given useful advice to thousands of people. Its classes, lec-

tures, and leaflets have sown seeds in hundreds of minds. Its prizes have stimulated many people to acquire some knowledge of sanitary laws. Admitting that some of the good seed may have fallen on stony ground, surely it is quite certain that much of it is bearing and will continue to bear good fruit. Although, therefore, you have not been able to enlarge the scope of your operations as we all wish, we may be sure that an impression, which must tend to broaden and deepen, has been made upon the prevailing ignorance and apathy in regard to elementary sanitary laws against which we have to contend.

The report contains several points of interest. The excellent suggestion of giving instruction to the caretakers of chawls has been carried into effect, and I note that 50 Bhayas have attended a series of useful lectures which must have helped materially to qualify them for their duties. If a regular profession of qualified caretakers can thus gradually be brought into existence, an improvement of the sanitary condition of the dwellings of the poor would certainly be effected. I am glad to see that a magic lantern, which will greatly increase the interest and the impressiveness of your lectures has been purchased, and the idea of utilizing the Cinematograph for educational purposes in connection with sanitation is excellent. I have no doubt that the "Health Section" at the Old Bombay Exhibition must have helped to spread sanitary ideas and agree that a permanent Museum freely accessible to the public would be an advantage. Mrs. Lennon's report of the conditions under which thousands of babies have to begin their struggle for existence goes far to explain the terribly high infant mortality in Bombay, and shows how intimately public health is connected with

the habits of the people. So long as it is thought advisable to exclude light and air and to render the infant's first efforts to breathe as difficult as possible, improved housing cannot alone secure all the benefits that may be expected from it. The latest report on "Plague Investigations in India" gives a striking instance of the effect of customs upon the prevalence of this disease. Eastern Bengal and Assam have long been known to be comparatively free from plague, and careful enquiry now proves that their freedom is due mainly to the scarcity of rats in the houses of the people. But the scarcity of rats can be plainly traced to the habits of people, who show "neatness and tidiness" even in their huts of matting. The Bengali, it is stated, takes a pride in his home and even his kutchas are so constructed as to give no shelter for rats, while he has acquired the habit of storing his goods and his foods in orderly fashion. The report gives typical photographs of villages which remain immune and of others in which plague is prevalent. The contrast is striking and it is clear that the difference is not due to increased expenditure, but to greater personal care and orderliness of mind. Plague creates sad ravages among the people who are much more prosperous than those of East Bengal, and it is not too much to say that a little trouble in rendering food inaccessible to rats and in denying them shelter, would produce a great diminution in plague mortality.

"The tyranny of custom," on which Bacon dwelt with characteristic wisdom and directness, is nowhere more rampant than in India, and it is to customs, essentially bad but deeply ingrained, that insanitary conditions are largely due. And precisely because customs are to a great extent responsible for the spread of preventable disease in India the difficulties which an Association like this has to

encounter are especially formidable. To change the traditional habits of a huge population is a gigantic task, and one which entails infinite patience, combined with unflagging persistence. I think there is a tendency to believe that universal education is capable of producing the immediate amelioration of sanitary conditions which is required, and that we should, therefore, concentrate effort on this object and regard such special work as that on which you are engaged as subordinate if not premature. Perhaps this tendency may account partially for the limited measure of support which this Association receives. The experience of other countries has, however, plainly shown that free and compulsory education does not by any means obviate the necessity for special sanitary propaganda or for sanitary measures of a drastic character. It has not wholly banished the ideas that air and light should be denied to infants and that ventilation is a thing to be avoided. Instances present themselves frequently which prove that, special precautions apart, insanitary habits could widely and dangerously assert themselves. On the other hand, general education may have helped to secure tacit acquiescence in proceedings which would be bitterly resented as tyrannical in India. It may, therefore, surely be accepted that Associations such as this are urgently needed, and that while we should, as we do, press the extension of education as rapidly as possible, we must not neglect other and more direct means of instilling the elements of the laws of health into the minds of the people. For this purpose more funds are manifestly needed. If the income of this Society could be doubled, its good work would increase in greater proportion. I believe also that by more personal service much could be accomplished.

To Dr. Turner, who, in spite of all his heavy official duties, is able to be the

mainspring of the Association and to all who are assisting by giving their services to the good cause, the warm thanks of the Community are due. Are there not others who have or could acquire the necessary knowledge and who have spare time on their hands, which might be devoted to the objects of the Association? I watch with deep interest the good work of the Seva Sadan and of the Servants of India. These bodies are giving valuable personal service in helping to mitigate distress due to the famine. When normal seasons return to Gujarat and Kathiawar, might not their energies be directed towards saving the poor people from death and disease arising from causes which are often preventable if some of the simple laws of nature could be inculcated and the inevitable results of violating them could be pointed out? The work which this Association seeks to carry on is not of a showy character. As I have said, the effect must be very gradual and striking success is not to be expected. Yet surely

all to whom the preventable suffering of humanity powerfully appeals must wish to play some part however small in combating the ignorance which is yearly undermining the health and causing the death of large numbers of our people. I have no doubt that, if the work of this Association were more widely known, its Membership would increase and support would be forthcoming from the great employers of labour whose ranks contain many generous philanthropists who are ready to help all good causes. I suggest therefore that you should issue an appeal explaining briefly the nature and extent of the work you are carrying on and your need for assistance. This is the last time that I shall be able to preside at an annual meeting of the Bombay Sanitary Association, but I am sure that my successor will take an interest in its welfare and as your Patron, soon to retire, I cordially wish you success and increased recognition in your valuable efforts to cope with a real public need in this great city.

### “On Guard”

WHEN “war reaps its wide desolation” and mankind fights mankind and masses of humanity are sacrificed upon the altar of the God of War, nations defend the action on patriotic motives, saying that a nation's honor must be protected. When a cataclysm comes and myriad of souls are plunged into eternity, the sympathetic chords of countless hearts are struck and silvery music is poured forth. Funds come from the rich and the poor to save from further destruction those who have been rendered homeless and destitute by either God or man.

Daily there is a war going on in which a myriad of microbes are aiming to devastate countless homes and the toll of death goes merrily on without any attempt on a huge scale to prevent the human sacrifice.

Preventive medicine to-day stands at the door of every home ready to bar out the invader when Death with fearful mien would enter. The medical profession is on guard to protect the homes from attack by day or by night, in season, and out of season but the homes are not ready to perceive the distinct advantage that would accrue to them if their sanitarian, educator and medical guide were to stand constantly on guard to preserve the health of the home, instead of making evident his strength and force and power only after the dread invasion has taken place. The door must be closed in the face of grim disease and no chill foot of Death must be allowed to cross the threshold. The battle is more easily fought beyond the sill, and anxiety and grief are twin foes that render the battle within the home more exhausting.

Preventive medicine guards the home and its victories will overbalance those of war.—*Medical Review of Reviews.*

# Anatomy and Physiology

## The Muscles

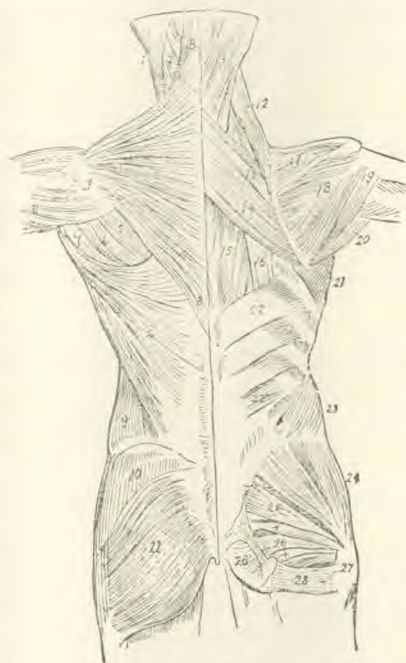
Of the muscles of the head and face we will mention first the occipito-frontalis. You will note that the prefix occipito has relation to the occipital bone and the suffix frontalis to the frontal bone showing that the muscle extends from the posterior or back part of the head (occiput) to the eyebrows. All muscles derive their names in this way and this makes it easier for us to remember the names of the muscles.

The occipito-frontalis is a broad musculo-fibrous layer that covers the vertex and blends in front with the muscles of face, at the sides with the fascia or tendon of the temporal muscles, behind to the occipital bone. This muscle raises the eyebrows and skin of the nose and causes the transverse wrinkles of the brow. The whole scalp may be moved forward and backward by the action of this muscle.

The muscles of the face are small being divided into various groups and give expression to the face. We might mention

the muscles of mastication. The masseter, temporal, the pterygoids, and buccinator also the muscles of the eye, the four recti (external, internal, superior and inferior, and the obliques superior and inferior.) The different groups of the muscles of the face have different actions. Some open and close the mouth and the eyes.

The muscles of the neck are small and again arranged in groups. They span the distance from the head and face to the trunk. They help us in swallowing and speaking. They also move the tongue and help in the movements of the head.



MUSCLES OF TRUNK FROM BEHIND

- 1 Sternomastoid. 2 Splenius. 3 Trapezius. 4 Latissimus Dorsi. 5 Infraspinatus. 6 Teres minor. 7 Teres Major. 8 Deltoid. 9 External Oblique Abdominal. 10 Gluteus Medius. 11 Gluteus Maximus. 12 Levator Anguli Scapulae. 13 Rhomboideus Major. 14 Rhomboideus Minor. 15 Part of Longissimus Longi. 17 Supraspinatus. 18 Infraspinatus. 19 Teres Minor. 20 Teres Major. 21 Serratus Magnus. 22 Internal Oblique. 23 Gluteus Medius. 25 Pyramiformis, and Superior and inferior Gemelli. 26 Portions of obdurator internus. 27 Tendon of obdurator internus. 28 Quadratus Femoris.

The muscles of the back are arranged in five layers but we will note only two of the superficial layers. See the illustration for this group of muscles. The trapezius is large triangular muscle situated at the upper and back part of the neck and shoulders. Its attachments are the

occipital bone of the head, the shoulder and upper arm-bone and the upper part of

the spinal column. It draws the shoulders upward, backward, and sideways.

The latissimus Dorsi extends from the hip bone and the six lower dorsal vertebrae to the humerus, the upper arm bone. It draws the humerus downward and backward while rotating it inward, it raises the lower ribs in forcible respiration (breathing in); also assists other muscles of the chest in climbing, pulling, etc.

The muscles of the abdomen (belly) are the external and internal, oblique and transversalis rectus, pyramidalis and quadratus lumborum. The obliques and transversalis are arranged so that they overlap each other and their fibres run in different directions. This is to make the abdominal wall more stable. The obliques and rectus extend from the ribs down to the hip bone in front and laterally coming together in the median line in front and form what is called the linea alba (white line).

The muscles of the thorax are those concerned in respiration, the most important being the intercostals.

There are a number of muscles that span the shoulder joint and assist in the movement of the arm on the body. The deltoid is the most prominent and is that large thick muscle that forms the contour of the shoulder. There are two muscles of this region that are so long that they span both the shoulder and the elbow joint. The biceps arises from joint on the shoulder bone (scapula) and is inserted into the upper part of one of the bones (radius) of the forearm.

The triceps arise from three points one on the scapula and two from the humerus and is inserted into another bone (ulna) of the forearm. The biceps flexes the forearm while the triceps extends it.

The muscles of the forearm are twenty in number arranged in groups and extend from the lower part of the arm and upper part of the forearm and are inserted into

the small bones of the wrist, hand, and fingers. Some of these muscles are located on the radial side while others are on the ulna side but anterior and posterior (front and behind.) Their action is to flex, extend, rotate, externally and internally, the forearm as well as to aid in the movements of the wrist and fingers. The muscles of the hand aid in the movement of the fingers.

The muscles of the lower extremity are arranged similarly to the upper extremity. The pelvic girdle and hip joint of the lower extremity corresponds to the shoulder girdle and the shoulder joint of the upper extremity. Many large and small muscles extend from the pelvic girdle to femur or (thigh bone). One group in particular extends from the pelvic to one of the bones (tibia) of the leg. It is called the quadriceps extensor, the great extensor of the thigh, because it has four points of origin, three of these coming from the upper part of the femur a group of three particularly long muscles (biceps, semi-tendinosus and semi-membranosus) take their origin from a prominence on the ischium (a part of the pelvis) and traverse the whole length of the thigh and are inserted into the tibia.

The fleshy part of the hip is made up principally by the *gluteal* muscles, three in number. These various muscles support the trunk on the thigh, flex, extend, and rotate the thigh.

Those making up the chief bulk of the calf of the leg are the gastrocnemius and soleus. They unite and form what is called the tendon of Achilles and is inserted into one of the bones of the ankle, or what we might call the heel bone, the os-calcis. The muscles of the foot are similarly named and located to those in the hand.

The perineum has groups of muscles that are implicated in the function of the genital system and bowel.



This gives a very short survey of the different groups of the muscles of the body. This will give us some idea what it means to exercise systematically all of these groups every day in order to keep them in proper shape.

## Diet and Skin Diseases

G. H. HEALD, M. D.

IN the *Journal of the American Medical Association* of Aug. 26, 1911, Dr. L. Duncan Bulkley, one of the most noted and most successful skin specialists in the country, who has had marked success in the treatment of certain skin diseases by means of a strictly vegetarian diet, has a paper in which he recounts his experience with psoriasis in an extensive series of cases, extending over a long period of time. In this paper he makes the following remarkable comments:—

"My experience, some of it dating back twenty-five years, shows conclusively that not only does a meat diet increase psoriasis, but that an absolutely vegetarian diet is of the very greatest benefit in this disease, and in certain cases is capable of causing the disappearance of a long-standing eruption, without the use of any internal or external medication whatever."

"Vegetarian diet for health is no new proposition, and needs no defence nor explanation; the literature is extensive, and its positive value has been frequently demonstrated. All are aware that repeatedly vegetarians have far outstripped meat-eaters in athletic contests, while the reverse is almost unknown. The mass of human kind has always subsisted largely or entirely on the products of the ground, and in animal life all work is done on food from the vegetable kingdom.

"On the other hand, the consumption of much meat is of relatively modern date, with some exceptions, and is particularly common in cities, the mass of workers in rural districts subsisting chiefly on the vegetarian kingdom.

"Nor need we dwell long on the injuri-

ous effects of a too highly nitrogenised diet on the human system, which have long been recognised and have had able exponents. All are familiar with the necessity of curtailing a meat diet in many conditions of the system, and writers have repeatedly called attention to its influence in the production of cancer. The relative absence of cancer among the natives in rice-eating countries, which I also observed in the Far East, is striking evidence in this direction."

"Time and again patients who have relapsed into free meat-eating have returned with a fresh outburst of eruption, or great aggravation of any that had remained; and they intelligently recognised the cause, and have willingly taken up the vegetarian diet again, because of the great benefit which they had previously derived from it.

"The question arises as to the length of time it is necessary to continue the vegetarian diet. I am accustomed to tell my patients that this may be indefinite; for if a faulty nitrogenous metabolism and excretion are at the bottom of the eruption, as they seem to be, this may recur whenever the intake of proteids exceeds the power of the system to handle them.

"In some instances a return to a moderate mixed diet has not seemed to increase the tendency to the eruption, but in very many cases it has been recorded that any indulgence in a great amount of nitrogenous food has caused a return to skin lesions. So that we must infer that with a certain small proportion of human beings, the organs are not able properly to assimilate much proteid substance."

"There are some articles from the vegetable kingdom, however, which have to be guarded against. Alcohol in any form, even the lightest beer, is prejudicial, and in some instances I have found better results when I excluded coffee, chocolate, and cocoa."

# : Mother and Child :

## The Use of Drugs at the Family Table

MARY W. PAULSON, M. D.

IN dealing with sick people we are forcibly reminded of the evil effects of tea and coffee upon the human organism. Frequently patients consult a physician for medical aid who have sallow skins, who complain of palpitation of the heart, or are depressed.

Upon making inquiry into their habits, they admit that they use freely tea and coffee. The wife or mother of the home may say: "I am never hungry for breakfast, but always take my cup of coffee. I could not do my morning work without it, but with it I am able to accomplish my work."

People of such habits must sooner or later visit the clinic or physician's office, because their unnatural demands upon nature finally are overdrawn, and there follows a reaction. It is very truly said:

Tea and coffee produce an immediate effect. Under the influence of these poisons the nervous system is excited, and in some cases for the time being the intellect seems to be invigorated and the imagination to be more vivid. Because these stimulants produce for the time being such agreeable results, many conclude that they really need them, and continue their use. But there is always a reaction. The nervous system, having been unduly excited, borrows for present use from its future resources of strength. All this temporary invigoration of the system is followed by depression. In proportion as these stimulants temporarily invigorate the system, will be the letting down of the power of the excited organs after the stimulus has lost its force.

Chemists have examined for us the chemical and nutritive values of tea and coffee. Their report is as follows:

	<i>Black Tea</i>	<i>Green Tea</i>
Water	8.20	5.96
Caffein	3.24	2.33
Albumin (insoluble)	17.20	16.83
Albumin (soluble)	0.70	0.80
Alcoholic extract	6.79	7.05
Dextrin	—	0.50
Pectin and pectic acid	2.60	3.22
Tannic acid	16.40	27.14
Chlorophyl and resin	4.60	4.20
Cellulose	34.00	25.90
Ash	6.27	6.07
	<i>Roasted Coffee</i>	
	<i>(Mocha)</i>	
Caffein		0.82
Saccharine matter		0.43
Caffeic acids		4.74
Alcoholic extract (nitrogenous and colouring matters)		14.14
Fat and oil		13.58
Legumin		11.23
Dextrin		1.24
Cellulose and insoluble colouring matter		48.62
Ash		4.56
Moisture		0.63

In other words, an ordinary teacupful of tea as it is usually drunk contains fifteen grains of solid matter, chief of which are caffein, tannic acid, and volatile oil.

An ordinary cup of coffee contains 1.7 grains of caffein and 3.24 grains of tannic acid. The longer the infusion of these the greater the per cent of tannic acid. This is not true of caffein, as it is easily dissolved.

By studying carefully these figures one can see that in each cupful of tea or coffee the user gets a fairly good-sized medicinal dose of caffein; also that these drinks can not be considered foods. Hutchison says on this subject:

All experiments go to prove that caffein tends to increase rather than diminish

tissue waste. It does not prolong life in starvation, although it may perhaps lessen the feeling of hunger. . . . We may conclude, then that tea and coffee are in no sense foods, in that they can neither build up the tissues nor provide them with potential energy, though they may perhaps act the parts of lubricants in the machinery of the body by diminishing nervous fatigue. It is no doubt that it is the subjective feeling which has led to the very extended use of these beverages by men in all ages and in all countries.

Since they are not foods, what are their effects upon the human body? The principal and active constituents of tea and coffee are caffein, tannic acid, and volatile oil. The effect of caffein upon the body is to stimulate. It exerts its effects upon the central nervous system even more than upon the heart. It removes the sense of fatigue, but produces sleeplessness. It produces an increased heart action, which shows itself by palpitation of the heart, a symptom which is so annoying to many people. In small doses caffein raises arterial tension. For this reason we often find patients who use coffee, suffering from high blood pressure, a symptom which produces apoplexy. In large doses caffein is a depressant to the heart and also to respiration. A noted author of materia medica (Potter) makes this statement:

Used to excess it disorders digestion and causes functional disturbance of the nervous system, shown by headache, mental confusion, and palpitation of the heart. It increases secretion, blunts sensation, exerts reflex excitability, increases mental activity, and may produce insomnia and great nervous restlessness. It first briefly stimulates the heart and raises arterial tension, but soon depresses both.

Another active constituent of tea and coffee is tannic acid, which, as we have noticed, is contained in both in large percentage. The effect of tannic acid on salivary and gastric digestion, is invariably to retard stomach digestion, and in strong infusion of tea it acts as an irritant to the

mucous membrane of the stomach, especially if the stomach is empty. The same is true of the volatile oils contained in both tea and coffee, particularly coffee, so that it may be possible for these drugs, taken upon an empty stomach, to keep up a condition of chronic gastric catarrh.

Tannic acid is a powerful astringent. It precipitates pepsin and coagulates albumin, impairs digestion, stops peristalsis, and causes constipation. Its continued use disorders digestion, irritates the mucous membranes, and produces emaciation.—Potter.

One can readily see that instead of taking a food or even something which aids the digestion of food, a drug is used at the table producing the above results, which are certainly not desirable.

We then can understand how tea draws upon "the strength of the nerves and leaves them greatly weakened. When its influence is gone and the increased action caused by its use is abated, then what is the result?—Languor and debility corresponding to the artificial vivacity that tea imparted. When the system is already overtaxed and needs rest, the use of tea spurs up nature by stimulation to perform unwonted, unnatural action, and thereby lessens her power to perform and her ability to endure. The influence of coffee is in a degree the same as tea, but the effect upon the system is still worse. Its influence is exciting, and just in the degree that it elevates above par it will exhaust and bring prostration below par. Tea and coffee drinkers carry their marks upon their faces. The skin becomes sallow and assumes a lifeless appearance. The glow of health is not seen upon the countenance."

The apparent strength which tea and coffee give is false strength and not natural strength. In attempting to stop their use, particularly that of coffee, one suffers from headache, which can be relieved by the application of hot and cold to the head. The heat is applied over the eyes

and forehead and sides of the face, the cold in an ice-bag at the back of the neck. Oftentimes this gives relief in a very short time, provided the patient is put to bed and kept quiet and the feet are made warm by a hot foot-bath if necessary. If the determination to stop the use of these drugs is persisted in, in a few days the tendency to headache will disappear and the patient will feel much brighter and clearer than before.

A habit which is deleterious to the action of the human body certainly should be dis-

continued. Some are afraid to do this, because they believe it would result disastrously with them. Such is not the case. The continuance of these hurtful stimulants is destroying nature's fine machinery, and battering down her fortifications erected against disease and premature decay. The same God who requires that we present our bodies a living sacrifice, is able to help us to overcome the effects of hurtful habits, in order that we may preserve our bodies in the very best condition of health and thus do better service for Him.

## The Reasons for Feeble Children—Heredity

IN this age of degeneracy, children are born with enfeebled constitutions. Parents are amazed at the great mortality among infants and youth, and say, "It was not formerly so." Children were then more healthy and vigorous, needing far less care than is now bestowed upon them. Yet with all the care they now receive, they grow feeble, wither and die. As a result of wrong habits in parents, disease and imbecility are transmitted to offspring.

After their birth they are made very much worse by carelessness and inattention to the laws of their being. Proper management would greatly improve their physical health. But parents, considering the miserable inheritance already received from them, seldom pursue a right course toward their infant children. Their wrong course results in lessening their children's hold on life, and prepares them for premature death. These parents had no lack of love for their children, but this love was mis-applied. One great error of the mother in the treatment of her infant is that she every often deprives it of fresh air, that which it should have to make it strong. It is a practice of many mothers to cover their infant's heads while sleeping, and this, too, in a warm room, which is seldom ventilated properly. This alone is sufficient to greatly enfeeble the action of the heart and lungs, thereby affecting the whole system. While care may be needful to protect the infant from a draught of air, or from any sudden or too great change, especial care should be taken to have the child breathe a pure, invigorating atmos-

phere. No disagreeable odour should remain in the nursery, or about the child. Such things are more dangerous to the feeble infant than to grown persons.

Mothers have been in the practice of dressing their infants with regard to fashion instead of health. The infant wardrobe is prepared to look pretty, more for show than for convenience and comfort. Much time is spent in embroidering, and in unnecessary fancy work, to make the garments of the little stranger beautiful. The mother often performs this work at the expense of her own health, and that of her offspring. When she should be enjoying pleasant exercise, she is often bent over work which severely taxes eyes and nerves. And it is often difficult to arouse the mother to her solemn obligations to cherish her own strength, for her own good, as well as that of the child.

Show and fashion are the demon altars upon which many women sacrifice their children. The mother places upon the little morsel of humanity the fashionable dresses which she has spent weeks in making, which are wholly unfit for its use, if health is to be regarded of any account. The garments are made extravagantly long, and in order to keep them upon the infant, its body is girded with tight bands, or waists, which hinder the free action of the heart and lungs. Infants are also compelled to bear a needless weight because of the length of their garments, and thus clothed, they do not have free use of their muscles and limbs.

MRS. E. G. WHITE.



## Legumes

GEORGE E. CORNFORTH

LEGUMES is a name given to the bean family, which includes various kinds of beans, peas, lentils, and peanuts. The name pulse is also applied to this class of food substances. Legumes differ from other vegetable foods in that they contain a much larger proportion of protein, or nitrogenous food element, which is the muscle-, nerve-, and tissue-building substance, the food element which composes lean meat.

In fact, the dried legumes contain a larger proportion of this body-building material than any other food, not excepting meat. This fact, combined with the fact that they are very cheap, makes them of great value where people must be fed at small expense.

One writer of authority upon the subject of foods says: "As a cheap and

efficient method of supplementing the deficiency in nitrogen in a purely vegetable diet, their use is strongly to be recommended, and it is a pity that they are not more largely taken advantage of by those to whom economy is of importance; for unquestionably the pulses are among the cheapest of foods, and a given sum will yield more protein if invested in them than in any other way." With beans at five cents a pound and

round steak at twenty cents, or sirloin at from thirty cents to thirty-five cents a pound, you can buy as much nourishment for ten cents when you are buying beans as you can buy for one dollar when you are buying meat. And of the protein food element, which is the essential food element of meat, you can buy as much for ten cents when you are buying beans as you can get for fifty cents when you

are buying meat. And when you buy the protein of the beans for ten cents, you get the starch thrown in, which is a valuable food element and which you do not get in the meat.

The nitrogenous substance of legumes is called legumin. Its resemblance to the casein of milk enables the Chinese to make cheese from beans.

Next to cereals the legumes are the most valuable and the most extensively used of vegetable foods. They are largely used where people, either from choice or necessity, make little use of meat. The legumes have been used for food from very ancient times. They have stood the test of time as a food product. They are noted in history all down through the ages. The red pottage for which Esau sold his birthright was made from red

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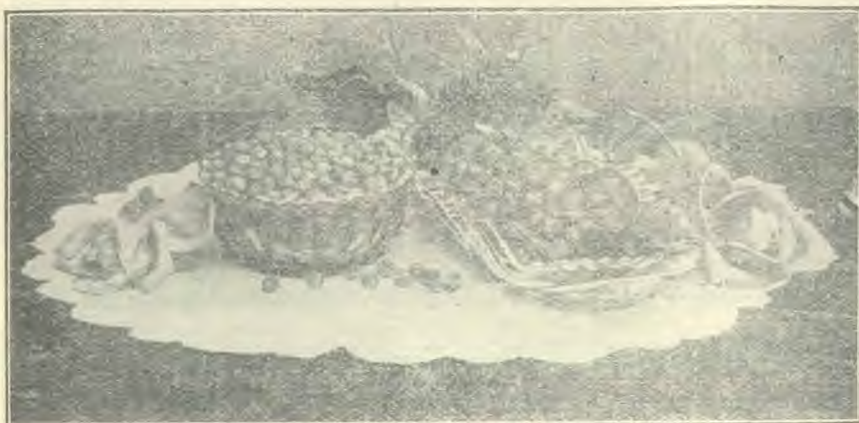
"The work of the skilful cook is as potential for human welfare as is the work of the physician or the surgeon, for often culinary skill may save us from the physician's potion or the surgeon's knife. But is there in the profession of cooking, room for as deep study and investigation, room for such profound knowledge, as in the profession of medicine or surgery? Is there not equal responsibility of life and death? Certain it is that more people die of bad cooking than of either bad medicine or bad surgery. Cooking is a noble science, and need not blush among the other sciences."—*Youth's Companion*.

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lentils. It was pulse upon which Daniel and his companions grew so fat and fair at the court of the Babylonian king. Beans, lentils, and pulse are mentioned as forming a part of the diet of King David; and Ezekiel was instructed to mix them with cereals and other seeds in making bread.

Legumes formed a large part of the diet of the builders of the pyramids. Beans were used by the Romans in voting and in certain ceremonies. When America

was discovered, the Indians were found cultivating beans and peas. Champlain in 1604 describes the planting of what he calls the "Brazilian bean" in the region of the Kennebec. And to-day "Boston baked beans" are a staple article of diet. But why should we confine ourselves to Boston baked beans when there is such a variety of legumes, and they are all as deserving of common use as this one popular dish? In fact, peas and lentils are more easily digested than beans.



CHICK-PEAS BEFORE AND AFTER COOKING

## Choice of Food for Family

MANY families have only a limited amount for their entire living, yet they live—and to all appearances are well, healthy and happy. The commercial depression of the last two years or so has taught many of us valuable lessons in economy. It has made us use up the materials that heretofore have found their way to the garbage-bucket; so far it has benefited us.

In all provision for the table we must consider the occupation and habits of each member of the family; even on a family table a variety must be given to suit the various demands. A housewife must have fore-thought and a knowledge of how to buy and cook, and how to utilize every

scrap of food that is left over. To feed a family correctly she should know the shortcomings in health of each member of her family, so as to provide food which will relieve the body of energytaxing work in digesting that which to him is not profitable. Then, too, the family must have food to build muscles, nerves, so as to do the greatest amount of work with a minimum of bodily energy.

Getting rid of the waste from overeating is perhaps one of the greatest taxes on nature. An office man is handicapped at the start, because he must have more easily digested forms of nitrogen than the labourer needs, and these are expensive,

*(Concluded on Page 144)*

# Abstracts

## Mechanical Efficiency

THE human organism is a delicately balanced machine, called upon to perform work varying inconceivably in nature and degree. Mental, visceral, and muscular work must be performed under varying conditions and changing speeds.

In health there is a minimum of friction and a maximum of efficiency. Any departure from this state of correlation, wastes energy and lessens efficiency. No part can be strained without affecting the whole.

For esthetic reasons the preferred standing posture has long been that in which the individual, without rising on tiptoe, makes himself as tall as possible, with head erect, chin in, shoulders back, chest high, and abdomen flat. A broader comprehension of anatomy and physiology has now taught us that this is the attitude of greatest efficiency. When the body is erect, the various viscera rest on ledges, or shelves, formed largely by portions of the abdominal walls. Their downward thrust is received by the lower portion of the anterior abdominal wall. Hence, the importance of firm abdominal muscles.

Deformities which are not congenital or the result of accident represent the extreme of some normal motion. The club-footed baby at birth is unable by muscular effort to make the foot take a natural position. If he uses his foot in the distorted position, the bones grow in permanently deformed shapes. An adult compelled to walk with his foot artificially fixed in the clubfoot position, would in the course of months become permanently clubfooted. Deformity is the result of improper function.

Spinal deformities usually are the result

of wrong living. Bad teeth, followed by poor digestion and poor nutrition with weak muscles, together with badly adjusted schoolroom furniture, cause slouching postures, which eventually result in curvature of the spine.

This fact impresses the duty to require at all times, an erect posture by the children, and to give them seats so adjusted that they can sit erect without strain.

Perverted ideas of beauty and style are responsible for by far the greater number of bodily distortions, though some deformities result from mistaken notions of anatomy, as, for instance, the fallacy that a growing child's clothing should hang from the shoulders. The only bony attachment of the shoulder to the trunk is at the inner end of the collar-bone. Elsewhere it is attached loosely by muscles. Any pull on the point of the shoulder causes it to slip downward and forward, producing "round shoulder."

When I was a student of medicine, it was erroneously taught that the respiration of man was essentially abdominal, and of woman essentially thoracic. Since then it has been definitely shown that the normal respiration of woman when unrestricted is more abdominal than thoracic.

The corset is an institution of too great antiquity for me to speak disrespectfully of it. Nor would I ask those who have formed the habit of using it in early youth to discard it now. Moreover, I am prepared to admit that some corsets are worse than others. But I desire to lay before you some facts from which you can make your own deductions, to which I will add some based on my professional experience.

When one is confined in bed, the mus-

cles progressively weaken. An arm in a plaster cast withers, or atrophies. On the other hand, in order to develop a part, it is necessary to use it. Corsets act as a support for the lower chest and abdominal walls; and besides hindering the descent of the diaphragm and thus causing thoracic breathing, they splint and thus weaken the abdominal muscles. We have already seen how important it is to the body to have a vigorous set of abdominal muscles. In this way the corset makes for inefficiency.

In Europe I saw women who worked all day in the fields, and others who as hodcarriers climbed up and down ladders, four or five stories all day long, carrying brick and mortar. In Japan young girls coal the great ocean-going ships. These facts refute absolutely the physical inferiority of women, but these women do not wear corsets.

Medical men frequently comment on the ease with which barbarian women give birth to their young. No small part of the distress experienced by their civilized sisters may be attributed to the fact that through weakening their abdominal walls by corset-splinting, this expelling power has become largely dissipated.

Finally it is upon women rather than men that abdominal surgeons grow rich. How often do you hear of a man having a floating kidney or a sinking of the abdominal organs? Why do women have them if not because of the relaxed abdominal organs caused by the corset? If abdominal surgeons had a spark of appreciation, they would erect a moun-

ment to their true friend, the corset!

But it is not for you or me to discard our defective dress. The mischief has been done. I doubt if most of us could get along without these things. Ephraim is wedded to his idols! But we should bear witness to our errors, or those of our parents, so that those coming after may profit by our experience. If we can persuade adolescent girls that the use of corsets does not transform them into women or render them more adorable, but

makes for invalidism, we shall make for the happiness of the future generation.

The least harmful type of corset takes its support from the pelvis, and keeps its place without the aid of garters or straps. It has a strong upright upon each side of the spine which follows the curves of the body behind. The front is straight. It must not decrease the normal waist measure over an inch. At its upper border it should be slightly larger than the body at this level. The lower, or pelvic portion, which is not more than a hand-breadth, reaching from the iliac crests to the upper surface of the trochanter,

or prominent upper end of the thigh-bone, should be laced with an independent lace. Tight lacing should be confined to this portion. The mischief done by such a corset will be confined to the weakening, through splinting, of the abdominal muscles. It will not cause displacements of the viscera.

The Egyptians wore pointed shoes, and their feet must have been deformed. Even with the Greeks, who studied dress

*Concluded on Page 144)*





# : Medical Missionary at Work :

## The Experiences of a Nurse in Uruguay

FRANCES M. BROCKMAN

IN relating my experiences in this field, I shall begin with the time when my hand was crippled for three months, as the result of two severed tendons. I am happy to say that it is almost as straight as before: and that, contrary to the surgeon's expectation that I would never give another massage, it does not bother me in any of the movements. Though I did no professional work during those three months, I was not idle. I found plenty to do in canvassing, visiting, and giving Bible studies in two families, besides studying.

Though I have had many experiences, perhaps none would interest you more than that with one family. Since February I had visited the home each month with the health journal, *La Salud y Vida* [Health and Life], but until June I had seen only one daughter. I felt impressed that these people needed help, yet the girl told me nothing. Often she would keep me talking for half an hour, but she never spoke of their condition. One day when I had been telling of our nurses' work and our training, her sister came in, even more shabbily dressed than she. I told them we also had a sanitarium in Argentina.

"O!" she said, "would they take us in training?"

Gradually, by questioning, I learned their poverty-stricken condition, but it took several months to do it. The father is a heavy drinker. For three years the mother and three daughters had not been out of the house for lack of clothes. Piece after piece of furniture and clothing had gone for the rent. They wished to take the nurses' course yet had no clothes, and

no way to get them. Something impelled me to help them. I bought goods, and had the girls help me sew; and one by one, I clothed them and found positions for them. When I began, they had only one thickness of clothing, and I, although warmly clothed, was cold. They are not the kind of people who will take all they can get, and it was only by really prying that I could find out their true situation. They have paid back part of what was spent for them.

But to be brief, the way opened for readings in the home. Then when I was called away, Miss Kerr continued them, and now one daughter is taking the nurses' course at the sanitarium in Entre Rios, and the boy is in the college, serving as call-boy at the sanitarium to pay his tuition. Although they still owe us over one hundred dollars, yet if they prove to be what we hope, it will be worth all the effort. Reports from their work are encouraging. Sometimes we were almost at the point of desperation, trying to help them to rise above circumstances; yet the still, small voice said, "Don't give up." Recently the mother and another daughter accepted the full gospel message. The other daughter is acting as nursery governess in an English family, but I feel sure that, had she opportunity to study with us, she too would accept the message.

To give you a brief outline of my professional work here since my hand has healed: A week on a mental case—died; six weeks on surgical case, getting acquainted with four men surgeons, who were well pleased with my work, and have since sent for me again; two weeks at British hospital, with special case; then a week in hospital as general night nurse; another mental case; then four weeks on surgical case.

Between cases I canvass and visit interested ones.

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## DISEASE IN SCHOOL CHILDREN

From a report of the Chief medical officer of the Board of Education (Sir George Newman) it appears that of the six million school children in England and Wales, not less than sixty-three per cent suffer from some sort of disease.

## INDIAN SANITATION

In the House of Commons Mr. Montagu stated that it was intended to appoint a separate Sanitary Commissioner to the Government of India. Certain questions regarding the Commissioner's position and functions were being considered. As soon as they were decided the appointment would be made.

## KARLA SANITARIUM

THE campaign against tuberculosis which has gained quite a foothold on Indian soil, which foothold seems to be increasingly manifest, has found an excellent addition in the opening of the Karla Sanitorium by his Excellency, the Governor of Bombay. The speakers of the hour were Balehandra Krishna, Sir Chandavakar, His Excellency the Governor, and Major Hutchinson I. M. S.

Major Hutchinson spoke especially of the lines along which the Sanitarium would be conducted. They still felt that a great deal was to be done in the campaign against tuberculosis by the dispensing and isolation hospital, leaving the Sanitoria to develop very carefully. With this idea in mind, although the sanitarium was small, it was to be thoroughly systematized and conducted along strictly modern lines, with the opportunity for enlargement and development. It is hoped that this institution will not only be a great help in the fight against the disease but that it shall be a means of making better known the laws of hygiene among the Indian community.

IN the selection "Good Substitutes for Meat, Especially in Warm Weather," in last month's HERALD OF HEALTH appeared by mistake some statements diametrically opposed to principles advocated by this magazine. We trust such a mistake may not happen again. EDITOR.

## MECHANICAL EFFICIENCY

(Concluded from Page 142)

with a view to both efficiency and symmetry of the human form, there was an outward deviation of the four outer toes caused by the sandal thong.

At the end of the dark ages the new civilization became loaded down with all manner of dress deformities, some of which, including the corset, have continued until the present day.

Now I am not asking you older people to wear squaretoed shoes or to discard high heels. The time when your feet and mine could have been made anatomically perfect is past. Distorted feet can not be cured; they must be prevented.

Ideally, shoes should be made over individual lasts; but with growing children this is not practicable. Little children should wear loose non-shrinkable stockings, and wear shoes made on the sandal type of last. I prefer low shoes. Uppers are not strong enough to support a weak ankle, and tend to check the up and-down motions of the foot on the leg.—James T. Watkins, M. D., *Orthopedic Surgeon to the Children's Hospital.*

## CHOICE OF FOOD FOR FAMILY

(Concluded from Page 140)

first and last. Such foods as eggs and milk are easily digested and must form quite a goodly proportion of his diet. He can and should, however, cut off his sweets, and perhaps in this way he may balance his accounts. The overactive child and the outdoor worker can find their musclemaking food in the vegetables of the world. These are cheaper and more concentrated. They not only cost less money, but are also more easily kept and served. Here a knowledge of comparative food values seems to me most essential, but as almost every cook-book and every magazine in these days treats of these subjects, such knowledge is accessible to the poorest housewife.—*Ladies Home Journal.*

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