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Asso. Editor



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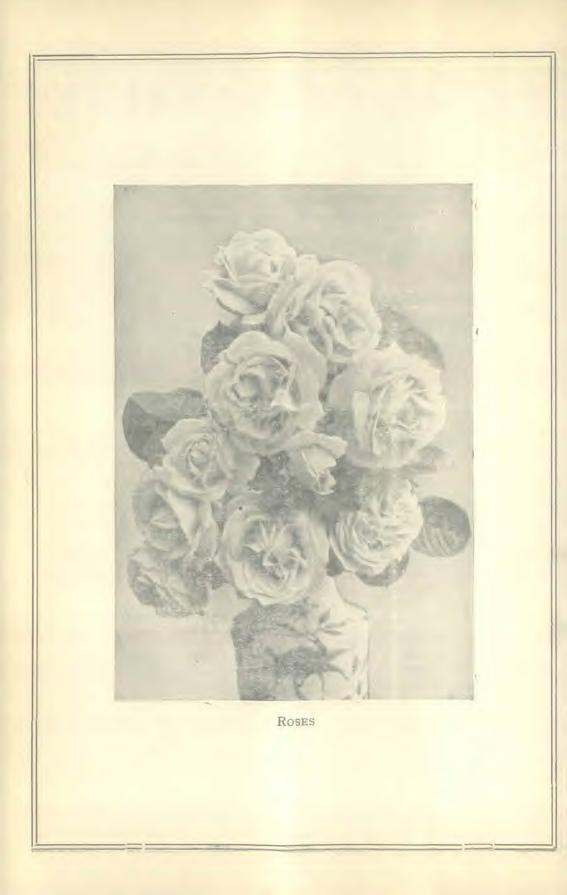
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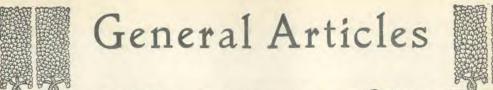
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Factors in the Spread of Tuberculosis

ALBERT PHILIP FRANCINE, A. M., M. D.

There are two broad phases in the communicability and spread of tuberculosis, which in orderly procedure are best discussed separately, (a) the social and economic side of the problem, and (b) the more strictly medical side.

THE SOCIAL AND ECONOMIC SIDE

In placing the responsibility for the spread of infection we must in the last analysis begin with the individual, rather than the institution. It is, theoretically, more the fault of the people than the fault of their surroundings. It is the fault of the people who make the homes. This great plague flourishes in the homes of the ignorant, amid proverty and squalor; but, as has been well said, it is not alone the buildings which make the slums, but the people who live in them. Of course, bad housing conditions play a profound role in the endemicity of tuberculosis, but even could we give every family an airy, clean house, so long as ignorance, carelessness, filth, dissipation and alcoholism existed, we would still have slums, infected houses and tuberculosis.

It is perfectly apparent that better housing conditions would be an enormous stimulus to better living and better home management; and therefore, while the first remedial step is education and uplifting among the poor and ignorant themselves, the second, corollary need, which is of equally pressing importance, is the improvement of physical conditions of living—of housing conditions. Next in importance in this relation comes the subject of conditions of labour or occupation; for, aside from faulty ways of living and bad places to live in, there are the many vile

conditions of labour, which reduce the health and weaken the resistance of the individual, making him susceptible to superinfection or a fresh infection, and rendering him and his descendants less and less likely and able to bring into the world and rear healthy, robust children.

It is thus recognized that the problem of tuberculosis is in a large sense a social and economic one. With such factors to contend with, having their roots deep down in the very basis of modern life and conditions, affecting millions of people is it not right that we should at least pause to appreciate the vastness of our undertaking, and from its very vastness should we not draw resolve not only to pursue our aim indomitably, but to be patient in demanding immediate results though it should be stated, in passing, that results are becoming strikingly apparent.

Thus let us neither forget nor be dismaved by the fact that our problem is to combat, one might almost say, the drift of the times, to raise through education, sanitary laws, medical hygiene and philanthropic effort the proletariat from their condition of dense ignorance and poverty, to enable them to secure suitable homes and teach them how to live in and manage them, and to improve the conditions of their labour, that there may be cleanliness and light, suitable care of the children, sufficient food and clothing, necessary hours of rest, provident and good habits and self-restraint, and available medical supervision.

But there is one great satisfaction to be taken in the very breadth and vastness of this phase of the problem, namely, that it is not

merely tuberculosis work, but public health work in whatever form of activity this shows itself. Antituberculosis work and all forms of public health work in general bear an increasingly apparent interdependence. It is not alone strictly antituberculosis measures which may be confidently looked to for results, but all the associated movements for the public welfare in health, morals and conditions, which are essentially allies. This is now fully recognized, and with the wellorganized tuberculosis crusade pointing the way, other movements have followed along similar lines and the crusade of enlightenment and prevention of disease is becoming more and more a unit in its methods, aims and interrelationships.

THE MEDICAL SIDE

It is necessary next to consider certain salient features of the disease itself bearing on the question of the spread of infection. Two great factors in its communicability stand out:

1. Infection takes place from close personal association or contact with open tuberculosis, as by living with a consumptive or from living in a room or house contaminated by a consumptive. The great source of the infection lies in the carelessness of the individual consumptive in contaminating his surroundings by spitting about or not properly disposing of his sputum, or by spray infection from coughing (equally dangerous) without guarding the mouth with a paper napkin. His towels, bedding, table utensils, etc., are also a source of infection. The period at which a consumptive is most dangerous covers, of course, the second and third stages of his disease when the lung is breaking down and the sputum contains large numbers of living tubercle bacilli.

2. The age at which infection is most likely to take place is childhood. It should be borne in mind that adults, particularly healthy adults, have a very considerable resistance or immunity to tuberculous infection. Without discussing the question of the source of this relative immunity, it may be stated as a fact that it requires a prolonged exposure and implantation to give rise to pulmonary tuberculosis in an ordinarily healthy man or woman. In proportion as bad surroundings, faulty personal hygiene, bad conditions of labour, other infections, dissipation, etc., play a part in the life of the individual, by just so much is this patural or acquired immunity impaired or even broken.

On ethical grounds and because of the dangers of catarrhal infections, spitting should be (and is in many communities) a misdemeanour punishable by law. The danger of infection of children by such conditions is a very possible one; for the time at which this natural resistance is weakest is in childhood, and for this reason and because of intimate and prolonged contact with open tuberculosis in their homes, children furnish the great soil for implantation. For physiologic reasons which it would lead us too far afield to discuss, this infection during childhood does not as a rule develop into pulmonary tuberculosis at that time, but lies dormant in the lymphatic system or is latent until adult life, when it breaks forth or manifests itself in pulmonary localization. It is largely children infected by contact in their homes who furnish later the ever oncoming crop of consumptives.

Milk and meat from tuberculous animals also constitute a source of infection in childhood. Infection may also be hereditary, the direct transmission of the tubercle bacillus taking place from the mother to the fetus by placental circulation. This has been shown to occur in mothers with advanced pulmonary or miliary tuberculosis, but has recently been shown as also possible when the lesion in the mother is in the incipient stage or even latent or non-active at the time of the birth.

During childhood and early adolescence this early tuberculous infection, glandular in type, may manifest itself not at all, or only in anemia, underdevelopment, general physical delicacy, etc. These children react to tuberculin and often have enlarged lymphatic glands, but there is no other way in the majority of instances of telling that they are tuberculous; but this is quite sufficient for the diagnosis, which is to be understood to mean that the moment a child reacts to tuberculin, it is conclusive evidence that it has been sensitized by the tubercle bacillus and that the moment a child is thus tuberculized, it becomes potentially at least a future case of pulmonary tuberculosis.

Not only does the general trend of expert opinion bear out this view in relation to time of infection, but there are also data to confirm it.

In large groups of children in hospital practice, experience warrants the statement that most children of the working class have tuberculosis by the time they reach 14 or 15 years of ago. The same is true of postmortem findings among the poorer classes. Evidence has been clearly accumulating as to the frequency with which the disease is found at necropsy; and with increased refinement in postmortem work the percentages are increasing significantly. Nageli reported definite signs of tuberculosis in 97 per cent. of all bodies examined consecutively. Hamburger in a large group of children reported postmortem findings of 63 per cent. with tuberculous lesions between the ages of 7 and 10 years and 95 per cent. in those between 11 and 14 years of age. Ghon's postmortem statistics from St. Elizabeth's Hospital in Vienna show that by the end of the third year from 6 to 8 per cent. are infected, the percentages rapidly rising until by the fourteenth year the infection reaches 92 per cent. It goes without saying that by no means all these patients would have developed pulmonary tuberculosis clinically had they lived; indeed, this early infection is looked on by many as a source of immunity to subsequent reinfection, but such statistics furnish valuable evidence of the time when primary infection takes place.

It will thus be seen that the problem of

prevention, to be effective, even as limited to the medical aspect of the communicability of tuberculosis, must take into account not only the care and isolation of the consumptive himself, but also the care and development of the children who have already been infected or who may be exposed to infection, and probably the development of a specific racial immunity.

Bet when we view as essentially one, as we must do, the two broad phases of the problem which I have attempted to outline. namely the social and economic conditions. and the more strictly medical conditions responsible for the prevalence and spread of tuberculosis, the point previously emphasized is brought forcibly on us-how very apparent is the interdependence to day of the tuberculosis campaign and all efforts looking to the common welfare! Let me repeat that it is not alone by the strictly antituberculosis campaign that we may confidently expect to control tuberculosis, but by all allied movements looking to improvement of the health, morals, or condition of the people.

For instance, it has been pretty conclusively shown that wherever the death-rate from typhoid fever is reduced, through the introduction of pure water, numerically by one, there is a simultaneous reduction in the general death-rate of from two to three. What is true in this case is equally or even more strikingly so in relation to other infections. Think of the vista of accomplishment which opens up before us, when we know, as we do know, that more than 80 per cent. of all deaths are due to preventable causes!

Thus it is apparent that the movements against infant mortality, venereal diseases, alcoholism, the infectious fevers, cancer, procreation of mental defectives, and the correlated campaigns for better housing conditions, better hours and conditions of labour, childwelfare work, etc., all these movements, public or private, of whatever scope and by whatever methods they proceed, are all working to a common end, the welfare of the race, and as such are prototypes and allies of each other and of the greatest of them all, the tuberculosis campaign. They are all campaigns of preventive medicine, based on scientific development and attempting largely by education to carry the message of health and right living into the hones and very hearts of all the people.—Journal A. M. Association.

Hot Weather and Health

WHY should not the human body find its most congenial environment in midsummer, when the atmosphere is nearest its own temperature of 981°? As a fact, it has been hard to keep comfortable in the first half of the last two Julys. But the mercury in our thermometers has in these heated spells seldom run as high as a clinical thermometer will after a minute or two under the tongue of a person in normal health. When the atmospheric temperature approaches within ten or fifteen degrees of this, the resources for cooling the body begin to be put forth actively by the human organism; the sweatglands are set to work with increased activity, so that by the evaporation of moisture on the surface the heat may be consumed, And when by reason of humidity of the atmosphere this evaporation is less available, we are very uncomfortable. Yet it would seem as if the most normal condition would be to have the body surrounded by a medium as warm as itself.

But the human body is the theatre of heatproducing activities of itself; the processes of life, the energies of living, the food, some of it taken as fuel, all are calorific. We can not exercise or work without this resulting: in fact, the heatregulating function of the skin is always operative; otherwise the heat of our own making would go beyond the limit. It is wonderful how near the body in health maintains its uniform balance of temperature, whether that of its surrounding medium is of the temperate, torrid, or frigid zone. Of either, the frigid is easier to adjust to, for by external protection and more active combustion through exercise the body can make itself warm. But how can we safely resort to agencies to reduce our temperature? The native of the equator, with little or no clothing and with few needs, gives himself to an idle life, and is happy; but the Anglo Saxon has that in his blood which will never let him be as inactive. Indeed, dress is a positive protection against great heat, especially of the head and back.

One may live in these hot spells as becomes the custom of Europeans in the tropics; rise early and do the day's work in the cool of the day; rest during the midday heat; sleep when the night cools off; admit the night air to the house and exclude the hot air of the daytime; have the air of the house as dry as possible. Sleeping porches are a good device for hot weather. Diet in hot weather must be of the simplest and most digestible, for we can not afford to put our internal machinery to any more work than is necessary. Besides, the housewife must have her labours lightened. Cooling drinks of simple sort, such as weak lemonade, serve the purpose of abstracting heat and supplying material for the refrigerating perspiration. Fruits and vegetables that are seasonable are better than meat.

The state of mind can be a great contributor to comfort. It would be a good thing to hide the thermometer, and skip the newspaper account of what humanity is having to endure; reporters make as much an asset of news out of the hot spell as they do of a prize-fight or a baseball game. One should forget the heat rather than try to be philosophical about it; and the imagination can be made to work either for good or evil. Do not worry nor allow the heat or insects to worry you. Most have to work, and few of us can any more lie in the shade in a ham-

mock and fan ourselves than we can fly to a more salubrious clime; but we can take what we must do in a quiet, complacent way, and avoid that, so far as is possible, which is under the circumstances disturbing in exposure, work, eating, or state of mind. Employers can contribute much to the health of those who serve them by fitting the service to the occasion.

After all, it is the babies more than the work ers who suffer from the heat. At least it is in July that the deaths of these immature little ones occur in greatest number. In May about one fourth of the deaths occur under age of five years, but in midsummer they sometimes constitute one half of the total mortality. . .

The chief disease of hot weather is of the digestive organs, and for the most part diarrhœal. Heat contributes much to various disturbances of the functions of the body which react on the intestinal tract; it depresses vitality, and quickly decomposes the food, especially that of an animal sort. But it is easy to see how these disturbances can be guarded against, and the deaths from diarrheal disease are actually fewer than they were years ago.

Follies of Fashion and Their Consequences

L. E. CONRADI, M. D.

THOUGH it is true that traces of fashion may be found almost from the beginning of history, no period has been so subject to the rule of the freakish Dame as the last few decades. This is especially true as regards dress, in which, notwithstanding our increased knowledge, it is customary to have the most surprising and radical changes in style without consideration of common sense, good taste, economy, health or comfort; and although this problem has been discussed for years, enlightenment is needed as much to-day as ever.

Clothing is worn for two principal purposes,—to protect against the weather, and for the sake of modesty. The cardinal requirements for hygienic dressing are as follows:—

1. Free action of the body should not in any way be restrained.

2. The protection should be so distributed as not to subject parts of the body to chilling.

3. The function of the skin should not be in any wise impaired.

4. The clothing should be as light as possible, consistent with adequate protection.

Inasmuch as the clothing of women cor-

responds least with these principles, we shall consider that first.

The Corset

First to be mentioned in its baneful effects is the bodice, or stay, which came into vogue in the thirteenth ceptury, and which in various forms has tyrannized over nearly half of humanity in civilized countries since that time. For the actual corset we are "indebted" to Catharine de Merici (notorious because of her connection with the massacre of St. Bartholomew). Ir per time lacing was already practiced to such an extent that the body was badly distorted. We often wonder at the bad habits of native tribess such as the practise of tattooing, the removal of the eyebrows, the distortion of the lips or ears, the artificial disfiguration of the skull. the deforming of the feet, etc.; but all these customs, considered from a medical viewpoint, must be considered as more or less harmless in comparison with the corset. While the disfigurements mentioned are mainly to be censured from an esthetic point of view, and as a rule damage but one organ of the body, we must go to the American or European lady, standing at the head of civilization, in order to find a custom equally harmful to proper breathing, the circulation

of the blood, and the assimilation of food.

A few months ago, the writer read a little story in a missionary treatise by Harris on Central Africa, which applies to the subject under consideration. He writes about as follows: "Once I heard an apt answer from a Negro woman. The questioner was a white lady, who had been speaking about the pain caused by heavy ornaments. 'Why do you wear on your arms and legs bracelets which cause such pain?' asked the white woman. 'Beauty is well worth pain,' replied the dark sister. 'But surely you do not suffer such pain in order to appear beautiful !' said the white woman. 'Then tell me, white woman,' was the quick reply, 'why do yu suffer such pain? Your waist is drawn in like that of a woman suffering the pangs of hunger.' "

We shall now consider the effects of the corset in particular. Influence on the Organs of the Chest

Fig. 2 shows the extensive compression of the chest and lower ribs. But the modern corset encloses the entire trunk in its grasp like a vise, thus preventing the expansion of the abdomen to make room for the flattening of the diaphragm, so that the diaphragmatic respiration is impaired in a high degree. Investigations with Roentgen rays have demonstrated that a tightly laced corset almost entirely prevents the action of the diaphragm. As a consequence of the poor ventilation of the luugs the whole body suffers.

The supply of air is insufficient, and in the same way that soot and ashes collect in a stove with insufficient draft, so carbon dioxid and carbonaceous matter accumulate in the blood of persons addicted to corset wearing. The skin loses its natural colour, and acquires a yellowish, dusky appearance. The compression of the lungs is also a reason for various lung troubles, and the individual easily becomes a prey to consumption. The heart likewise suffers under the pressure, and its work is considerably augmented. While the exercise of climbing a hill tinges the face of a hygienically dressed person with the crimson hue of health, the same exertion causes a person encased in whalebone and cords to gasp for air, the complexion presenting all shades of florid red and ghastly

paleness in the same instant.

Influence on the Abdominial Organs

While the organs of the thorax are comparatively well protected by the ribs, this is much less so with the abdominal organs. Consequently the effects of tight lacing upon the abdominal viscera may be found in a greater or less degree in about fifty per cent, of all woman. The best known of such ailments is the "constricted liver." Fig. 4. Our cut illustrates a case by no means extreme. Careful examination often reveals the fact that the lower part of the right hepatic lobe is nearly separated from the main organ, the separate portions being

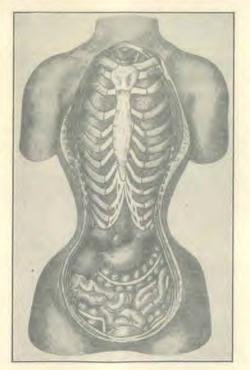


FIG. 2

Female trunk, tight-laced (old corset model). The extensive compression of the lower ribs as well as a compressing-groove over the liver and stomach can especially be noticed. The transverse colon and the small intestines are considerably prolapsed.

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held together only by a fibrous cord. As the liver acts not only an important part in digestion but also in destroying poisons, the interlerence with thef unction of even a part of the organ must be followed by grave results. Moreover, disturbance of the circulation in the portal system is followed by congestion in the pelvic organs, thus creating favourable conditions for gastric troubles and many other maladies peculiar to women. The congestion of gall produced by tight lacing is one of the most important causes of the formation of biliary calculus. This explains why gall-stones are four or five times more frequent with women than with men. The stomach often presents a distinct groove, due to the compression, so that frequently an hourglass form of the stomach results, very much the same as in a case of gastric ulcer.

Furthermore, a general prolapse of the abdominal organs is often observed, especially if the effects of general emaciation and frequent pregnancies are combined with tight lacing. The disease known as floating kidneys is also very prevalent, and it may prove equally painful and dangerous if the ureter and the renal bloodvessels are compressed by the dislocation. In a similer way a movable liver or floating spleen may result. Special attention is called to the prolapse of the small and large intestines, as presented in the illustration. The displacement of these organs causes irritation by pulling on the ligaments, a factor not unimportant in the nervous disturbances common to women. The acute angular bend at the points where the ascending colon connects with the transverse and the transverse with the descending colon is a very frequent cause of constipation. Last of all we refer to the pressure of the corset upon the muscles of the back and the abdomen, the corset acting almost like a plaster of Paris dressing, which has been worn for some time. Persons addicted to corset wearing suffer with backache as soon as they leave off the garment,-a striking acknowledgment of the weakening of their dorsal muscles. The poor development of the abdominal muscles has its penalty in a relaxed abdomen, a condition which increases the difficulty and the duration of childbirth. The female body needs artificial supports as little as the male, and with proper exercise, troubles which result from the abandonment of the corset will soon disappear.

What has been said thus far pertains to the effects resulting from the old corset models. It remains to be seen what will be the effects of the hip compression which

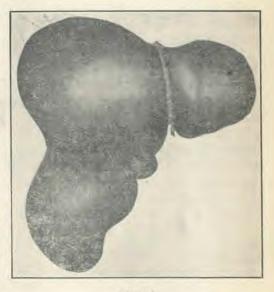


FIG. 4 Constricted liver.

has been dictated by fashion the last few years. As is well known, every corset wearer excuses herself with the statement, born of ignorance, "I wear my corset perfectly loose." But it would be only necessary to attend the morning toilet of the devotees of fashion to learn the country. The still empty abdomen is drawn in as much as possible, the chest raised to a maximum, and then the moment of full expiration is used maliciously to fasten the strait jacket. Those who consider this description exaggerated would only need, in order to be convinced, to notice the calculous indurations of the skin and the brown pigmentation resulting from small extravasations of blood into the skin of those who thus lace.

After having thus studied the consequences of tight lacing in the form of manifold selfinflicted tortures and infirmities, which even by the best and most expensive remedies can be only partially overcome, I venture to hope that at least some of our readers may be inclined to listen to a few suggestions of reform. In a health waist we find a type of waist by which the weight of skirts, underclothes, and stockings can be supported from the shoulders. This requirment has long been solved as far as underclothing is concerned by the use of union suits. Waists should be made of light, porous material. Effects similar to those produced by a corset may result from tightly fastening the skirt bands. Girdles and sword belts may produce similar results in men.

Having established the general principles of healthful dressing, and especially studying the evil effects of tight lacing, we would now like to discuss some other harmful articles of clothing.

The Garter

First we would mention the old-style garter, which, like the corset, exercises its bad effects by constriction. Every physician who pays attention to this matter will find pronounced constriction-grooves, produced by garter-wearing, in quite a high percentage of his patients. The pressure especially affects the veins, which have thinner walls and lie nearer the surface than the arteries. In course of time the veins become dilated, and finally varicose. Varicose veins are not only troublesome but also dangerous, because of a tendency to ulcerate and become inflamed. The writer has repeatedly seen cases in which not only the soft tissues were grooved, but even the bone tissue had given way to the pressure exerted from early hildhood. Fig. 8.

High Collars

In a similar way too tight and too high collars have the same bad effects by hindering the reflow of venous blood, the former being forced upon children whose parents have a false idea of economy, and the latter being worn by such specimens of the socalled better class. As a consequence of such congestions in the head, near sightedness as well as nose and throat diseases are frequently observed.

Footwear

Another article of dress concerning which



FIG. 8 Longitudinal section showing constriction, by garter, of soft tissues and bone.

manufacturers and purchasers manifest scant common sense is the shoe. How little the usual modern foot corresponds to the natural form can best be seen by a glance at a photograph of feet crippled by our conventional pointed modern footwear. Too short shoes by the front pressure produce the so called "teapot-toe." The usual high heels of ladies' boots cause the foot to be on a slant, thus giving a constant tendency to slip to the front. Further, the heels of ladies' shoes, are as a rule not made to support the heel but, rather a portion of the foot situated considerably in front of the heel. The corn is probably one of the most common inconveniences caused by inconsistent footwear. The body protects itself against pressure and irritation by the thickening of the skin and the formation of callous, The upper shin, thus thickened, grows down in the form of a corn, whereby the ends of the nerves with the tactile corpuscles are gradually destroyed. One would think that the pain caused by corns would be sufficient to induce the sufferer to come to his senses. It must not be forgotten that corns are by no means a harmless trouble. Under the cone-shaped corn, which works its way into the flesh, a small mucous follicle often forms, which may be connected with the joint cavity. In case of corn operations which have not been performed skilfully or aseptically, as well as by secondary infection due to the ordinary unclean inside of most boots, inflammation of the joints easily results, and this may lead to inflammation of the lymphatic vessels and veins, and even to gangrene of the toe. Another evil which still seems to be prevalent in some places, is the sale of boots made on a straight last. Especially is this to be condemned in children's shoes.

The Train

Another bad custom, which however, seems at present to be in disfavour, is the wearing of street gowns with trains. Nevertheless, in view of the careless way in which the dust of the street is sometimes thus carried into the house, a short word of admonition on this subject may not be out of place. The indescribable mixture of excrement, expectoration, and germs of all sorts, which is gathered up and brought into the house by trailing skirts, is brushed from the dress by the servant, or else the wearer herself cleans the garment, perhaps scratching the spots off with her fingernails. Often the subsequent superficial cleansing of the hands does not suffice to remove the germs before she prepares the meal for the house-

hold. If then maladies occur in the family, they are attributed to providence, while they might have been avoided by the exercise of a little common sense and cleanliness.

Equal Covering of the Body

The equal covering of the body is of great importance. How often one sees children, otherwise well clad, running around in the coldest days with bare blue legs. The same thoughtlessness is manifested in the thin covering of the upper chest in young ladies. This thin clothing, not to speak of the lack of modesty, is often paid for dearly in the form of bad colds, pneumonia, pleurisy, etc.

A treatise concerning follies in dress and their results would not be complete without the consideration of the esthetic, economical, and moral sides of the question. It is a regrettable feature of our times that the ideas of true grace and beauty should have been so badly spoiled by the human caricatures which have been impressed upon our minds since our youth. Compare for a moment one of the graceful figures produced by the classical period of Greece with one of our modern dames of fashion, and it will be easily seen how far we have departed from nature.

As to the matter of economy in dress, it must be borne in mind that the dressmaking trade has its tricks, like every other profession. The enormous army of employees can be maintained only by continual changes in fashion. While we really welcome new, tasteful designs in dress, when they conform to the laws of health, yet we must decidedly condemn the continual changes of the present day. Just consider the immense sums of money wasted on dress! Newspaper articles concerning men who have been driven to crime or unhappiness simply by the love of dress of their wives or daughters are by no means fables, but deplorable facts. And not only do the upper ten thousands pay their tribute to the god of fashion in money and health, but even the poorer class believe

that they have to do the same. Many a poor girl forgoes healthful food and warm underclothing in order to save the money for the pleasure of wearing a little tinsel for a few hours. Still more is it to be deplored that even doctors, who by reason of their better knowledge should really be examples to the world, pay little or no attention to the harmfulness of present-day fashions. The writer has often seen nurses in medical institutions, where it would be least expected, perform their difficult and responsible duties in tight corsets and high-heeled, pointed-toed shoes.

As regards the moral, esthetic standpoint, every unbiased reader must admit that the fashions of the last few years have had a decidedly immoral taint. While there is no reason for being ashamed of a natural. graceful form, it is nothing less than disgusting to see how the clothing is often designed to awaken the passions. The sad influence which present-day fashions exercise on general morality will not be disclosed before eternity. A noble and refined mind reveals itself in the choice of tasteful and simple clothing, which fulfils the needs of the body. Outward glitter and gaudy clothing may temporarily fascinate the inexperienced, but they lack the charm of true refinement. May none of our readers be entranced by the glitter of fashion.

"SANITATION IN INDIAN SCHOOLS"

It is clear that there should be as much eagerness for sanitation in scho. Is as there is for education, nay, even more. There is yet another reason why perfect hygiene in schools should be insisted upon. The school attracts children from different quarters of a city. The sons of the rich and the poor read alike in one school. They mix with each other, and possibly interchange many ailments which are carried back to different quarters, to become a source of further danger. The school itself absorbs many

kinds of poisonous germs brought from different parts of the city, transmits many maladies to different quarters through the medium of its students.

The following are some suggestions that if followed by the schools of India would prevent much carriage of disease.

1. That the site for the school building should as a rule be approved by the sanitary engineer, or the medical officer of the district.

2. That the plan of the building as to the aspect of the light and air should also be subject to the approval of the medical officer.

3. That in the staff there should be at least one or two medical men to give lessons in hygiene, and with the help of the magic lantern to demonstrate to the students the different organs of the body, their formation and function, and the consequences of their abuse.

4. That periodically there should be medical inspection of the boys in relation to their eyesight, disorders of the stomach, chest, and lungs, and where means permit, such a medical officer should be a whole time member of the staff.

5. That all the wcodwork such as doors, desks, boards and windows should be periodically washed with hot water and soap, and thoroughly disinfected.

6. That there should be a sufficient number of pails and closets, in proportion to the number of students, and that they should be daily washed twice. It is imperatively necessary to have a pucca floor in the latrines, and a good outlet for the urine.

7. That the confectioner in school, should keep the sweets under a gauze cover, the sweets should be tested from time to time, by the medical member of the staff.

8. That the use of slates should be discontinued. Tongue licking of slates is not uncommon, and their use by one suffering from a certain disease, can often give that disease to another. They may thus become a source of infection.

Mother and Child

The Baby's Brother and Sisters

EDYTHE STODDARD SEYMOUR

CHILDREN are sometimes teased in a way that makes them jealous of one another, especially of the "new baby." This teasing is very wearing on the nerves, and causes the children to become irritable. All babies should be welcomed by their brothers and sisters as a dear possession of their own, something that belongs to them as well as to the father and mother.

The greatest harmony prevails in families where the young are carefully trained to thoughtful acts of helpfulness, each seeking to give pleasure to the other members of the family. None are too young to take a turn at amusing the baby when he is old enough to play, and in this way the other children will become interested in him and learn to love him.

Little folk should have naps daily until of school age, and should have an early bed hour as long as they attend school. The custom of sitting up late causes dark rings around the eyes and a pale, haggard appearance. Children who are rebellious about leaving their play to take a daytime nap are little benefited by the nap. Various means may be tried to get them quietly to sleep. Rocking is not so good a method as allowing a soft toy for a companion, or placing a large flat pillow where the baby himself can pull it down for a crib when he gets tired; it will be necessary sometimes to suggest that he do this. After the little one falls asleep, he should be properly covered. Going to sleep in this way, the baby does not have to endure the loneliness of the up-stairs.

Diet has so much to do with the activity and strength of a child's muscles and brain that I urge all mothers to keep the children on plain foods, well cooked, with very little (better none at all) meat, pastries, or fried foods, as long as they are attending school. Besides being stronger and less liable to disease when fed thus, the well-pourished child will be better behaved and a better student than the carelessly fed child. Cereals and fresh ripe fruits, or sauces made of evaporated fruit, are sufficient and suitable for the breakfasts; if possible, add fruit to the dinner and luncheon menus also; it is certainly a healthful and quickly prepared dessert. When the child comes in hungry from its active outdoor play, nothing is more wholesome for a between-meal piece than a luscious apple, a bunch of grapes or raisins, or a mellow banana. The list of available fruits and vegetables is so large that a careful selection and combination of different ones will furnish a well balanced dietary without the addition of meat. Milk, if from a clean source, may be given the thin child with its meals; but the fat one, the one bordering on an overfat condition, should not be allowed to drink milk or much of any other fluid at meal-time; nor should it be allowed to eat thin soups. Tea and coffee are not served by careful mothers nowadays. Cereal coffee and seasoned hot water (cambric tea) may be given for hot drinks.

Right here it would be suitable to add that the naps of an overfat child should never be taken directly after eating, but such a child should be encouraged to exercise for a halfhour; on the other hand, the thin child should sit quiety or take a nap after each meal.

The young should be encouraged to exercise freely, and not be obliged to sit sedately and "keep clean." If they are to be strong and healthy, this is as important for girls as for boys. An indoor play-room for stormy days should have some arrangement for vigorous exercise, and the windows should be fully opened even if a light wrap must be worn to keep comfortable. A punching-bag is inexpensive, and will please the boys. A trapeze made of stout ropes and an old broom stick, makes a splendid exerciser for the boy and his sisters. Just put bloomers on the girls, give them freedom, and watch them grow strong and rosy; they'll take to "stunts" like a duck to water.

Much of the time during the spring the ground is too damp for free romping outof doors, but a number of swings put up on a large tree will furnish amusement for a good-sized family of children and their friends. Use strong rope, and have several kinds of swings: the ordinary swing, with a firm seat, hung so as to swing high; a trapeze; a single rope with large knots to climh as a ladder, to swing straight from, or to grasp a knot at shoulder height, then run in a circle, let go, and swing around in "airship" style. A two or three-year old child will enjoy a swing just long enough to pass under the arms and around the chest; these little ones run a few steps, lift up their feet, then "let the old cat die," and repeat.

But children's lives should not be all play; there should be character building and training. Boys will make more capable men if they can cook a simple meal, put on a patch or a button, or make their bed in an emergency; they will be better abie to appreciate woman's work and to estimate her strength, and will be broader minded, if they, as well as their sisters, are expected to assist the mother. And the girls will be better fitted to become wives and home-makers if they are their father's and brothers' good comrades, not thinking themselves too nice because of their sex to assist in outside "clearing up" of the home premises or in planting in the garden. I do not mean, however, that girls should be expected to take charge of the garden alone, nor to do work beyond their strength, nor be forced to do it at all it they really object. But a girl should, if rightly trained, enjoy the companionship of her father and brothers.

The sports are as good for this companionship as work is, and are equally healthful and wholesome for the girls and boys. Skating, rowing, swimming, golf, tennis, etc., are each available to girls and boys alike. Friendships made among congenia! companions who have plenty of interest in outdoor amusements, ripen into a more wholesome, lasting love, when such occurs, than does the love that starts in cozy corners and among dancing companions, which flashes rapidly into a passionate infatuation, and the settling down to the quiet home life dies out, each becoming fired of the other.

This state of affairs in a civilized nation is indeed appalling, and as mothers we each should try to rear our sons and daughters in the best possible state of physical and moral health. To this end we should see that they are not ignorant of the needed knowledge of the origin of human life, nor of their responsibility in such matters. If more attention were paid to proper training in such matters by the parent, there would be fewer mistakes made. Children should not be left to learn these things from companions of their own age.

All young people should have the society of persons of their own age under the supervision of proper guardians in their own homes. Boys like a den of their own in which to entertain boy friends. Girls like to take girl friends to a daintily furnished room that is all their own.

When the young woman entertains a young man in the parlour, some member of the family should stay with them much of the time, and should be sociable and seek to make his presence welcome. The caller should not be allowed to stay late, especially when the young people are not engaged. Careless mothers, thinking their daughters different from other girls, have made grave errors in these matters. The young lack judgment, and love is ever blind.

We should not only provide for and train our young, but ever guide and guard them so they may be fitted to become happy, contented home-makers. Each should early choose a vocation, and even make preparation for some temporary work that will provide a livelihood in an emergency.

PORTABLE NURSERY WALLS

"WHEN the tasks and lessons are ended" a nursery screen easily transforms a corner of a busy work day room, and proves an admirable setting for "story time." To make this are required four yards of bright-coloured cambric upon which are mounted cut-out "birds, beasts and fowls" all in rollicking good-natured neighbourliness. The pictures may be cut out of old magazines, and the collecting and mounting would provide hours of amusement for the children of the family. Mount the pictures with a good boiled paste and sew several brass rings along the top for hanging. The pictures may be renewed from time to time, and many lasting lessons taught in this way. Journeys abroad might be taken with the wee tots, by grouping pictures of flowers, animals and birds of each clime.-[E. S. R.

CONVENIENCES FOR THE NUR-SERY

DON'T think that because the baby grows up so soon it is not worth while to provide him with conveniences. An inchthick rope, covered with soft material and stretched across a corner of the room about a foot from the floor, will help the baby to pull himself up or guide him in walking. His little hands grasp it easily, and it is an amusement as well as an aid in his baby gymnastics. It may be fastened to the wall on hooks and taken down when desired.

A row of pockets made, like a slipper case and attached with strings to the foot of the baby's crib is a convenient place for a

rattle or ball, a bedtime doll or an extra handkerchief or napkin.

A low table with a drawer, is indispensable for the children's play room, and may be devised by sawing off the legs of a discarded kitchen table and covering it with green felt or oilcloth.

Many nurses prefer a table, ordinary height, on which to bathe a young baby. It may be covered with the rubber blanket and bath apron, and the basin or small bathtub, as well as the toilet articles, are at one end and easily within reach. It is much more convenient than the old method of holding the baby on the lap.—[F. H.

HOMEMADE MODELLING CLAY

IT may be interesting to some of the mothers to know that modelling clay for the children can be made cheaply at home. This is the recipe: One cupful of flour, one-half cupful of salt, one teaspoonful of powdered alum. Mix with water until of the proper consistency for molding. It should not stick to the hands. Different portions may be coloured differently with blueing, cake colouring, etc. If the clay which is not in use, be wrapped in a thick, damp cloth, it can be kept for quite a while.—[E. M. B.

GOOD OUT OF ADVERSITY

TRIALS are profitable.

The rough diamond cried out under the blow of the lapidary, "I am content; let me alone."

But the artisan said, as he struck another blow: "There is the making of a glorious thing in thee."

"But every blow pierces my heart."

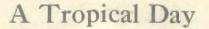
"Aye; but after a little it shall work for thee a far more exceeding weight of glory."

"I cannot understand," as blow fell upon blow, "why I should suffer in this way."

"Wait; what thou knowest not now, thou shalt know hereafter."

And out of all this came the famous Kohi-noor to sparkle in the monarch's crown.— David James Burrell, D. D.

Editorial



HE whose lot it is to spend the hot season in the plains of India will do well to keep his eyes open for lessons from the things of the natural world. One obtains a good idea of the way in which nature relates itself to the high temperatures of the mid day by a trip through a heavily wooded jungle. It is evident that between the hours of eleven and four P. M. everything is quiet. The bird has ceased to sing, the wild beast is not in search of its prey, the deer are not grazing in the open jungle, and the wild fowl has ceased his challenging note. All are quiet and taking advantage of the heat of mid day in the coolest location possible. Even the flower has folded its delicate corolla to avoid the vertical rays of a tropical sun. The Indian also has learned that between these hours is a poor time for him to do business so he closes his shop and spreads himself out for a nap in the shade.

It is hard for the active westerner to console himself with the idea that the midday nap is not laziness but that it is necessary to the maintainance of health and vigour. For the dweller in the tropics during the hot months the midday nap makes up for the short night's sleep one so often gets. In many places in India one cannot settle down to sleep till late in the night for the first hours of the night are spent in tossing about in search of a spot free from prickly heat, the torment of one dwelling in a torrid climate. In Lieut-Col. Giles book on Climatology is found the statement that "Between the hours of two and four only Englishmen and dogs are to be found abroad, and there is doubtless a great deal of truth in this as regards our countrymen, though the dictum is perhaps rather hard on the dog." He who persists

in his regular pursuits during these hours will soon or late lose out and become the victim of disease. While between the hours of ten and four are the most appropriate business hours for our cities in a northern climate, yet in India one had best adopt the hours which are the result of years of experience under the torrid sun.

Five A. M. is a good rising hour as this is about the only hour in the day one can take exercise without being bathed in perspiration for the rest of the day. Exercise between five and six, a substantial breakfast at 6. 30; business till eleven; light tiffin at 12.00; study for an hour; 2.30 to 3.30 a nap; a bath; dinner at 4.30 with four and a half hours for business or recreation: 9.00 P. M. a light luncheon of milk, malted milk, ice cream, fruit or fruit juices; 9.30 a cool sponge bath; and at 10.00 P. M. retire. A regimen of this kind instead of chota hazri, breakfast, tiffin, lunch and late dinner will meet with considerable opposition in India, but the routine just outlined provides for work and recreation during the coolest part of the day and allows sleep and rest on a comparatively empty stomach, when the sleep will be most sound and peaceful. One finds sufficient antagonistic conditions preventing sleep in the early part of the night without tossing about because of a late dinner composed of four or five courses of meat and many indigestible foods.

The food also needs some thought during the hot months. We need less food, especially less of the fatty foods and meat. It is not necessary for one who lives in the tropics to eat so much protein food, of which meat is an example. The Indian native bears this out. His food is composed almost entirely of carbohydrates. While no doubt this is carried to an extreme point, it shows that one does not need so much of the protein food when living in a hot, relaxing climate. Plenty of fruit and fruit juices should find a prominent place in the dietary as they are refreshing and keep the eliminative organs free and active. Because of the increased activity of the skin plenty of water should be taken to keep the kidneys well flushed out.

The clothing should be thin and white and as far as possible free from starch. White shoes and stockings are included as they are the most comfortable. Thin white clothing allows the greatest possible chance for evaporation, upon which coolness so much depends. For the head a sola pith topi which allows the greatest amount of shade and ventilation with lightness is the best, A topi not possessing these advantages is but little better than no topi. The band should set out well from the head, ventilation should be provided both at the top and the sides, and it should be broad enough to shade the head, neck and face. To supplement the topi during extreme periods of heat an umbrella with a white or cream coloured cover, and a green lining will ensure greater protection.

In most parts of India a pair of dark glasses is indispensable. Those with celuloid sides are indicated where dust storms are prevalent as they are in the United Provinces and the Punjab. The head aches in India are not so much due to the actinic rays of the sun as they are to the excessive eye strain due to the glare of the midday tropical sun on the puckka roads of this country. The glasses worn should not be so dark as to make one feel that he is in a dungeon. Such glasses have a tendency to weaken the eves. A shade sufficiently dark to relieve the eves of the glare and avoid eye strain is quite sufficient. Some authorities prefer an amber coloured glass.

A little thought given to the dwelling house is capable of making one more comfortable during the excessive heat. During the day the aim should be to exclude the excessive heat. During the night the air cools off and then the house should be opened and cooled off for the hot spell of the succeeding day. Before the rains, when there is more or less breeze, tatties are a great convenience for cooling off the rooms. A breeze passing through tatties will often lower the temperature of a room as much as ten degrees.

It is an erroneous idea that a punkah lowers the temperature of the room. It puts dead air into motion. This is very important, however, as the recent experiments of Leonard Hill go to show that it is still air at a high temperature that brings on heat stroke. Although the good work done by the punkah are offtimes offset by the yexations of an irritating punkahwala who frequently falls asleep at his post, still it is more effective than the modern electric fan unless the latter has long arms. The punkah sets into motion a greater volume of air than the common 12in electric fan. There are two times during the day when a bath is very acceptable. After the midday nap and just before retiring at night. Some who live in the tropics are diffident about taking a cool bath. There is nothing that is as harmless and still productive of good. On a hot, stuffy night there is nothing that will relieve the depression and settle one down for a fair night's sleep like a cool sponge bath or spray, especially if one avoids friction in drying off the skin. A bungalow with a terraced roof prepared to shed unexpected showers or dew is also an added comfort to the sleeper.

Daily exercise is one of the great essentials in maintaining health in the tropics. The heat makes one feel to lead a life of inactivity. But if one allows his feelings to dominate what he knows to be the right he must be prepared to endure the consequences. The military man is not as badly off in this respect as a routine is mapped out for him which furnishes him with the necessary exercise. It is the professional, and office man who suffers the most as there is nothing that compells him to take exercise. The best time for taking exercise is in the early morning or in the evening. The garden, tennis, cycling, polo, swimming, boating, riding and shooting, offer the most advantages as they combine pleasure with exercise. Gymnastics are good but they come to be monotonous. Our exercise is something like our food; we must enjoy it to get much benefit from it.

In spite of all the admonitions we have given to enable one to keep healthy and

The Simplicity of Dress

HUMAN nature does not change materially from age to age. The desire to ornament the body, which seems to be instinctive with the members of the weaker sex, has been a female characteristic from before the dawn of history; for prehistoric remains give evidence of the same desire for personal adornment that we witness in modern times.

One can find no civilized nation or savage tribe where some attempt is not made at embellishment of the figure. In many cases, civilized as well as savage, these efforts result in a distortion rather than in an improvement of the human form. That even civilized taste is not trustworthy is shown in the fact that when a new style is introduced, even though it may shock beholders at the first because of its incongruity, it is soon received with toleration, and may even excite admiravigorous in the tropics by avoiding the heat, we must remember that it is not the man whose occupation takes him out of doors that necessarily succumbs to the debilitating effects of a hot climate, but it is the office man and the housewife who suffer most. We do not infer from this that these extra precautions are unnecessary. It is the sufficient excercise that is gained by the one whose occupation takes him out of doors a part of the day that overcomes the evil influences due to the heat by keeping the body in trim and fit condition ready to overcome the deleterious influences.

tion; then when the style has passed, it is "horrid."

But there is one particular concerning which women do not change. They always have been interested in personal adornment, and they probably always will use their best endeavours to make themselves attractive. When they do not succeed, it is from lack of means, or from deficiency of knowledge, rather than from lack of the desire to be pleasing in appearance. With the poor it is often lack of means; with the rich, it is lack of knowing how—"bad taste," in other words.

It is somewhat difficult to realize that real beauty lies in simplicity, not in ostentation. The colonial dames evidently did not realize it as a rule, nor do the majority of their greatgranddaughters.—*Selected*.



Diseases and Their Peculiarities

Prickly Heat and Dhobi's Itch

Among the minor ills of the Tropics there is none that is more distressing than this troublesome malady. The symptoms and appearance are too well known to require description, and the disease is, as a rule, rather irritating and distressing than involving any danger. The process of regulating the temperature of the body depends, however, almost entirely on the action of the skin, and where prickly heat is so extensive and severe as to partially incapacitate it from its functions, it is obvious this usually trifling disease may be a predisposing cause of more serious maladies. Then, again, the loss of sleep and nervous irritation kept up by the constant itching, pricking and soreness, are powerful helps in pulling down the already severely tried powers of resistance to the climate, and often have a great deal to say in determining an ultimate breakdown.

There is a common popular notion that pickly heat is "healthy," people saying that "it is a sign of health," and that it is a mistake to check it. This, however, except in so far that healthy, full-blooded persons usually suffer worse than those in an anæmic condition because they usually perspire more freely, is an entire fallacy; as though good health may predispose to prickly heat, it cannot but have an influence in rapidly reducing that factor in its causation. Then, too, the numerous small abrasions that result from the bursting of the minute vesicles, and from scratching, are extremely liable to become infected with the germs of suppuration, and give origin to crops of boils.

Boils are extremely common, and are most painful and debilitating when present in large numbers, as they often are in hot climates, and I believe they should be really regarded merely as sequelae of neglected prickly heat and not as a distinct condition. For these reasons the writer is strongly of opinion that prickly heat should always be treated, especially as it is usually quite possible to keep it within moderate bounds, by the use of appropriate remedies. At sea the use of salt water for bathing should be avoided, but frequent bathing in fresh, and especially in rain water, is not only a great alleviation, but tends towards cure by removing the irritating accumulation of saline matter that results from the constant evaporation of the perspiration. Almost any metallic astringent, such as sulphate of copper or sulphate of zinc, 4 grains to the ounce, will be found to be extremely useful in reducing the extent of the irritation, but none of these are nearly as effectual as a lotion of perchloride of mercury of a strength of one per thousand.

This agent can be obtained ready measured out into tabloids, which are always coloured blue to prevent mistakes in handling the solution; which is a most useful one, not only for this purpose, but as a general antiseptic. Care should, of course, be taken in the custody of these tabloids, and also in the handling of the solution; but the latter is not really more poisonous than the copper solution, or than many other antiseptics which, like carbolic acid, are nowadays in constant domestic use. This mercurial solution is undoubtedly by far the best remedy we have for prickly heat, and I have never seen any harm or signs of absorption of the mercury result, even from its copious use. The tabloids should be got of such a size as to make about a quarter of a pint of the solution and after the bath and before retiring to bed,

all affected parts of the skin should be dabbed with a bit of lint dipped in the solution, which should be allowed to dry on to a certain extent before putting on one's clothes. A further great advantage over the other metallic astringents is that, owing to the weakness of the solution, it does not injure the clothes, and the slight blue aniline colouration easily washes out. It will be found, too, an almost complete preventive against boils, if resorted to from the commencement of the hot season. Powdering with violet powder is also useful in subduing the irritation, which by the adoption of the above-described plan, may almost always be kept within moderate bounds.

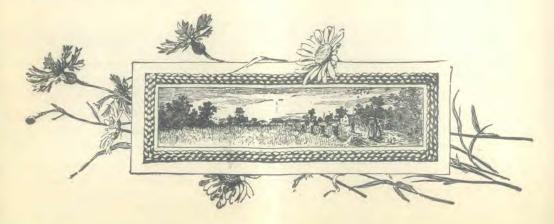
"Dhobi's itch" is a troublesome irritation of the skin often met with in hot climates, which is due to the growth of a minute fungus within the structure of the scarf-skin. It commonly attacks those parts of the body where the surfaces of the skin come in contact with each other, as, for example, between the legs, and in the armpits. The general appearance is very much that of a "ringworm," the patches spreading by their edges, where they are red and irritable and tending to fade in the middle. There can be little doubt that the disease is generally caught by the infection of clothing that has been washed in dirty pools along with that of previous sufferers from the disease, which is very common among the native races. If neglected, it is apt to spread so as to cover a

large area, under which circumstances it is apt to be troublesome, but if taken early, there is generally no difficulty in dealing with it. All that is necessary is to destroy the fungus by means of strong anti-septics, but in doing so it must be remembered that any solution strong enough to kill the fungus must necessarily also cause more or less inflammation and, for the time, increased irritation of the skin.

On this account, if any considerable area be involved, it is mistake to attempt to treat the whole of it at once, as such a course may easily result in producing an amount of soreness and inflammation which may involve confinement to bed. The patches should be attacked piecemeal, a couple of separate patches the size of a shilling being quite as much as is prudent to attack on any one occasion.

Equal parts of tincture of iodine, carbolic acid and glycerine painted over each patch, to the extent above described, is a safe and efficient remedy, as also is Goa powder; but the essential point is to be on the look-out for the contingency, and to at once treat any patch that may appear before it has time to spread.

The disease is, I believe, common enough in other warm climates, but I am not acquainted with its popular designation elsewhere than in India, where it is known by the above name.—*Climate and Health in Hot Countries.*





Vegetarian Sandwiches

GEORGE E. CORNFORTH

(Continued from May)

Cottage-Cheese and Walnut Sandwiches Use two parts cottage-cheese to one part chopped walnuts or other nuts.

Cottage-Cheese and Jelly Sandwiches Spread one slice of the buttered bread with cottage cheese, and the other with jelly.

Cottage-Cheese and Celery Sandwiches Season cottage-cheese with salt and cream, and mix finely chopped celery with it.

Egg Sandwiches

Use either scrambled eggs or velvet eggs as filling. Spread one slice of the bread with mayonnaise if desired, or mix mayonnaise with the egg mixture after it gets cold. To make the scrambled eggs, slightly oil an omelet pan. Put into it one-fourth cup cream or two t blespoons milk, then break in three eggs. Add one-fourth teaspoon salt. Cook slowly, stirring and scraping the egg from the bottom of the pan, till the egg is of the desired consistency, but it should not be cooked too hard, or it will be difficult of digestion. Or use tomatojuice instead of the cream or milk.

To make the velvet eggs, use-

2 eggs

1/4 cup milk

A bit of salt

Beat together and cook in a double boiler, keeping the water in the lower part of the double boiler a little below the boiling-point, till the mixture thickens, but do not cook it so long that it curdles.

Another nice way to prepare eggs for sandwiches is this:---

Cover the bottom of a slightly oiled omelet pan with a thin layer of the velvet egg mixture and cook over a moderate heat till it sets into a thin sheet, then cut this sheet into pieces of the desired size and shape for the sandwiches.

Chopped ripe olives or chopped nuts, or both, can be added to any of these egg fillings,

Fresh Tomato Sandwiches

Put a thin slice of tomato between two slices of buttered bread, or spread one slice of the bread with mayonnaise, or lay a lettuce leaf on top of the slice of tomato.

Lettuce Sandwiches

Spread one slice of bread with butter, the other with mayonnaise, or spread both slices with mayonnaise, and place between the slices a fresh, crisp lettuce leaf which has been washed and thoroughly dried.

Cucumber Sandwiches

Spread half the slices of bread with butter, the rest with mayonnaise, or spread mayonnaise on all the slices. Pare a cold, crisp cucumber, cut it into thin slices lengthwise, cut the slices the length of the slices of bread, place two strips of cucumber side by side on a buttered slice of bread, and cover with a slice which is spread with mayonnaise. Then cut the sandwich in two between the slices of cucumber, making two oblong sandwiches fach having a strip of cucumber between the slices.

Celery Sandwiches

Use chopped celery mixed with mayonnaise as a filling, or make-

Rolled or Diploma Sandwiches

Trim the slices of bread, steam them slightly, spread with butter, then roll a slice of the steamed bread around a stick of crisp celery, tie with baby ribbon, and trim off the celery even with the ends of the sandwich.

Other kinds of rolled sandwiches can be made by spreading any kind of filling on the steamed and buttered slices of bread, rolling and tying with baby ribbon.

Watercress Sandwiches

Spread half the slices of bread with butter, the rest with mayonnaise, and lay sprigs of watercress between the slices, or chop the cress fine and mix it with mayonnaise,

Radish Sandwiches

Use thin slices of radish between slices of bread, one of which has been spread with butter, the other with mayonnaise.

Apple Sandwiches

Pare, quarter, and core nice eating apples and chop them fine. Mix a little mayonnaise salad dressing with the apples, and use for sandwich filling.

Apple and Cottage-Cheese Sandwiches

Use a mixture of cottage-cheese and chopped apple.

Strawberry Sandwiches

Use sliced, fresh strawberries between buttered slices of bread. A little sugar may be sprinkled on the berries if desired. Other fresh berries may be used.

Fresh Peach Sandwiches

Use sliced fresh peaches for filling. Slices of sponge-cake may be used for making these sandwiches. No butter is needed on the cake, Binceapele Sandwiches

Pineapple Sandwiches

Use thin slices of fresh pineapple between buttered slices of bread, or chop the pineapple fine, drain off the juice, which may be used for some other purpose. Spread one slice of bread with butter, the other with mayonnaise, and use the pineapple for filling.

Hub Sandwiches

Trim, toast, and butter three slices of bread. On one slice spread chopped ripe olives with which a little mayonnaise has been mixed. Place on this a second slice of toasted bread. Lay on this a lettuce leaf and a thin slice of tomato. Cover with the third slice of bread. Cut cornerwise. Then place on a plate with two ends together so as to form a diamond shape. Garnish with ripe olives, and a bit of jelly placed on top of each sandwich.

Ribbon Sandwiches

Use white bread and dark bread. Trim the bread so that the slices are all the same size. Spread the slices with butter. Then pile four slices one on top of the other, using the white and dark slices alternately, and using any kind of filling desired between the slices. Press well together, then with a very sharp knife cut the pile into one-fourth-inch slices, so as to make sandwiches composed of alternate strips of white and of dark bread with filling between.

Three-Layer Sandwiches

are attractive, made of two slices of white bread with a slice of dark bread between, and filling between the slices. Cut into three oblong strips, making three sandwiches about as wide as they are thick,

Second-Hand Food

DAVID PAULSON, M. D.

THE universal prevalence of high blood pressure among the middle aged in active life is becoming a standing menace to humanity. Men are dropping dead in the streets of heart failure, strokes of apoplexy are becoming distressingly frequent. It is now known that in addition to our modern strenuous life, the waste products of meat, the nicotine of tobacco, and the caffeine of tea all tend to develop this condition.

Food Plus Ashes

Meat is partly burned food. It is nourishment plus ashes; and it is the ashes, the waste products, that I seriously object to, and that are responsible for a large share of the mischief produced by meat eating.

Contrary to the usual notion, the animal kingdom does not make any food at all, Every bit of nourishment there is in the earth to-day was created by the plants. The plant kingdom reaches down, lays hold of the dead minerals, absorbs the gases from the air, and aided by the moisture and wooed by the sunshine builds up food. The animal consumes this plant food, burns up most of it, leaving the remainder, more or less burned, as muscle.

But it takes about ten pounds of corn to make one pound of flesh. In other words, the animal, instead of making food, burns up about nine pounds to make one, and leaves a lot of ashes clinging even to this pound. The food that the animal eats is largely used in furnishing energy for its various activities, but a small part is stored away as muscle, and when we eat flesh we are simply eating the original food made by the plant plus the ashes made by the animal.

"HE who is without folly is not so wise as he thinks."



WHAT VACCINATION DOES.

We quote the words of the Royal Commission on vaccination though published many years ago :--

"We have not disregarded the arguments adduced for the purpose of showing that a belief in vaccination is unsupported by a just view of the facts. We have endeavoured to give full weight to them. Having done so, it has appeared to us impossible to resist the conclusion that vaccination has a protective effect in relation to small-pox.

We think-

(1) That it diminishes the liability to be attacked by the disease.

(2) That it modifies the character of the disease, and renders it (a) less fatal and (b) of a milder or less severe type.

(3) That the protection it affords against attacks of the disease is greatest during the years immediately succeeding the operation of vaccination. It is impossible to fix with precision the length of this period of highest protection. Though not in all cases the same, if a period is to be fixed, it might, we think, fairly be said to cover in general a period of nime to ten years.

(4) That after the lapse of the period of highest protective potency, the efficacy of vaccination to protect against attack lapidly diminishes, but that it is still considerable in the next quinquennium, and possibly never altogether ceases.

(5) That its power to modify the character of the disease is also greatest in the period in which its power to protect from attack is greatest, but that its power thus to modify the disease does not diminish as rapidly as its protective influence against attacks, and its efficacy during the later periods of life to modify the disease is still very considerable.

(6) That re-vaccination restores the protection which lapse of time has diminished, but the evidence shows that this protection again diminishes, and that to ensure the highest protection which vaccination can give, the operation should be at intervals repeated.

(7) That the benefical effects of vaccination are most experienced by those in whose case it

has been most thorough. We think it may fairly be concluded that where the vaccine matter has been inserted in three or four places, it is more effectual than when introduced into one or two places only—and that if the vaccination marks are of the area of half a square inch, they indicate a better state of protection than if the area be at all considerably below this."—Indian Medical Gazette.

NECESSITY OF CARING FOR THE TEETH.

In one of his recent "Little Talks on Health and Hygiene," at Harrisburg, Dr. Samuel G. Dixon, '86 M., State Health Commissioner, said in part:

"The African savages who polish their teeth to ivory whiteness with the chewed end of a stick may be woefully deficient in many ways, but in their extremely careful observations of this hygienic rite they are an example to many civilized people.

"The proper care of the teeth is as essential to the well being of the body as is the unceasing vigilance of its sentries to a beleaguered army. The mouth gives access to infection. Unless the teeth are kept clean they will become infected and decay.

"Tiny particles of decomposed food remaining between the teeth make an ideal breeding ground for germs. When this condition exists these unwholesome little enemies find their way into the blood through which they are circulated into all parts of the body.

"This likewise promotes the decay of the teeth, which means the breaking down of an essential part of our physical machinery. The proper mastication of food is an essential to good digestion, and broken, ill-kept incisors, bicuspids and molars do not make satisfactory grinding machines. As a result unfair demands are made upon the digestive system and trouble is apt to ensue.

"Begin with the children at an early age and teach them to clean the teeth thoroughly at least twice a day, morning and evening. Do not allow the fact that the first teeth will be replaced by others to excuse neglect in the care of the children's teeth. Their present health,

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the prevention of decay and its accompanying pain and the formation in these early years of the essential habit of cleanliness, makes the care of children's teeth of the utmost importance.

"This is equally essential to the health of adults; numerous ailments of a serious nature can be traced directly to bad teeth. Then, too, there are distinct advantages to be derived from proper care. Think what cheerful introduction a smile becomes which displays a row of sound teeth. It seems to be peak cleanliness, healthfulness and self-respect."—"Old Penn."

QUESTION CORNER

CARBOHYDRATES.

"Please state what carbohydrates are. I understand that they are undesirable elements in some forms of intestinal indigestion."

Carbohydrates include the starches and sugars. They form the bulk, usually, of the vegetable foods. Unquestionably some carbohydrates are more undesirable than others. For instance, one person can eat with impunity dried bread, or zwieback, who will have distress soon after eating fresh bread or potato. An other may find that he is not able to use oatmeal; though in this case, the trouble may be in the oil and not in the carbohydrate. Often one who is not able to use the ordinary sloppy carbohydrates is able to utilize them better if they are thoroughly dried out, and possibly browned a little. Not infrequently the intestinal disturbance is caused by the use of "sweets," such as candy, cake, rich preserves, or other food containing sugar in concentration. One who has trouble with carbohydrate digestion should eat his food dry enough to compel mastication, and should masticate the food until it is thoroughly reduced to a pulpy state. In all such cases, the teeth should have careful attention, for diseased teeth harbour germs that infect the food as it is eaten.

BAD BREATH.

"What will cure offensive breath ""

Bad breath may be due to bad teeth (for which consult your dentist, and use some antiseptic dentifrice, or mouth wash, thoroughly several times day) or to catarrh (consult a nose and throat specialist for examination and treatment) or to constipation. For the latter use such foods as vegetables, coarse grains, and laxative fruits, which will give you two or

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three good movements a day, one after every meal. If this diet is insufficient, make use of agar as described in former magazines, or liquid vaseline, or both. A high colonic lavage, or enema, so taken as to carry the water the full length of the colon, and continued until the colon is completely emptied of its contents, may used by some persons, two or three times a week, to advantage. This does not relieve the tendency to constipation, but it removes som: of the rotten products of the constipated condition.

206. PALPITATION OF HEART

"Cullinga" states that his wife suffers from "a frightened, fluttering sensation about the heart accompanied with difficulty of breathing. . . Attacks are intermittent, and continue for a considerable time. She is very much run down with loss of sleep and heat fatigue."

Ans .- In palpitation of the heart the heart beats are not so effective in circulating the blood, and the difficulty of breathing is largely due to want of blood in the lungs. To improve the heart's action, the general health must be attended to. It is impossible to have a strong heart with a weak body. As much rest as possible in the recumbent position should be taken. Cold wet applications over the heart, changed frequently, will help this irregularity of the heart. The daily cold mitten friction will also prove very serviceable. It is very important to attend to the digestion in all affections of the heart. With improved digestion and regular bowels, palpitation will most probably cease.

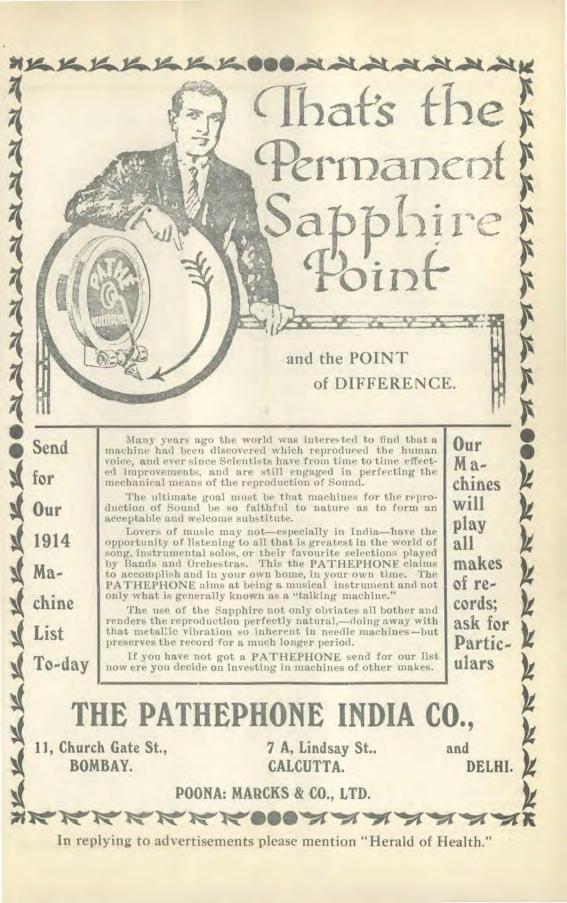
VARICOSE VEINS.

E. B.: "I am suffering from varicose veins in my leg, and have a good deal of pain, but no ulceration. What treatment would you recommend?"

Ans.—Elevating the limb will give rest and bring the greatest relief. It is the only perfect rest which you can give it. The application of hot fomentations is a useful measure. Alternate hot and cold applications are useful in relieving congestion and pains. In some cases where the veins are tortuous and irregular it may be necessary to wear an elastic stocking, which you can obtain from Walton & Curtis, of 190 Broadhurst Gardens, West Hampstead, London, N. W. In extreme cases a surgical operation may be necessary. This means the removal of the tortuous and knotted veins, and is a comparatively simple procedure and uniformly successful.

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NEWS NOTES

FREE PURE-FOOD TESTS

The municipal laboratory of Paris has established the first of the contemplated stations for free tests at different parts of the town, beginning with the populous suburbs. The analyses, will be made in the morning, when marketing is being done by housekeepers, and will be carried on for only an hour or two.

TUBERCULIN INSTITUTE FOR MADRAS.

At a meeting of the King Edward the Seventh Memorial Committee held this week it was resolved that a sum of Rs. 75,000 be expended upon the erection of a tuberculin institute, and that the balance of money in the hands of the Committee, which, with the Government contribution, will amount to about Rs. 4 lakhs, be founded for the purpose of supplying money for the upkeep of the institute and its research work.—The M. S. Journal.

WOMEN AND PATENT MEDICINES.

Women are by nature credulous, an excellent provision provided they do not fall into the hands of the unscrupulous, who trade on their credulity. The true quack is always unscrupulous. It is part of the definition of him. Therefore in all matters of private health, let my readers carefully avoid quacks and advertised remedies. The benefit that these remedies effect is nearly always strictly limited to the dispensers of them. The patient, if really ill, merely postpones the doctor's visit, and, if only temporarily indisposed, will get well without quacks.—Wrench: The Healthy Marriage.

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VKKKKKER BANANANAN Club Foot or Talipes.

The term Club-Foot signifies any Deformity of the foot caused by an unnatural contraction of muscle, tendon, fascia or ligament which makes the foot to bend 7 either outward or inward. It may be con-genital or first appear after birth. 7

7 These cases generally are 7 found among children of 4 to 5 years of age and many have 7 by been carelessly neglected 7 their parents and guardians or in some cases treated unsuccessfully. 1 Consequences are that the unfortunate children's careers become 1 quite useless in after life.

So if you are interested please drop us a line for our Illustrated Deformity Manual in which you will find all the detailed particu-Y lars regarding this. 2

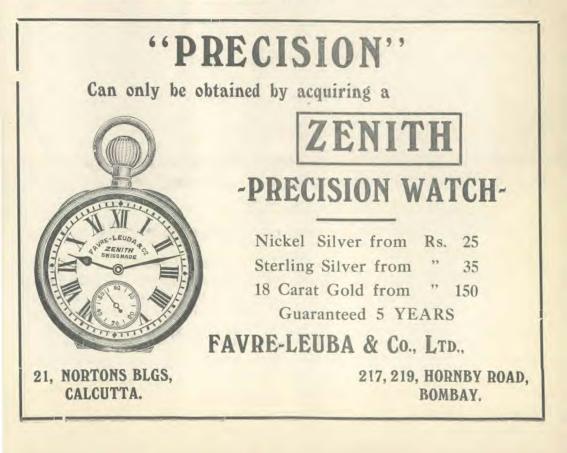
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RIPON HOSPITAL, SIMLA.

The Government of India are meeting the cost of a separated room in the Ripon Hospital, Simla, for the insta lation of an X-Ray Apparatus. The Simla M micipality is also giving Rs. 36,000 towards (1) the remodelling of the administrating block. (2) providing an operation theatre towards which the Gaekwar of Baroda has given Rs. 5,000 and (3) adding a third storey to the main block. The whole outlay of these improvements is estimated at rupees eighty thousand.

CAMPAIGN AGAINST DIRT

At its last meeting the Societe de Medecine Publique et De Genie Sanitaire adopted a resolution against the exposure of goods for sale on the streets. This will be brought to the attention of the proper authorities in an attempt gradually to stop the practice. Among the reasons for condemning the practice are the following: Safety of pedestrians, who are obliged to use the sidewalk more than ever since the increase in motor traffic; exposure to the weather of the clerks who tend the stands; contamination of exposed foods by dirt. The society of public medicine and sanitary engineering lays special stress on the last two points.

THE RAO SANATORIUM, INDORE.

DR. GOPAL, R. TAMBE sends us a very interesting account of the new Sahatorium opened in Indore State at Rao, between Indore and Mhow. It has been named after H. H. The Maharaja of Indore. It is well situated on high land overlooking Indore and Mhow. The sanatorium consists of numerous separate buildings, *serai*, nurses' quarters, servants' quarters,' European's block, Parsi block, Hindu block, Brahmin block, bandstand and lavatories.

We are also glad to see the publication of a "clinical quarterly" published by order of the Durbar for department circulation only. This is a useful record of the excellent clinical and operative work done in the Maharaja Tuko. Jirao Hospital and in the dispensaries of the State.

The Medical Department of the State consists of 1 State Surgeon, 4 Assistant Surgeons, 2 Lady Doctors and 43 Sub-Assistant Surgeons. The Clinical Quarterly reports a large number of interesting cases.

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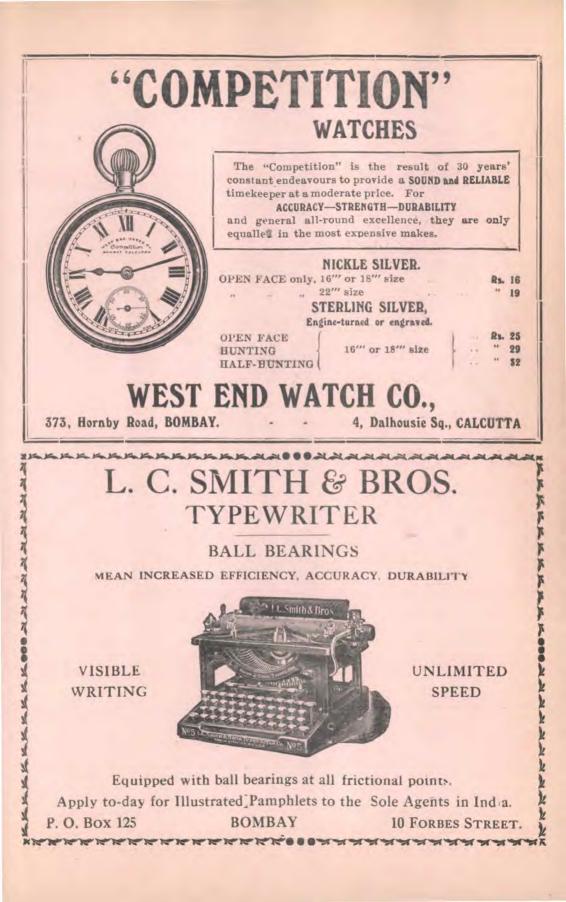
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