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Health

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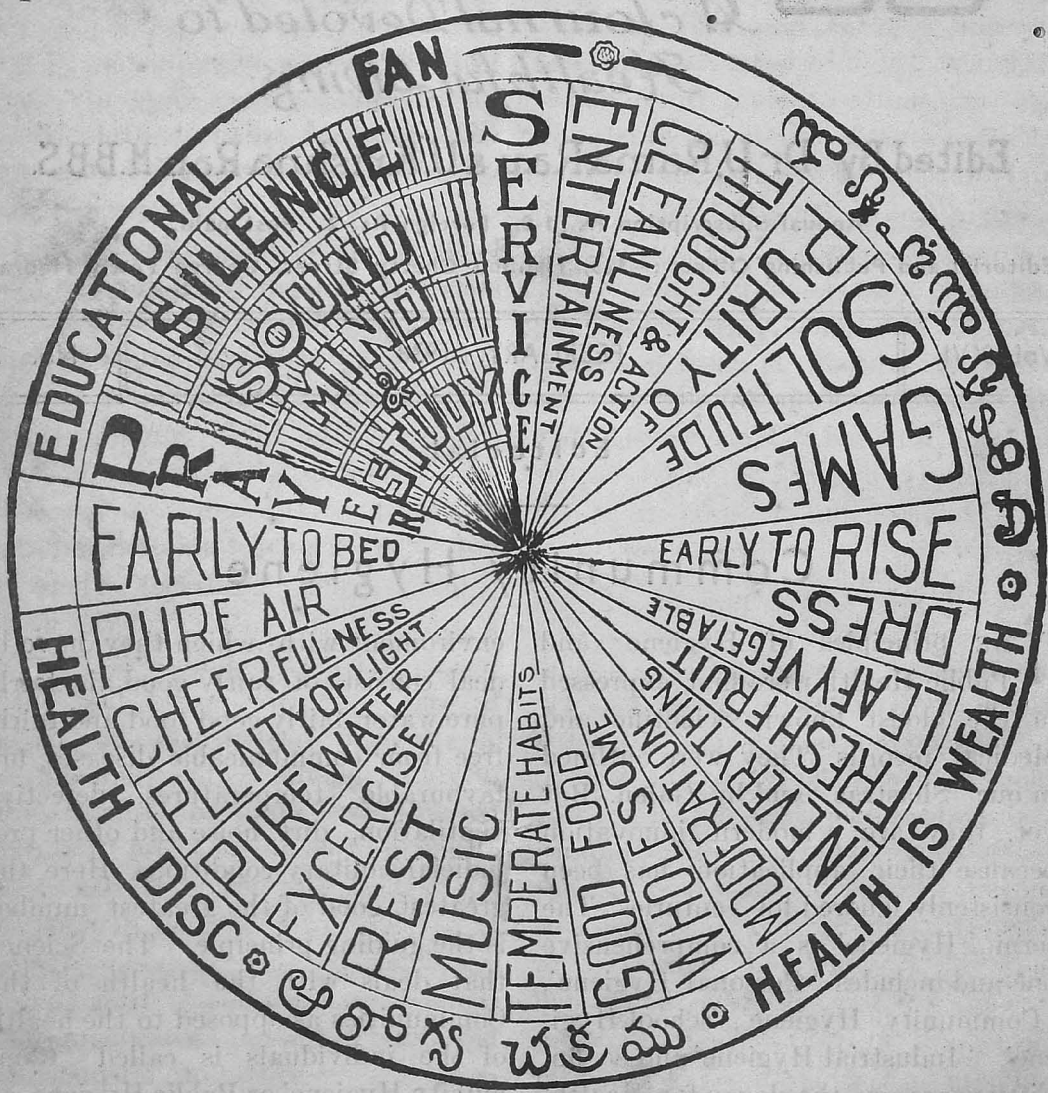
Editorial

Community Hygiene

THE principles of Hygiene and Public Health were first expressed in the oldest known Scientific and Medical records. They were outlined in our 'Shastras' and by Galen. But yet, they are a modern innovation because their application has been consistenly ignored for centuries. The term 'Hygiene' is a comprehensive one and includes 'Personal Hygiene', 'Community Hygiene', 'School Hygiene', 'Industrial Hygiene' and so on. Fifty years ago, the slogan for 'Health' was '*mens sana in corpore sano*', *i.e.*, a sound mind in a sound body. This is Personal Hygiene, pure and simple. This aphorism took only the individual into consideration and neglected the environment. Now-a-days, we know too well that a sound body and a sound mind are unavailing for the conduct of normal living unless the enviroment with which they have to deal consists of fairly good air, fairly pure water, fairly good food and fairly free from communicable diseases, unfavourable temperatures, defective ventilation, dirt, noise and other prejudicial sanitary conditions. Here, the greatest good of the greatest number is the guiding principle. The Science that deals with the health of the Communities as opposed to the health of the individuals is called 'Community Hygiene' or Public Hygiene or Public Health. Neglect of Personal Hygiene brings on certain diseases from which the individual alone suffers. On the other hand, neglect of Community Hygiene will involve suffering and devastation of a whole community from the ravages of infectious and communicable diseases.

1. First of all, let us take *air*.

Pure air is absolutely necessary for healthy life and perfect health can only be maintained when there is an abundant supply of pure air. Health and Diseases are in direct proportion to the purity or otherwise of the air. Increase in ill-health is largely due to impurities of the air. What are the



Observe the rules of Health and you will have both Health and Wealth.

substances that make the air impure and thus contribute to the ill-health of the community at large? They are (1) "Decomposing animal and vegetable matter, (2) Dust and suspended matters, (3) Micro-organisms, (4) Sewers &c." Unless the community takes proper care to see that the air is kept always pure and free from these impurities, there is always the danger of certain infectious and communicable diseases overtaking the community. It is within our living memory the havoc played by the world-wide Influenza in 1918 and the heavy toll of lives it claimed. Tuberculosis is another scourge which is ravaging those parts of the world where the air is contaminated. These diseases—Influenza and Tuberculosis—are described in popular language as the Great Pandemic and the Great White Plague, respectively. The diseases

which are being spread because of the existence of insanitary conditions have been and are rapidly brought under control but the diseases which are spread largely by personal contact have not been correspondingly reduced. Tuberculosis and Influenza belong to the latter category, and present a great unsolved problem. Amongst the infectious diseases that are transmitted chiefly through air, mention must be made of Small-pox and Measles. Flies may have some share in transmitting the disease. The commonest cause is perhaps direct personal contact or proximity to a case, a proximity close enough to allow the throat or nasal secretions or skin debris to be inhaled by the persons infected. Thus we see that community hygiene is based on personal hygiene and the two are correlated. *The air-borne diseases are 'Respiratory Diseases'.*

2. Next, there are what are called water-borne diseases. Chief among them are Cholera, Dysentery, Typhoid and so on. Water from the clouds *i.e.*, rain water is the purest. As it descends through air to the earth, it gets impure. The impurities may either be dissolved or suspended. Again, they may either be solid or gaseous and inorganic or organic. Water again may be divided into hard or soft. The presence of calcium or iron produces hard water as in chalk wells. Water from the neighbourhood of grave-yards contains calcium, sodium, nitras, sulphates, phosphates etc. Water either in wells or tank may often become contaminated by surface washings and percolation of offensive materials. In villages and in towns where there is no proper drainage system, the foul kutcha drains not infrequently empty their contents in the neighbouring tanks which are generally contaminated by washing clothes in or near them and also by the passage of excrement directly into the water. A village tank therefore is a source of great danger and a strict eye should also be kept on such a supply to prevent any form of pollution. Tanks for drinking purposes should be reserved and kept under watch. It is well-known that drinking water may contain the germs of diseases like typhoid, cholera and dysentery. Besides the germs of these diseases, bad water may contain several worms or their eggs which produce in man various morbid symptoms. Hookworm disease is the most common among such diseases. These water-borne diseases are *'Alimentary diseases.'*

3. Thirdly, we have what are called Microbic Diseases. There was a time in the history of the world, where germs were unknown. Previous to this time, the world had entertained vague notions as to the nature of these maladies. The tendency of the primitive man was to personify all natural phenomena and this led to the earliest conception of disease as the activity of individual demons and according to this demonic theory, pain, disease and death were held to be caused by special Evil Spirits. Then came the period of Hippocrates (460—359 B. C.), the father of modern medicine. He evolved what is called the theory of the humours in man—the humoral theory. There were according to him four humours—phlegm, blood, yellow bile and black bile and any improper balance in these humours resulted in disease.

This doctrine of Hippocrates was

followed closely by Galen. Then we have what is called the Sydenham theory (1644—1648). Dr. Thomas Sydenham asserted that, 'A disease is nothing more than an effort of nature to restore the health of the patient by the elimination of the morbific matter'. He recognised the existence of a definite substance—the '*materies morbi*', as the cause of the disease. This is a definite step in advance of the Hippocratean theory and foreshadowed the Scientific recognition of infective organisms. Lastly, we come to the germ theory of Louis Pasteur (1857—1863). He may be said to be the father of 'Bacteriology'. Lord Lister reflecting upon the significance of these investigations of Pasteur, concluded that many wound diseases were probably infectious and set to work by use of antiseptic dressings, sprays etc. to establish his thesis which paved the way for the modern practice of sanitary or aseptic surgery. Then came the startling work of Robert Koch (1875—78). According to his theory, a particular germ is responsible for a particular disease. It can be isolated and grown in pure cultures. It can be introduced into healthy animals. It can produce the identical disease in them and cause its death. It can be recovered subsequently from the tissues. These are the four rules of Koch for identifying the cause of diseases. Robert Koch discovered the bacillus of Tuberculosis in 1882; the Cholera Vibrio was discovered in 1883, the bacilli of Diphtheria and Tetanus in 1884 and so on. This is the foundation for the development of another Science called Immunology. We can prevent Small-Pox by vaccination; Cholera, Typhoid and other diseases by inoculation. This we call Preventive Medicine.

The knowledge that diseases were produced by germs and that the spread of disease is due to the infliction of the healthy individual with these living germs makes it clear that for self-protection, Society must prevent the voiding of germs by the diseased person where they will be picked up by other individuals. The responsibility of society was recognised even before the germ theory of disease was well-established. One of the foundation stones for this belief was laid in the excellent work of Dr. John Snow of London in 1854 in investigating an epidemic of Asiatic Cholera which was traced to the water of Broadstreet-well. This was the biginning of the Science of Epidemiology. Thus, water-borne disease was known to exist before it was known that the disease was produced by germs. It was then believed that filth produced these diseases, in the same way as Malaria was till recently believed to have been caused by mal-air or polluted air, and not by mosquitoes.

An important branch of Preventive Medicine is Preventive Sanitation. In order to prevent healthy individuals from contracting infectious diseases, you have recourse to vaccination and inoculation. But, the spread of the disease must be checked by protecting air and water from being polluted. To prevent air-borne and water-borne diseases, isolation, segregation and disinfection are effective methods. Proper conservancy *i.e.* removal and disposal of rubbish is also a necessary part of preventive sanitation.

Yet another branch of 'Preventive, Medicine' is 'Preventive Hygiene. Preventive Hygiene or the conduct of

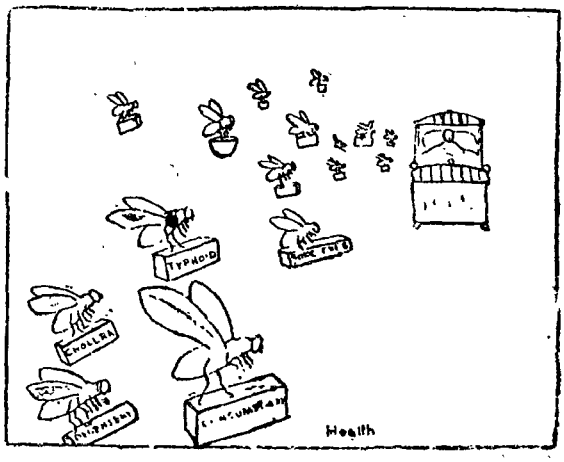
individuals in such a way as to avoid infection and communicable diseases is based upon our knowledge of both Preventive Medicine and Preventive Sanitation. Our habits are now influenced by our knowledge of the germs of particular diseases, their mode of life and the manner in which they may be transmitted; so that in our daily activities, we avoid opportunities of infection. Promiscuous kissing, the use of common drinking cups and the eating of food prepared and served by people of uncleanly habits whose freedom from infectious diseases cannot be vouched for, these and many other unhygienic habits are automatically condemned by our knowledge of germ diseases. In Preventive Hygiene, there is what is called the power of resistance, to be developed in individuals. Pasteur demonstrated that the outcome of the battle between man and the microbe may be determined by weakening or attenuating the latter or by building up a specific resistance of the human body. This resistance in many cases is specific for the disease in question, but for other diseases like Tuberculosis, the resistance may be related to the bodily vigour and general health of the individual, so that personal hygiene which assists in building up a strong and healthy body is related to disease prevention and is important in disease as well as in health.

Thus we see, Community Hygiene consists in the steps taken by the society as a whole in preventing infectious and communicable diseases. But this responsibility cannot be undertaken by the society as a whole. The role of the Physician and the Sanitarian is very great in preventive medicine. An efficient Public Health Administration is indispensable in the prevention and cure of infectious and communicable diseases. As soon as any infectious or communicable disease is discovered in any household, it is incumbent on the owner to notify the Public Health Department of its existence so that necessary steps may be taken to isolate the patient, to segregate the contact, to disinfect the house and all things and appurtenances of the patient to avoid the spread of infection, to vaccinate or inoculate the rest of the household and the neighbours in the locality and thus immunize them and at the same time to take the necessary steps to cure the patients in Infectious Disease Hospitals specially set apart for them. If the individual should fail to notify, he may be the unconscious cause of a widespread conflagration and the loss of thousands of lives of human beings. The individual, therefore, cannot divest himself of his responsibility in the matter and he must be presumed to be a henious offender and must be included in the category of murderers. Here ignorance is no excuse. Notification must be made compulsory and non-compliance must be made penal. For, this is the pivot of Community Hygiene and whatever steps the Health Administration may take to prevent the spread of infectious diseases, will be infructuous if infectious and communicable diseases are kept hidden in the homes and the inmates thereof are made to come into contact with the patients in the infective stages of the diseases. Co-operation of the public is therefore absolutely necessary in the successful working of the Health Administration.

Our Mighty Foes

By Dr. L. R. Fernandez, L.M.P., Trichinopoly.

Of all our enemies, visible and invisible, the most mighty are the Flies. The amount of harm the flies do to mankind is incalculable. As they are frequently hovering over drains and wherever filth and dirt abound, they carry the disease germs from these places to the food and drink taken by man and in this way are very powerful in spreading diseases. All kinds of diseases—their name is legion—are transmitted through the instrumentality of flies, *e.g.*, cholera, dysentery, diarrhoea, typhoid or enteric fever, paratyphoid, intestinal worms as hook-worm, round worm, tape-worm, sleeping sickness etc. During rainy season, and in places of pilgrimage, epidemics of cholera and even small-pox are spread like wild fire by these innocent looking flies.



The Flies—the carriers of Disease Germs.

Another disease which is very easily transmitted, from man to man by the flies is tuberculosis or consumption. These in groups dance around the sputum of consumptive patients who spit here and there carelessly. So, such patients must be careful enough not to spit indiscriminately. They should spit only into spittoons and such receptacles containing disinfecting fluid like phenyle.

It is of paramount importance that all foods should be cautiously covered so that the flies may have no access to them. Children should be forbidden to buy sweetmeats etc. from street vendors who expose them to the open attack of flies day and night. Each and every municipality and union must insist upon protecting the saleable edibles by proper wire-netting. Care must be taken that decaying vegetable matter, plantain peels etc. should not be thrown at random, but put in a covered dustbin till it is emptied by the rubbish waggon. In many houses the cows, hens and the dogs share the same room as human beings. No wonder flies multiply by millions in such places and become the breeding ground of disease germs. The stables and cow-sheds should be built at a considerable distance from the dwelling rooms. They should be daily and scrupulously cleaned and disinfected if they are to be free from flies.

All drains in and around the house must be covered up so that no stench may emanate from them, and lest the flies visit them and again come and sit on eatables. Occasional burning of dry neem leaves will keep the flies away.

Leprosy—Hints to the Health Staff Engaged in Propaganda

By

Dr. S. Rangaswamy, L.M.S.,

Dist. Health Officer, East Godavary.

CORRECT notions about the infectivity of the disease and methods of its spread must prevail among the health staff, who are responsible to spread this knowledge to others. The Public view this disease with extreme abhorrence or with absolute indifference both of which are objectionable and harmful.

1. This is a disease of very low infective nature so that it requires prolonged and intimate contact (as between husband and wife, parent and child or class-mates or playmates).The fear that mere sight or even touch will cause the disease is untrue.

A Disfigured Leper.

2. This is generally a disease of childhood (*i. e.*,) the infection is caught in early years only as the skin is tender then and generally from parents, relations or from those that handle them. It may take years for the disease to manifest itself aided probably by other factors.

3. As important as or even more important than infection is the diet factor. Defective feeding (particularly poor in vitamin B and protective factors) is responsible for the causation of this disease. It is co-existent with rice eating; it is absent in the Punjab and its increase in this district is chiefly attributable to the poor quality of rice of the delta and to the other factors like mills etc. So, reform of diet is as much important in the treatment of this disease as in its prevention.

4. Mere treatment centres can never check the disease nor eradicate it. The reason is that (1) early cases and some desperate cases do not resort to treatment. (2) Treatment does not at once make a case non-infective. On the other hand, in the reaction stage he may be more infective and if he cannot get back home after injections, he may even spread the infection to new people. (3) Every leper case will spread the disease to at least one more in a year and this

number goes on increasing so that for every case of doubtful cure by treatment the number infected will go on increasing in the same degree. (4) There are certain types of the disease which are not so harmful to others while others apparently harmless are very infective. Unless correct advice is given either unncessary alarm or criminal indifference will be the result.

5. Correct knowledge is essential to dispel the idea that it is a disease requiring social ostracism. It must be treated just as any other disease. There is no harm if the same clinic treats this disease along with others. Unless this notion is instilled into the ignorant as also the learned, early cases do not volunteer to take treatment. No treatment is of any avail unless taken up early. Legislation of any kind will defeat the object in the present state of our social condition.

6. Education and persuasive propaganda alone must be relied upon to achieve our objective.

7. The contacts of each declared case must be thoroughly examined to detect the first traces or even the suspicions of the disease. If these are children, more care is necessary to get them treated. Even adults require early treatment, further observation and care.

8. It was pointed out above that some cases are more infective. These cases must be advised to live apart from others of their family in the interest of the healthy. At least they must sleep away from the houses and not handle the children. If public opinion could be created to that extent it will easily be realised by the public that segregating the cases is a measure which is necessary in the interest of the general public. If that is realised some public charity or help may be forthcoming to put up some sort of habitation for the night stay of these very infective cases neither far away from the village nor in the very middle of it. Some of the very helpless people may even require some feeding help besides.

9. That even treatment requires such a prolonged course to produce any good result is another handicap to complete the cure in most cases. The necessity for improving the diet taking to ground rice by every family is once more impressed as a preventive measure for this disease.

10. Propaganda and education of the sick and healthy on correct lines, early treatment and observation of the infected and contacts, proper feeding of all, and segregation, as much as possible, of all cases particularly the infective skin-cases, these are the measures for the eradication of this disease. Every village must have its home to isolate and provide for those that cannot help themselves but are a danger to the public. It is the best philanthropy. A very great responsibility rests with our staff. Public Health includes welfare of all.

Fads and Fashions in Health

By Dr. Parmanand Ahuja, M.B., B.S., Karachi.

"The fashion wears out more apparel than the man".

—*Shakespeare.*

NATURE abhors monotony. Variation in shape, form or activity is the rule pervading plant and animal life in the world of creation. Human nature is no exception to this general all-pervading natural phenomenon. Human mind is ever busy and active in changing modes, manners and methods of physical, mental and moral evolution and expression. The application of the laws of health on the physical plane throughout the ages has followed the variable and changing spirit of novelty and curiosity. The apostles of fads and fashions have been as much busy in the domain of the physical development of the body as in the sphere of its extraneous adornment and sartorial embellishment. At the shrine of health man has burnt incense of diverse form and fragrance and worshipped with different rites and rituals in all times and in all countries.

Let us take the five essential elements which make up the health symposium *viz.* food, air and sunlight, exercise, cleanliness, rest and recreation.

Food.—Who can deny that the quality and quantity of food has passed through many vicissitudes from place to place, individual to individual and nation to nation. From the Epicurean feasting cult to the fasting gospel or from the dainty dishes spiced and pickled to the raw vegetables in the state of nature, are long strides. The simple meagre fare of the villager and the roasted, fried and dished up dinner of the modern man or the claim of those who can live healthy without touching an animal, are all pointers in the variability of taste and temperament as regards food. "There are the Eskimoes who feed almost exclusively on meat and fat and keep free from such troubles as gout, kidney disease and arterial degeneration. There are the West African tribes who live entirely on ripe bananas and banana flour". Again there are the people of the Hanza State in the Himalayas who subsist only on raw vegetables, fruits etc. drawn from the nurseries of nature. There are the belauded Masai Warriors whose diet is milk and blood. One school of dieticians wants you to flood your stomach with fluids along with meals, while the other school requires you to take very little fluid if at all, at the meal time but flush out the system between meals. Some teachers of dietetics advise you to chew your morsel 30 times before swallowing while others do not lay much score on chewing. In our country there are the U. P. and C. P. people, who must have a betel nut and pan every 1/2 hour of the day and chew the cud like the cow or buffalo even during sleep and again those of the Punjab and Sind and N. W. F. Provinces who very

sparingly indulge in this luxury. Of late the vitamine faddist is in the ascendant and he views every article of food through vitamine lenses. Patent and preserved foods from Cow and Gate milk to Bóveil and Brand's essence as builders of beautiful bodies, and bonny babies have their faddist friends as well as fashionable foes. The trio—tea, talk and tobacco, is a pleasant pastime with mary a man and woman as beguiler of time and remover of all aches and pains of the limb and lamb. People are not wanting however, who will not touch any of these with the longest pole.

Devotees of Bacchus have raised rhapsodies of rhyme and rhythm in praise of their care-free, joy-loving God who is being done to death now in several places in India by the torch-bearers of temperance.

Through these troubled waters we must steer a safer course and in the words of Prof. Mothram, a great authority, "No fads and only one fashion, which is to eat a mixed diet: in the first place dairy foods, in the second garden foods and thirdly foods from the sea" for those who cannot do without some animal food.

The Aryan conception of the sacredness of food has been emphasised by the Hauses in that "Food is a King and care must be taken to preserve its dignity, to treat it with honour and never to insult it".

Air and Sunlight:—Unchartered air and unchequered sun-light are, next to food, esential requisites for a healthy life. Congregation of large masses of the people into urban areas and industrial centres have deprived humanity of these free gifts of nature. In big cities and towns some conscientious municipalities have compensated the loss to some extent by providing parks and gardens as "lungs" for the thickly populated areas. On the one hand are those like Mahatma Gandhi who would not rest their heads but under the wide canopy of heavens even in December or January nights while on the other hand are men who would shut every window and door to keep out kind puff of breeze from sickness which requires it the most even on sweltering June or July nights. At one end we have men who will protect their heads and necks with thick helmet hats with 10" tail sticking behind and at the other we freely see men going about bare-headed in a tropical sun at all hours of the day. While anxious and fastidious mothers and grandmas will muffle up their children from top to toe even in temperate climate, free and careless ones will leave their little ones barely covered to allow full play of air and sunlight on the body. The Nudist cult of the modern day is apparently a rude reaction to the super-abundant stuffy civilized life of the last century. The solarium or sun ray's treatment on scientific lines of the whole host of diseases of lungs, joints, bones, belly etc. betokens the belated recognition of the boons of this monarch of our solar system.

Exercise.—The physical development of the body through health culture centres, gymnasia, akharas, Jui-jitsu, athletic feats and outdoor games like cricket, foot-ball. hockey, etc., has received attention in different shapes and forms. The yogic physical culturist will lay score by innumerable Asanas and Sadhanas as the panacea for all sorts of ills that human flesh is heir to by reference to an elaborate code of

contractures and contortions, twisting and turning of every part of the human anatomy. The Pugilist extols his art and skill which is reminiscent of the barbaric in man as the best developer of the muscles and sinews of the body. The Pahlwan is second to none to take pride in many tricks and tactics which he has perfected from time immemorial. The professor of athletics yields place to nobody in the manifold achievement of physical feats to systematically develop particular parts and portions of the human body. The Japanese teachers of Jui-jitsu have cultivated the art to fine perfection and claim irresistible offensive and defensive powers. Cycling, running, tennis, hockey, foot-ball etc., all have their ardent admirers as well as carping critics.

Cleanliness.—Is rightly claimed as being next to godliness and is very essential for healthful living. Personal cleanliness must be combined with civic sense of cleanliness to achieve the best results. In personal cleanliness we have those who would prescribe two, three or even more baths in the day and a bath after every call of nature or after every stroll outside the house thresh-hold as purification process after the alleged pollution irrespective of the season or hour of the day. There are others who would not touch water hot or cold, for days or even

Siddasana posture of Yoga.

weeks on end even during hot summer days and those who do after lapse of some days, will tolerate only hot water in a tropical country during

themselves on pearly white teeth till good old age untouched by any datan or brush throughout lifetime. At the other end are friend dentists who will

Jui Jitsu. Japanese way of Wrestling.

June or July months. Brushing or cleaning of the teeth is deprecated by one school of dentists and they illustrate certain tribes in Africa who pride

urge cleaning of the dental apparatus after every morsel of food. Purgation is anathema to our Homeopathic colleagues while some Allopathics

warmly advocate systematic 'line clearing' or 'internal baths' to cleanse the Augean stables as they pithily call it, every month or two both from above and below.

Civic sense of cleanliness is generally at a discount and the modern civilized man or the ordinary dweller in the city will not recognise that what is bad for him is equally bad for his neighbour. It requires the awakening of the public conscience to this patent truth in every walk and sphere of life and to evolve what may be rightly called citizen spirit.

Rest and Recreation.—Work, physical or mental, exhausts the cell energy. Rest and recreation restore the lost cell energy. Some faddists exhort the people to have 10 hours rest in 24 hours while their opponents eliminate the necessity for rest altogether and postulate the theory that man can do without sleep and what is required is only change of scene or occupation and support their contention with statistical data that non-sleepers, other things being equal, actually gain in weight. 'Kumbhakarnan's sleep of the Ramayana days is proverbial while the modern cult of delirious excitement, day in and day out, without any interval for sleep or rest is common enough phenomenon in this age of speed and spank. How best to negotiate leisure is a vexed problem with the wealthy classes. The 'sweated labour' longs for leisure and its whole life is a prolonged poem of pain and hunger.

Midday siesta is hailed as a refresher and restorer by some and tabooed as an evil habit, by others. Music—the liquid language of humanity—is the healer of the sick and soother of the jaded nerves and bruised bones but such commendable qualities have not deterred some dull and drab specimens of human species to denounce music as the "frenzied fervour of fools and fanatics." The stage and the screen have elicited encomiums as educators and inspirers of art and incentives to cultural advancement of the race. Still there is no dearth of detractors who will damn the stage and screen as an evil genius with its demoralising influence on the impressionable minds of the young.

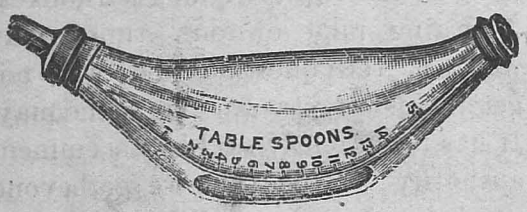
What is the way out of this interminable maze of intriguing paradoxes? A jesting pilot of our times may well ask the question and will not get an answer, stay as long as he may. It has been rightly said by an eminent authority: "It is when we go beyond general rules to possible variations that we run into danger and risk conflict with the varying customs and fashions and fads of nations and families and individuals, all viewing with horror or disgust those who act differently from themselves." The essence of perfection consists in suitable adaptation to circumstances and environments on the part of the individual, family and nation. Through the Scylla of extremism and the Charybdis of consevatism, a wise man has to steer the barque of life in the golden midstream to reach the promised land of health and happiness.

BABY'S BOTTLE

—— By Dr. B. Dutta,
Habiganj (Sylhet).

In these days feeding bottle is very commonly used in our country and indigestion amongst the babies is more frequent owing to inadequate care of the feeder.

Probably Allenbury's boat-shaped bottle which is covered at one end by a rubber teat and at the other end by a rubber bulb is most suitable for the babies. It has no corners or any grooves where the food can collect, so, this type of bottle may easily be kept clean. There are also some cheap imitations of that bottle in the market, but the bottle with long tube should never be used because it is practically



The right type of Feeding Bottle.

impossible to keep any long tubefree from stale milk and bacteria. Slipper-shaped bottle with a screw top is to be avoided as it is troublesome to clean it.

As soon as the baby has finished his feed remove the teat and bulb, wash them with a pinch of salt in cold water, turn inside out and repeat the process and thoroughly rinse with hot water, then dry and store them in a clean covered jar. The bottle should also be washed immediately first in cold, then in hot water and should be kept in cold water; but atleast once daily it should be scalded.

A smaller hole in the teat is better for a strong child and too large a hole is bad for them; for,many hungry infants will finish the meal in haste and as a result of that afterwards suffer from colic and vomiting. But a weak and premature child requires a free enough opening, to allow the infant to draw in the milk without great effort. The hole of the teat for the average children should be such that the milk will drop out at the rate of one drop a second when the bottle is inverted. The teat and bulb may enter easily while both ends of the bottle are moistened with water. The teat of the bottle should never be placed in the mouth of the mother or of the other children.

At the time of feeding, the young child should be on his mother's knee and to be held in a half-reclining position upon the left arm and must not be left in bed at feeding times. While for any special reason the baby has to be fed in its bed,the bottle must be held the whole time ; the practice of keeping the bottle against the pillow and leaving the child to feed itself is very bad as in such a condition much wind is swallowed and indigestion follows.

Regularity of feeding is most essential with bottle babies. During the day time 3 or 4 hours interval and at night a long rest for the stomach are necessary. The stomach should be empty at meal time, otherwise acid remnant of the last food will come in contact with the next meal and produce sour vomiting and indigestion. Little quantities of food at short intervals is not only unnecessary

but actually harmful, as in such conditions, digestive organs have no rest.

An infant food should be given at a temperature of 100° F. and never be given colder than 98° F. Any food left in the bottle, should never be saved for the next feed, or never force the baby to take it if he does not want it; a little under-feeding never does any harm.

Cow's milk is most convenient for general use for the bottle feeders though babies can't digest it so easily as mother's milk. The mother's milk when it reaches the stomach, is met by acid fluid, which converts the small amount of casein in the milk into diffused minute fragments and are digested by gastric juice and absorbed through the walls of stomach and intestines. Most of the protein in mother's milk being soluble whey protein, it is absorbed at once, but the protein in cow's milk is mostly casein not whey protein and when it enters the stomach, instead of clotting the tiny flakes, it produces such hard lumps that the gastric juice digests them with great difficulty; of course small quantities of whey protein are present in it, which are absorbed at once.

The casein can be softened by adding 1 grain Sodii Citras in each ounce of milk. It is better to dissolve it in a little water at first and mix it with the milk just before feeding. It is only to be given for the first few days and gradually to be discontinued, as it lessens the value of milk by destroying vitamin A, which remains in fair quantities in milk and promotes the growth of all the tissues and produces a high rate of resistance to infection.

Where possible, milk should be obtained fresh twice daily and all milk must be brought to the boil before use. Milk should never be left uncovered specially during hot weather, but should be stored in a cool place where flies are unable to get at it. The flies are the greatest enemies of infants and children.

Fruit juice should be given daily to every bottle-fed baby to prevent scurvy. One or more tea-spoonfuls of orange juice should be given daily either in the bottle or with a little water; it is also useful to secure a regular action of the bowels. Tomato juice also is very good and can be given like orange juice in the same way, but grape juice is less valuable.

To prevent rickets, Codliver Oil should be given to every bottle-fed baby daily during winter and spring but never give the full dose at first, begin it with a few drops at a time until baby is accustomed to it.

Water should be given to the babies between their meals specially in hot weather.

These feeds for the Indian babies I prefer to give with a spoon, and not a bottle where particular care is impracticable; teach the baby to drink from a small cup or glass as soon as possible.

Evils springing from the root of Drunkenness

By Dr. R. R. Sukla,
Kekri Hospital, P.O. Kekri (Rajputana).

It expels reason. Drowns memory. Distempers the body. **Effaces beauty. Diminishes strength. Corrupts the blood. Inflames the liver.** Causes internal, external and incurable wounds. Is a witch to the senses. A devil to the soul. A thief to the purse. Beggar's Companion. Wife's woe, children's sorrow, makes man become a beast and a self murderer who drinks other's good health and robs himself of his own. Nor is this all. It exposes him to **Divine displeasure;** here and here-after to Eternal destruction. Such are some of the evils springing from the root of **Drunkenness.**

Management of Infant Just after Birth

By Dr. S. K. Shrivastava, L.M.P.,
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A LITTLE neglect during or just after delivery leads to great danger of life to the infant. To have peaceful delivery and healthy child, a few important points should be noted :

Delivery Room:—Now-a-days, specially in towns and cities, Child Welfare centres are established which are supplied with up-to-date labour rooms attended by qualified lady doctors and nurses ; Government and State Hospitals too are provided with such rooms for the purpose. If it be conveniently accessible, every expectant mother should be brought here for delivery. But commonly, people do not like to have normal deliveries in hospitals and centres. They wish to have them in their own houses and dwellings. In the house, a separate room should be selected, well ventilated and lighted. If it be winter season, a smokeless Sigree (Iron Pot) should be kept ignited in a corner of the room to keep it warm. Unnecessary furniture should be removed.

Attendants. — Attendants to help the mother during and after delivery should be very clean, keen and alert, the most preferable would be a qualified nurse. Three assistants are sufficient. No gathering in the room should be allowed.

Accessories.—Boiled and sterilised scissors and linen or silk thread for ligaturing the cord. Tincture Iodine to touch the cut cord. Sterilised dusting powder (Boric acid, amylum and Zinc oxide in equal parts), piece of sterilised gauze to cover the wound, a piece of flannel to receive the child, sterilised swabs and pads to change soiled pads of the mother, a pair of well washed *Dhoti* underwear for mother to change, two absorbent towels, a bucket of hot water to clean the parts of the mother and to give bath to the child.

1. Care of the eyes of Infant.—As soon as the head is born and before the eyes are opened they should be cleaned from outside without opening them with a clean swab dipped in 1% Boric lotion so that the eyes may not be infected from the mother's vagina.

2. Breathing.—Usually as soon as the child is completely born, it begins to breathe and cry ; but sometimes it does not. If so, gently strike the child on buttocks with a slap or sprinkle cold or hot water and remove the mucus from the mouth and throat of the child with a cotton swab round your little finger, because this mucus often prevents the child from breathing.

3. Umbilical cord.—Usually soon after the child is born, cord is tied about an inch from the umbilicus and divided with the sterilised scissors. The thread used in the ligature should be thoroughly boiled : preferably linen threads 3 or 4 together should be used to avoid cutting of the cord. Ligature should not be too tight, otherwise it might lead to primary haemorrhage from the stump. Ligature should not be applied immediately but after a few minutes when the cord has ceased pulsating. Tr. Iodine should be touched at the end.

4. Bath.—After the cord is tied

and divided, the body of the child is rubbed with warm common oil (mustard oil) in order to remove Vernix Caseosa from its body. Vernix Caseosa is a greasy fatty substance covering the body of the child. Before the birth, the child lies in a bag of fluid in the uterus. It prevents the fluid from entering into the tissues of the body. The child is now given bath with warm water and soap. The child should be thoroughly dried with absorbent towel. Stump of the cut cord should be well dried, touched with Tincture Iodine, dusted with dusting powder and covered with sterilised piece of gauze. The stump should be turned over the abdomen and wrapped with a piece of flannel to protect the child from cold.

5. Crede's Prophylaxis.—After the bath one drop of 1 % Argente nitras solution is put in each eye of the infant to prevent ophthalmic neonatorum due to gonorrhoeal vaginitis in the mother. Every mother has not got gonorrhoea but still silver nitrate solution is put in every baby's eyes for the sake of prevention because this disease is very bad and causes blindness.

6. Stool.—Every child should be thoroughly examined for its natural passages rectum, vagina, external meatus of urethra and ear. Cases of imperforated anus and vagina are commonly seen in practice.

For the first three days, the infant passes soft, dark-green-coloured motion called meconium ; the colour is due to bile pigments. From the fourth day, the stool becomes bright yellow and the infant may pass two to three motions per day. If it be constipated, 15 to 30 minims of refined caster oil should be given to the child (Allenbury's caster oil.) The napkins or cloth which are tied on the buttocks should be changed whenever wet with urine and faeces ; otherwise, the buttocks will be irritated and their skin will become sore; if there is,apply zinc ointment. Sometimes child passes white dark motions due to bleeding from intestines—a condition called "Melæna Neonatorum". Its treatment is to inject hypodermically about 10 c.c. of horse serum.

7. Urine. — See that external meatus is free and open. Sometimes plug of vernix caseosa blocks the opening ; if so, remove it. Usually there is no trouble but sometimes the infant does not pass urine ; give then hot bath and make the child sit in the bath for sometime ; failing this, pass a very small size rubber catheter number one or two.

8. General Hygiene of the Infant-Bath.—Give the child bath every day and the child should be kept clean specially from urine and faeces.Everyday it should be brought to the sun.

Clothing.—should be loose and according to the season, cold and warm. In cold climate, there should be a flannel binder round the abdomen and woollen jacket round the chest.

Feeding.—Feeds to the child should be graduated in fixed hours. 4 times a day and twice at night ; after six months, four times a day and once during night. After the 9th month the child should not be fed on mother's milk, as it now becomes very poor in dietary value.

Weighing.—Weight of the child should be watched at least every week. At birth it is— 5 to 6 lbs. A slight loss of weight occurs during the first few days of life ; the child then takes a rapid growth putting about 4 ounces a week so that at the end of 6 months, its weight goes to about 11 to 12 lbs.

Measures to increase the Circulation of Blood.

These are most important. The postural exercises described by Buerger are very effective in stimulating the development of a collateral circulation. The details are as follows :—

First Position :—The patient lies in bed with the feet elevated at an angle of 45 deg., and resting on a support. Elevation is maintained for two minutes.

Second Position :—The patient sits on the side of the bed, with the feet hanging down. During this phase, which should last three minutes, the patient should systematically dorsiflex and plantarflex the feet, then invert and evert the feet, then flex and extend the toes.

Third Position :—The patient lies flat in bed, with the feet wrapped in a warmed blanket. This phase lasts five minutes.—*The General Practitioner.*

Baldness and its Treatment.

Baldness results as one of the changes belonging to old age, due to wasting of the skin, hair sacs, etc. It may occur as a result of some acute disease or at an unusually early age without any apparent cause. In both the latter cases it is undoubtedly due to defective nourishment of the hair owing to lessened circulation of the blood in the scalp. The treatment for preventing loss of hair or for loss resulting from fever consists in means that will quicken the circulation in the scalp, such as washing the head every morning in cold water, then drying with a rough towel by vigorous rubbing and brushing with a hard brush till the scalp becomes red. A stimulating lotion should then be well rubbed in for several minutes. A good prescription is :—

Sweet Almond Oil	...	1 oz.
Strong Liquor Ammonia	...	1 oz.
Spirits of Rosemary	...	4 oz.
Water	...	2 oz.

—*Healthy Life.*

Common Salt as a Medicament

Common salt may perhaps be dispensable in the general diet of adults but not when large quantities of water are taken nor after profuse perspiration. The kidneys cannot eliminate pure water, so that when much water is taken, sodium and chlorine are withdrawn from the body and must be replaced. There are, therfore, physiological reasons for the habitual beer-drinker's desire for the salted radish of Munich, for salt biscuits and salted herrings. With physical exercise that causes sweating, up to 18 gm. of salt are eliminated per day. In very hot countries, therefore, the consumption of salt is a necessity. Convulsions due to heat have been observed to disappear promptly when NaCl (salt) is given.

Common salt is therefore of considerable importance as a remedy, and has relieved or cured the troubles of a large number of sick persons, has indeed often saved life.—*The General Practitioner.*

The Onion Promotes Physical Endurance.

The onion has been used as a remedy from time immemorial. It was regarded in antiquity as a diuretic of the first order. Dioscorides recommended it, and Pliny vaunted the efficacy of its juice in dropsy. In the British Flora Medica we read of the onion: "The juice is applied to burns, chilblains and bites or stings of insects".

Of garlic, a species of onion, Robert Bently observes: "As a medicine it was held in great repute by the ancient physicians. It is stimulant, diaphoretic, expectorant, diuretic and tonic. In intermittent fevers it is a highly esteemed remedy in India. A stimulant and stomachic in enfeebled digestion and flatulence, and expectorant in old chronic catarrhs".

Modern experiments have demonstrated that the onion is of value in stimulating the digestive juice. This effect may be partially due to the "appetite juice" engendered by its savoury qualities.

A French military physician, Dr. Melamet, during the World War treated the influenza patients at his hospital at St. Servan by giving them daily from the beginning of their illness the juice of pounded onions three times a day in a warm infusion. Under this treatment the fever abated in less than two days. Only one who had refused the beverage was attacked with broncho-pneumonia.—*Oriental Watchman.*

Encouragement for Italian Parents.

Signor Mussolini has submitted to the Italian Chamber of Deputies a bill which embodies recent decrees calculated to encourage a higher birth-rate. Parents with five or more children will pay lower school fees, lower income-tax, lower house tax or none at all, according to the number of offspring. Large-family bonuses formerly limited to working-class families will be extended to State employees. Unmarried civil servants will recive lower salaries than married ones; childless couples less money than those with five or more children. A Fascist Union of Large Families has been set up with a maximum State subsidy of £ 80,00,000 a year. Marriage loans will be made to couples under 26, providing their joint incomes do not exceed £ 120 a year. The loans vary from £10 to £30. Reimbursement should nominally begin 12 months after the wedding day and be paid off in 10 per cent. instalments, but this is reduced if the couple have a child within that time. For each child born subsequently the reduction becomes larger. After the birth of the second child 20 per cent of the loan is cancelled. If 10 children are born within as many years of the marriage the loan is wiped out. In competitive examinations for civil service promotion the fathers of five or more children will be preferred to those with two or none. Private employers are called on to encourage early marriages and large families by paying higher salaries to married employees, and preferring the married ones to the single.—*The Medical Officer.*

Bane of Sheltered Life.

Exposing the body to open air affords the best and cheapest way to attain good health and build. This opinion

was expressed by Dr. Otto Kestner of the Rowett Institute at the Blackpool annual meeting of the Association for the Advancement of Science.

Dr. Otto divided the climates into two categories, one the sheltering climates and the other the stimulating climates.

The most sheltered climate, he told, is the inside of our homes. It may be good for certain patients or weak children but the stimulating climates have a higher psychological value, especially for growing children and youth.

Better Appetite.

There may be some unknown factor, but as at present known the climatic stimuli are sunshine, cold, air, wind and rolling waves.

And he referred to the experiment made on children who, for several years, lived ten months in town and two months in the stimulating climate along the North Sea. It was found that the children grew only in the two months putting nearly 600 grammes or more of living tissue in a month under the influence of that climate.

Stimulating climates, he further added, increased gastric secretion and appetite, but the stimulus works only through the skin.

That means that we must expose our skin to the stimuli of climate.

In the most sheltered climate inside our homes, there is no wind and the sunshine cannot reach the inside of our rooms. That means we have no stimuli in our rooms.

Man, he further added, has a better temperature-regulation than the animals by changing the size of the capillaries of the skin. This better adaptation is one of the superior points which has made him ruler of the earth. In sheltered climates the skin cannot do its duty. And therefore it is most important for the health of the nation that children and the adults know that good development can be achieved only if they expose themselves to the stimuli of a climate. And this applies to the tropics also.—*The Burma Medical Times.*

Evils of Heavy Clothing.

The following are some of the chief evils of clothing.

(1) It keeps off air and light from the skin.

(2) It obstructs the skin from performing its eliminative functions.

(3) It causes retention of heat in the body.

(4) It accumulates on the whole surface of the skin, the poisonous products thrown out from the body, through each of the millions of the pores of the skin.

(5) This unclean accumulation, chokes the mouths of millions of little sewers which should be engaged in eliminating these poisons and thus obstructs their work.

(6) It keeps the body surrounded by evil smelling vapour which being unable to escape the skin is compelled to reabsorb.

(7) It lowers resistance against disease.

(8) It invites sun stroke and heat prostration.

(9) It bars full play of muscles.

(10) It retards natural growth of the body.

(11) It constricts the action of abdomen, where the cause of every disease originates.

(12) It causes susceptibility to colds.

(13) It covers a multitude of sins, the first of which is dirt. No godliness without strict cleanliness.

(14) It hides the physical imperfections of the body, which if remaining exposed to the public gaze, every effort will be made for their correction. —*The Indian Naturopath.*

Safe and Scientific Fasting

THAT there are some benefits to be derived from fasting cannot be denied, provided the fasting is conducted in a scientific manner. Among these may be mentioned:

(1) The rapid disposal of surplus fat, when this seems advisable. In general, gradual reduction is decidedly preferable.

(2) Reduction of blood pressure.

(3) A short fast sometimes increases appetite and ability to utilize food.

There are several methods of fasting by means of which one may secure all the advantages of the prolonged fast without any of the dangers and inconveniences which long fasting involves. A one-day fast now and then is found by many individuals highly beneficial in recovering lost appetite, relieving headache, dullness, depression and various other unpleasant symptoms. The fasting should be accompanied always by copious water drinking. Four to six quarts daily will be none too much. A good plan is to take a glassful of water every hour. Fruit juice may be added to the water to give it flavor. An ounce of agar, psyllium seed, or Kaba, should be taken during the day for bulkage. It is also well to take at bedtime an enema consisting of three or four pints of water at 100° F. to 105° F. with the juice of one or two lemons added.

What may be called a protein fast will yield excellent results. This is living a week on greens and fruit. Fresh or canned tomatoes should be used liberally, with fruit juices of all sorts and melons. Twice a day a liberal serving of greens, four to six ounces, should be eaten with large servings of lettuce and celery.

In complete fasting, symptoms of acidosis, nausea, headache and lassitude make their appearance by the second or third day, owing to the fact that the glycogen or stored carbohydrate of the body has been consumed so that the fats and proteins are not well burned and the poisonous acid products resulting are beginning to accumulate in the tissues. Recent studies of metabolism have shown that by repeated short fasts, the tissues may be trained to burn the fat more completely, so that acidosis is postponed and is less pronounced. By this method, the patient fasts first for one or two days, then eats sparingly for two or three days, then fasts again for two or three days. After another interval of low feeding, a still longer fast of four or five days may be taken without developing unpleasant symptoms. This method of fasting may be employed for fat reduction in certain cases when fasting is resorted to for clearing the body of toxins or temporarily to reduce the work of the liver and kidneys to a minimum. The protein fast by means of a fruit diet affords, however, the ideal method, rather than absolute fasting.—*J.H.K.* —*Good Health (U.S.A.)*

Eating and Drinking

He who drinks and has no thirst,
Or eats and has no hunger,
Unlike him who puts health first,
Suffers illness and dies younger".

—*The Medical World.*

* * *

Worry

THERE is only one worry to be avoided in this world. It is not about yourself; it is not about others; it is just worrying about worrying about.—*The General Practitioner.*

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Handicrafts as cure for nerves.

AN experiment to counteract nervous troubles among patients by providing them with hobbies is now in progress at the Institute of Medical Psychology in London.

It has already been shown that work with the hands can frequently play an important part in the course of treatment.

Besides loom-weaving, patients can take up, under expert volunteer teachers, many other crafts such as modelling and casting, rug-making, fretwork and lino cutting and printing. —*Burma Medical Times.*

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Physiological Effects of Mastication.

MASTICATION (a) stimulates the salivary and mucous secretions which play an important part in promoting oral hygiene, (b) it causes the teeth to move both vertically and horizontally—to dance as it were—in their sockets, thereby stimulating the circulation of blood and lymph in the periodontal tissues (including the bony sockets surrounding them), and the gingival sulcus; (c) vigorous mastication furthers the friction of detergent foods against the enamel caps and tends to cleanse and polish them.—*Medical World.*

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Captain Cook's Dietetic Discovery

CAPTAIN Cook noticed that scurvy did not appear if he gave his men pickled cabbage and lime juice.

Cook was the real discoverer of protective foods. For the foods that protect us from scurvy protect us from a vast range of other ailments.

But, whereas the great navigator made his discovery about protective foods by chance, the scientist essayed to discover *why* a crew fed on pickled cabbage, sprouted barley, or citrous fruits kept their health, and why those whose diet lacked such foods fell sick.

After considerable research it was discovered that some foods contained a mysterious substance necessary to health. It was also discovered by experiment that there could be no health without such foods.

These substances were next isolated and classified. The name *Vitamin* was invented for them.—*Health for All.*

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Asthma in Children

J. COMBY from an observation of 75 cases of asthma commencing in children during infancy finds it more

frequent in boys than girls, even sometimes affecting the male of twins of both sexes, and commoner in the well-to-do than the poor. The prognosis is never so grave as when developing in adults. There seems to be some close relation with infantile eczema, but none with tuberculosis or enlargement of the thymus. Tonsillectomy was invariably useless, while the condition seemed unaffected by injections. Comby has little faith in drugs, although mixed injections of suprarenal and pituitary give relief during the paroxysms. But he finds most satisfaction from iodide and sulphur, at the same time regulating the diet, reducing flesh-foods, and increasing the vegetable constituents. — *Paris: Archives de Medicine des Enfants.)— The Medical World,*

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Spinach not so Good.

Spinach, because of its flavor, has been the chief dependent among fresh vegetables as a source of iron and lime, of which, according to the chemists, it contains an unusually high percentage; but according to recent researches, spinach is not so valuable a food as it has been supposed. Careful study by Macy, in which three and one-half ounces of spinach were fed to each of a large group of children daily, showed that the lime of the blood actually diminished instead of increasing, the lime is rendered unusable by the considerable amount of oxalic acid present. The oxalic acid combines with the lime and produces an insoluble compound which the body cannot utilize. And the surplus acid present robbed other foods of their lime, so that when spinach was depended upon as the chief source for lime, the lime content of the body was lessened.

Foods are now being studied by an increasing number of experts whose discoveries, sometimes startling, are compelling a constant revision of old ideas concerning foods and feeding, and are providing new and important food remedies for widely prevalent nutritional disorders.

Beans of all varieties are a rich source of iron, as is also whole wheat. Watermelon contains more iron than does cow's milk, and cantaloupe contains twice as much as milk. —*Good Health U. S. A.*

* * *

Painless Vaccination.

If public health officials adopt the new vaccine offered by the Rockefeller Institute, vaccination for smallpox will lose practically all its disagreeable aspects. The painful sore, the stiff and aching arm, the probable illness, and even the ugly disk-shaped scar will all be eliminated. Rockefeller Institute scientists have developed a vaccine which effects immunity to smallpox without any of these dreaded results. The new agent is injected into the body with a hypodermic needle, and the only results are the appearance of a slightly red spot around the point of injection and an occasional rise in temperature which does not seem to cause illness. The chief difference between this new vaccine and the old is the method of its preparation. Test tubes have been substituted for the bodies of living calves. — *Oriental Watchman.*