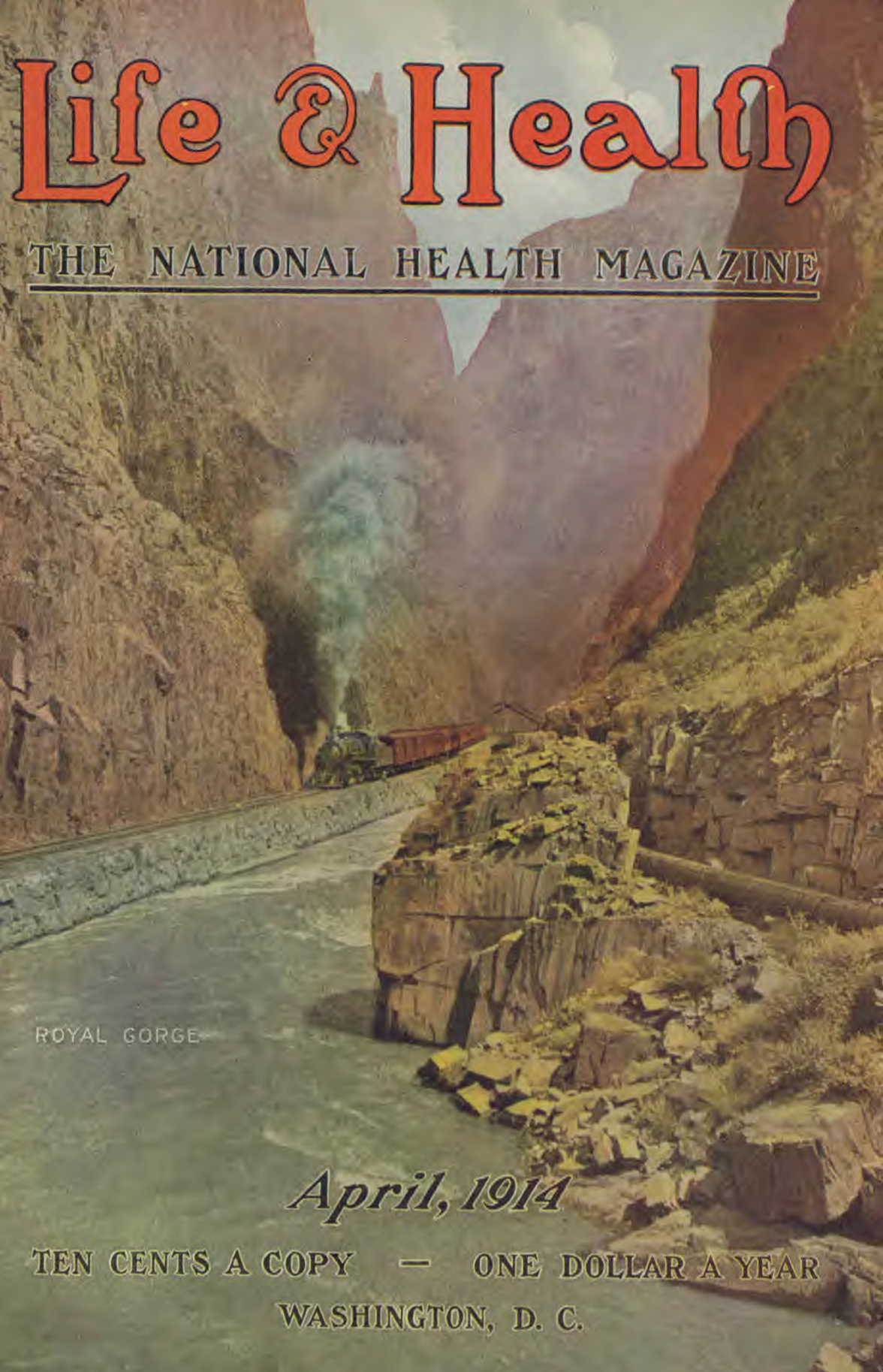
Life & Health

THE NATIONAL HEALTH MAGAZINE



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April, 1914

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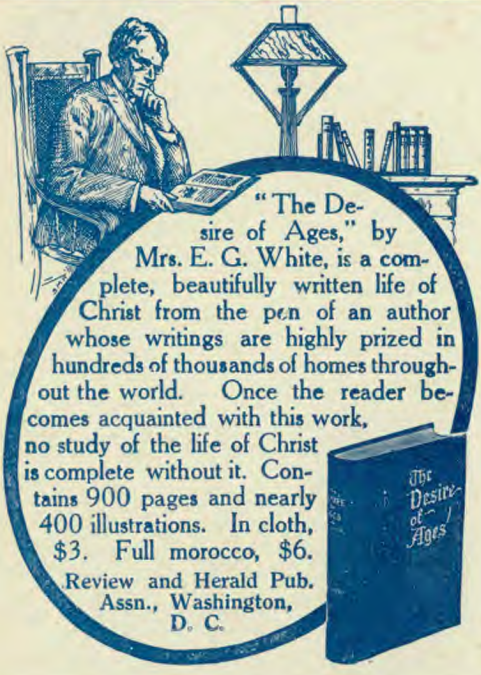

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1914

AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home.

George Henry Heald, M. D., Editor

Homes

ENGLAND is preeminently a nation of homes. Perhaps nowhere else does the word HOME or its equivalent have quite the significance that it does on English soil. In fact, some languages actually lack a word signifying home. We in America have much to learn from the English regarding the art of home making, and especially home making for the poor. The garden cities, where each tenant is capitalist and owner as well as tenant, and where every neighbor is interested in the welfare and beauty and healthfulness of the entire neighborhood, have not yet become an institution among us.

A ROW OF COTTAGES, BOURNVILLE

HINTS ON PRACTICAL HEALTH TEACHING

JAMES FREDERICK ROGERS, M.D.

ONE of the interesting developments in the field of practical training in physical education is that of the Athletic League of the Public Schools of New York City. Modeled after the methods employed in athletic training of adults, pupils entering this league are obliged to stand well in their studies, to carry themselves in a gentlemanly fashion, and are expected to observe certain rules as to their eating and drinking and hours of sleep, and, of course, to abstain from narcotics.

They find themselves under the general scrutinizing eye of their fellows as to their conduct, and feel that the results of their training are far more important than any mere pleasure of personal indulgence.

Each pupil is aware of what college athletics and prize fighters must undergo by way of training, and through sheer imitation of those whom they look upon as heroes of the hour, they gladly go through the same process and undergo the same "hardships" in the hope of proving themselves miniature heroes in the athletic field. The boy, like the man, will always do, at some sacrifice, that which he knows will finally benefit himself, and so will show something beyond purely selfish enthusiasm when cooperation is essential to success. Such spontaneous and purposeful training must be more beneficial, not only physically but also morally, than that method in which he is driven through the mere routine of formal gymnastic exercises at the end of which there appears no prize.

Above all prizes, however, and above any immediate effect on nerve, muscle, and nutrition, is the lesson unconsciously learned (and also assimilated) of some of the rough essentials requisite for bodily care, or, at least, for strength and endurance. He has learned from experience that obedience to certain laws of hygiene, through a little pleasurable self-sacrifice, improves the general bodily condition.

This is better than the reading of whole libraries of physiology, the facts of which, as taught, fail to produce any practical results at all commensurate with the time and labor spent on them. Even the conveyance of exaggerated information as to the effect of narcotics, which has been the chief aim of the teaching of physiology in the public schools, has produced little effect, for the examples on every hand fail to carry out the teachings of the books. The personal experience of benefit from the temperance which an athlete in training must undergo, leaves real impressions, truthful, and not to be forgotten.

For pedagogical purposes, here is the finest condition of receptivity that could be desired for the grafting of the theoretical on the practical. The very practice of this training must call forth some inquiry in the child's mind as to the wherefore, and we shall venture that such children will know more about the general theory of nutrition than any book-taught pupils without a similar practical interest. It is easy to go from the concrete to the abstract, and impress the truths of physiology and the laws of hygiene for the general purposes of life. In our present-day interest in the health problem, it might be an easy step from such a league for athletic purposes to a league for superior mental attainment, in which a simple, temperate diet, sufficient sleep, regular exercise, etc., would

have a meaning, if it were pointed out that the well-balanced great ones, the men who have really done work large in quantity and quality, were men who kept themselves above par physically. Especially would such a "league" be a godsend to those pupils who most need it, those who do not have to be driven to school work, but who, in their scholarly ambitions, tend to neglect exercise, fresh air, and the care of the body generally.

If the training of such a league should be made obligatory for those who would enter any contest for high scholarship or for prizes, it might reduce the number who later find their way to sanitariums as victims of nervous (which means physical) exhaustion.

Parents of the class from which such students come would cooperate in such a scheme, for, as a rule, they are of that strenuous type who have felt keenly the need of the utmost physical stamina in the struggle for the amount of this world's goods or the attainment of high places, which they consider make life worth living. It is needless to say that experience of this kind of training appeals to us in the form of an improved instinct of bodily care. We make habitual the doing of things which give us a feeling of well-being. Even a savage can appreciate the effect of bodily influence on mental condition, and the Amazulu have a proverb which says, "The stuffed body cannot understand hidden things."

If such an organization for improvement of mental work through a reasonable treatment of the body could be extended to include the teachers, it would add strength to such a movement. As probably the majority of these have hardly known the A B C of bodily care, much less followed it in practice, it would have a greater beneficial result than might be anticipated, though to make it habitual would require some effort with adults.

For the girl, there is, perhaps, no physical ideal such as that which inspires the boy. It is neither to be hoped nor wished that she will set up a Smith or Wellesley athlete as a model. Dame Fashion continues to rule with a heavy hand, and keeps up her ancient strife with Nature. Still, there are practical examples in the women who have attained eminence on the stage, in music or drama, for whom beauty and health are necessary, and whose strenuous work requires excellent bodily care. From emulation of these, it is but a step to such health hints as are necessary to good nutrition, a clear complexion, and bubbling spirits. When some of these secrets are appreciated by personal experience, Dame Fashion will have to look out for her laurels. Indeed, in many ways she is already fast losing her grip.

It is remarked by a shrewd English physician, in regard to the care of the teeth, that it "seems probable that the claims made on the score of appearance and beauty will be sufficient to maintain us as an order of tooth-bearers, when, if actual health were the sole appellant, our teeth would be allowed to lapse into desuetude." This points again to the hinge on which the opening of the door to practical health teaching must turn. The teeth would make an excellent beginning, especially if it could be impressed that the preservation of these structures is brought about more by observance of the general conditions of bodily harmony and cleanliness than by any local treatment. A fox or a lion needs no toothbrush, nor does he visit a dentist.

Then the matter of "bad breath." How can a young lady prove attractive with such a condition? Indeed, as a distinguished physiologist has observed, bad breath has caused more unhappiness than all the bad laws ever enacted. And here is a grip upon the question of diet and internal cleanliness which makes us even more godly, or at least less ungodly, than cleanliness of the outer surface. We shall not go further into details, for this is intended only as a hint to practical workers along lines which are fast developing.

THE BUSINESS MAN'S LUNCH

A. B. OLSEN, M.D., D.P.H.

THE average business man is obliged through force of circumstances to lead a highly artificial and more or less sedentary life, at least during the working hours of the day. He is often subjected to more or less close confinement and, very frequently, under unhygienic conditions. We must remember that the business man is a brain and not a muscle worker, and therefore he has little or no chance, as far as his work is concerned, to counteract and neutralize the unwholesome conditions under which he is compelled to work. He is often hurried in his work, and worried, too, and as a consequence he is likely to have a less vigorous digestion than the muscle worker. Coming to lunch in a hurry and with limited time, he finds it necessary to make a careful selection of digestible food, and adapt the size of his lunch to the time at his disposal.

To begin with, the business man would do well to provide himself with a substantial breakfast and allow himself plenty of time to eat it, preferably without the aid of a newspaper. In the morning, after the night's rest, the stomach is quite empty and recuperated, and thus better prepared to deal successfully with a square meal of wholesome victuals. A good breakfast makes an excellent foundation for the day's activities, while a hurriedly eaten meal and a rush to the train, street car, or tube is not infrequently the precursor of dyspepsia and constipation.

A few, like that grand nonagenarian, Lord Strathcona, solve the problem by adopting the two-meal system and doing without lunch. In the case of the high commissioner at least, this plan appears to have worked admirably, and we know of a very considerable number of persons who follow the same custom. But while it is true, as Mr. Frederic Harrison has been telling a *Daily Mail* reporter recently, that many eat too much, and he might have added, too often, and while some business men would do well on two meals a day, still we may well question the wisdom of the majority of our business men lunching on nothing but a glass of water. With no lunch, we fear there would be no break in the business day, and the lunch hour of relaxation, aside from any food partaken, is of itself a safety valve, and is essential to the maintenance of good health.

But we should not advocate a heavy or elaborate lunch with one or more varieties of flesh meats. There is not the slightest doubt but that altogether too much animal flesh is eaten by the majority of business men, and we should suggest that flesh meats be cut out of the lunch. Lord Strathcona also tells us that he eats very little meat, practically none; and this we think is a commendable habit.

A simple, light lunch might well consist of a poached egg on toast, or a glass of fresh milk, or Metchnikoff soured milk, with bread and butter, preferably whole-meal or brown bread, and some fresh or stewed fruit. Those who do not care for the egg or the milk might have a few nuts, such as hazelnuts, Brazil nuts, pine kernels, or walnuts. Few realize the splendid food value of nuts. Professor Thompson of Cornell Univer-

sity, speaking of nuts, tells us that "eaten with fruit they are an excellent form of food, and if carefully selected and thoroughly masticated, their coefficient of digestibility is high for persons in health, and they furnish very little residue of waste." Their digestion depends very largely upon thorough chewing, and the reason why people sometimes find nuts difficult of digestion is because they fail to masticate them properly. Newman has told us that "no man need starve on a journey who can fill his waistcoat pocket with almonds." A handful of almonds or other nuts, and a handful of raisins, make both a tasty and a nutritious lunch.

In this brief paper we can offer only a few suggestions and a bare outline of what an appetizing and at the same time health-giving lunch might consist. We must bear in mind that we eat for at least two reasons: not only to gratify a more or less fickle and perverted appetite, but to satisfy hunger, that is, the call of the body, of the vital organs, for fresh supplies of nourishment with which to maintain life and health.

Chicago Health Department - Educational Poster No 126 Designed by, Dr C St Clair Drake

THE BUBBLE FOUNTAIN

EVA J. DEMARSH.

[The bubbler is not always all that might be desired from a sanitary point of view; but possibly Miss DeMarsh has seen it at its worst. It has some redeeming features.— Ed.]

THE name sounds good and clean and sanitary, does it not? Men tell us it is all these things; but is it? You remember how for years we quenched our thirst at the public drinking fountain, with never a thought but that it was all right to do so. True, there were times when we had a squeamish feeling about it, but we put that aside with our scruples concerning one common communion service.

Suddenly, a campaign was on, our eyes were opened wide, and we would neither drink from the public fountain nor commune from the common cup. Very good; a wise and disease-destroying reform was then and there inaugurated. No longer does the mother place to her baby's lips the rusty cup from which some foul-mouthed brute has just quenched his thirst. But what have we instead? — Why, the "bubbler," which looks clean and white, at least until the iron in the water does its work. Freely the liquid bubbles up and falls back, laving the sides of the basin and apparently washing away all filth. No longer do we carry the "sanitary drinking cup;" little opportunity or occasion do we have to use it. Instead, we firmly grasp the hat in the left hand, stoop as gracefully as we may, put our lips to the bubbling stream, and snatch such refreshment as we can. Surely it reminds one of childhood's days at the old spring, and it may be something of this was in the mind of the man who designed our bubblers.

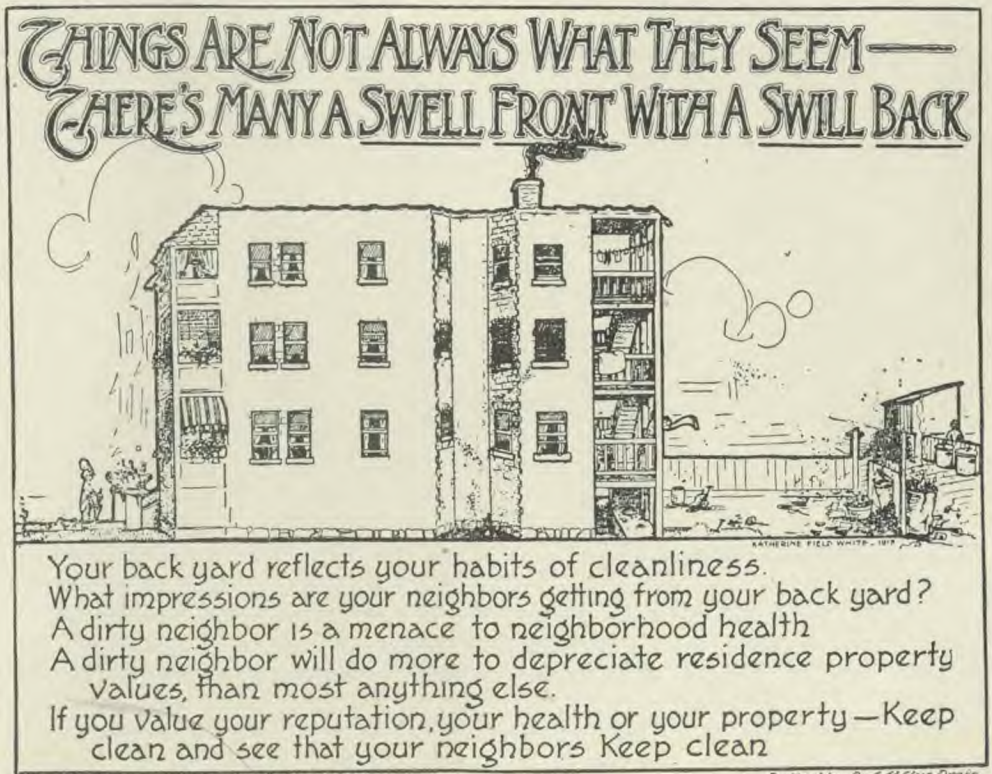
Would I drink from the bubbler? — Not on your life. Too many times I have seen foul lips touching its marble basin, too many times have fouler mustaches been laved in its cooling depths. True, the water is in constant motion; but it is cold water, and who believes that germs die in cold water, or are thoroughly washed away by it? The bubbler is not sanitary. It is as foul and dangerous as was ever the old drinking fountain, perhaps more so; for at the fountain one could use his own cup, whereas at the bubbler he must come in unpleasant proximity to the place where the tramp and the drunkard have left their impress.

A thousand times better satisfy our thirst with fruit juices or cooling mints, or allow it to go unquenched, than drink at the public bubbler. Scarcely an argument against the drinking fountain that is not equally applicable to the bubbler. In the interests of health and convenience, away with it. Children must stand on tiptoe or be lifted in order to reach it; it is awkward and inconvenient for the normal man or woman; impossible for the feeble or rheumatic; dangerous for those of overful blood. Eventually it must go. Observation and experience both declare that it is not what it purports to be; that it is nothing more than a fallacy and a fad. True, we must keep it until we get something better, but may that "better" come quickly!

What is in the bubbler? — Why, all

manner of things. Germs? — Bless you, yes, millions of them. Microbes? — Sure. You don't believe it? Better investigate closer.

Take a nice, warm day and stand where you can get a view of the crowd. There comes a tall, bearded man. He is good to look at, but I have known more than one case of diphtheria or scarlet fever to lurk in a well-kept beard. True, the majority of men no longer wear beards or mustaches, but some still do. It hurts his dignity, but he does it, — stoops and drinks,— and such portion of the beard as he cannot control is bathed in the waters and brushes the sides of the basin. Next comes a woman. She is dainty and sweet, and she hesitates, but grasps her hat, bows her head, and assumes an uncomfortable, ungraceful pose, the dainty lips absorbing the cooling liquid, and, incidentally, kissing the basin as she rises. She is followed by two coal heavers. Down go the unwashed heads, grimy skin, tobacco-stained mustaches, and all. No dainty effort to keep them out of the water, if indeed it were possible. Dirt and grime and tobacco juice are everyday companions to them, and the very word germ is a stranger to their ears. Then there are tramps and drunkards, men with blotchy faces and disease oozing at every pore, men and women convalescent, men and women strong and healthy, those whose pale faces lighted by a burning spot in either cheek tell their own story, a frail little mother and her babe, and a merry group of children. How grim old Death and his foul parent, Disease, must laugh at the follies and foibles of men; for verily man, like an ostrich, hideth his head when he quencheth his thirst and when he eateth his food.



Hygiene of the Bedroom

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

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

These elementary conditions of healthful living are often neglected or ignored where real estate values soar to the heights attained in New York, and the problem of the architect is to house as many persons as possible within the narrow limits of a contracted building site. In city flats and tenements, as ordinarily planned, the meager bedrooms are reduced to the meanest dimensions for the benefit of parts of the house which are really less important. They are too often relegated to the least favorable locations on dark shafts or interior courts, and are frequently cramped and of inadequate size to permit more space for a pretentious display in the parlor and dining room, which are relatively but little used. In modest homes and small apartments it would usually be not inconvenient and far more sensible to use the diminutive bedrooms for dining- and drawing-room purposes and the better-ventilated and more ample parlor and dining room, opening directly upon the street, for sleeping chambers. Frequently the city physician's first duty is to remove his patient from a dark bedroom to the lightest and most commodious room available. Were such rooms occupied more generally by the family when in health, the physician's presence would be less often required.

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

The walls of the bedroom are preferably painted with a hard enamel [1] paint which can be wiped down with a damp cloth. If papered, the wall paper should be smooth finished in quiet tints and inconspicuous patterns. The vivid greens, reds, and blues sometimes seen in the

[1] Hard, but not enamel. A flat paint which will not cause a glare, but which can be washed, is better.— Ed.

tenements are often loaded with dangerous pigments, which may possibly be a cause of arsenical poisoning. Large patterns and loud, inharmonious colors are also irritating to a sensitive, nervous person, and are not conducive to the inviting restfulness which should be characteristic of a room dedicated to repose.

A multiplicity of ornaments, bric-a-brac, embroidered scarfs, cushions, and table covers should be avoided. They collect dust and microbes, and serve no useful nor artistic purpose; good hygiene and good taste alike frown upon cozy corners, plush-covered furniture, and tapestried bed hangings. A few simple prints in narrow frames should be the only decorations for bedroom walls, and curtains for the windows are best made of muslin or other wash material.

When practicable, it is desirable for every person to have his own bedroom. If it is occupied by two, each should at least have his own single bed. Metal beds, of brass or iron, are to be preferred. Folding beds, upholstered couches, or other space-saving contrivances are abominations from the hygienic standpoint. Hair mattresses which can be renovated and cleaned are best. In winter greater warmth may be obtained by interposing a heavy army blanket between the mattress and springs, or a second mattress is even better. Down coverlets or woolen blankets are lighter and warmer than cotton-filled bed coverings. In our climate linen sheets are cooler and more comfortable than cotton in summer. The mattress and bedding should be well aired every morning before the bed is made up. Closets opening off from bedrooms should not be made receptacles for old shoes, soiled clothing, and household rubbish.

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

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

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

KEEPING THE CELLAR RIGHT

L. A. HANSEN

THE cellar is one place about the house that, as a rule, does not have the attention it should have both for the good of the cellar and for the welfare of the house and household in general. Being a convenient place for stowing away things that are not wanted for some time, it is an easy matter for it to become so cluttered up that frequent attention to it is not encouraged. Not being on the program of daily or weekly housework, it does not come in for its regular share of cleaning and setting in order. If it gets a thorough cleaning in the spring and another in the fall, or even once a year, it may be counted as faring well in the mind of many a housekeeper who may be so careful about the rest of the house that her neighbors consider her a model for cleanliness.

Day after day, month in and month out, the whole family is living over that cellar. Baby is playing on the floor just an inch or two above it. The air supply of the whole house is affected by the atmosphere of the cellar, about half of the air for the first floor and a third of the air for the second floor being drawn from it. The condition of the air the family is breathing, whether dry and pure or damp and laden with must and mold, depends much on what is down there in that big air space under the whole house. Let us look into it.

In the first place, see that there are no sources of contamination outside or in. Cesspools, decaying vegetable or animal matter, or rubbish heaps near the house will pollute the soil, draining toward the cellar. The lower it is underground, the greater will be the radius drained by it. While it goes without saying that the cellar should be well protected inside by brick or cement, or both, in walls and floor, yet it is almost impossible to render it absolutely proof against the entrance of impurities pressing against it from all sides. Some good waterproofing paint preparations are available that are a help in making a dry cellar. Everything should be done to make the inside moisture proof, but the outside should also be looked after. This is important anyway, on account of the rest of the building and the surroundings in general.

Be sure that no vent or break in sewer pipes allows the entrance of foul air. The installation and maintenance of sanitary plumbing is one of the essentials of healthful housing.

Provide for the free circulation of air in the cellar. Windows should be so placed that a current of air may pass through the cellar. It is best to hinge them so they will swing up. Screen the windows, and keep some of them open as much of the time as possible. On hot summer days, moisture will gather on the walls of the cool cellar if the windows are open; therefore they should be closed during the day, but opened at night. Care must also be taken to guard against freezing of water pipes or contents of the cellar in very cold weather.

See that the ground near the windows is kept clean. It would be well to bear this in mind when making flower beds in which manure is used, where it might be a source of impure air for some time.

Flowers or shrubbery too near the cellar windows hinder air circulation.

Arrange for the care of the cellar contents so as to permit ready access to all parts of the floor space. Racks suspended from the ceiling will take care of many things usually piled in corners or elsewhere. Shelves against the walls, beginning several inches from the floor, will be found convenient for holding small articles. Nails driven in the ceiling joists are handy for hanging many things on.

A few bins for holding fruits and vegetables should be provided, having slat bottoms that will permit air to pass through the contents. These should be so made that sorting out decaying portions is convenient. Shelves or a cupboard with a screen door should be placed convenient to the steps and near the window for holding food materials that should be readily accessible.

It would be well to have raised platforms a few inches high for boxes, trunks, and the like. Cool air will settle to the floor; and, unless allowed circulation, it will become impure. The more things resting immediately on the cellar floor, the more conducive will it be to the gathering of mold. With plenty of racks and shelves, it will not only be easier to keep the cellar clean and orderly, but it will be more convenient to get at the things when they are wanted.

It may be in order to suggest that it is unwise to keep in any part of the house stuff that is of no use to you and will not likely be so for some time to come, if ever. The room required for it, and the trouble of caring for it, should be taken into account. Better give away such things to those who can make use of them, or make other suitable disposition of the same, than have them either in the way or bothering you to keep them out of the way.

Besides the frequent inspection and attention given the cellar, it should have a general overhauling with the rest of the house at the semiannual house-cleaning time. A coat of whitewash at this time is desirable, helping to keep the walls free from dirt and to purify and deodorize the place.

Coal bins should be made with partition walls extending from floor to ceiling to prevent coal dust filling the rest of the cellar.

The cellar may serve for much more than simply a foundation for the building and a sort of catchall for junk. Kept in good condition, it may make a suitable place for a workshop for the man of the house or for the boys. It is the proper place for the laundry. The storage of food supplies belongs here also. Taking it altogether, with the people living over the cellar and those who might be working in it at times, and with the keeping of food materials here, it becomes somewhat important that careful attention be given to making it right and keeping it so.

SANITATION ON THE FARM

EVERY city has its housing problems, its regions congested with rickety, unsanitary, disease-breeding houses; but it is a question whether the country as a whole does not outclass the city as a whole in its unsanitary conditions.

We have been brought up to look upon the country and "nature" as offering the antidote for the evils of city life. Now it would appear that in the city the evils have been fairly well met by adequate sewerage, good drainage, fairly pure water, more or less adequate inspection, and all that goes with an efficient health department; but in the country almost nothing has been done in this regard, and it is in the country that a number of our gravest diseases are incubated and kept going — such diseases as malaria, typhoid fever, and pellagra, to mention no others.

Dr. J. A. Nydigger, U. S. P. H. S., of Baltimore, discussing, in the *Medical Record* of January 24, the "Hygiene of the Farmhouse and Farm," says: —

"If we take the average farmhouse of people in moderate circumstances, located some distance from a city, we are liable, in the vast majority of instances at least, to find that running water is not supplied in the building, that the all-cleansing and health-giving bathtub is wanting, that the water-closet is not placed in the house, but has a highly dangerous substitute in the way of a privy or outhouse, badly constructed, and frequently in still worse state of repair, unscreened and unprotected."

Unprotected outhouse — flies — typhoid fever is now a well-established sequence. Not only is the outhouse unprotected, but frequently the house is unscreened, and the flies from the outhouse have free access to pantry, kitchen, and dining room.

Moreover, the drinking water may be from a contaminated stream or from a shallow well into which seeps the pollution of the barnyard, the poultry, the cesspool, and the privy. Even well-to-do farmers who may own improved machinery and even a motor car, are sometimes backward as regards the sanitation of the house.

Perhaps this may be some explanation for the statement by Irvin S. Cobb, which recently appeared in the *Saturday Evening Post:* —

"There was always one thing about old gentlemen I could never understand. Country life is supposed to be a healthier life than city life. Take two boys — a country boy and a city boy — at the same age. Always in fiction and quite often in fact the country boy is a sturdy, broad-beamed, normal youngster, bronzed, barelegged, and full-breasted. On the contrary, his city cousin — unless the popular conception errs — is scrawny and thin and pale-bleached, with weak eyes and pipestem legs.

"With the license that belongs to all historical writers we now skip lightly over forty or fifty intervening years and take a look at the same contrasting pair when they are grandsires. Exhibit A is frequently noted to be a caved-in and wheezy figure, kinked into a human pretzel by rheumatism, and feeble on his pins. Exhibit B, meaning by that the city-raised specimen, is very often an erect and light-footed old gentleman carrying his age with an air, stepping out briskly, sound in wind and limb.

"One has lived close to nature. Throughout his life he has been eating simple food, sleeping eight hours a night, going to bed early and getting up early, never indulging in excesses — and he is a wreck. The other all these years has been taking all manner of chances with himself. He has lived under artificial and enervating conditions, whetting his mind on constant excitement, burning up his energies in feverish pursuits of business and pleasure, eating and drinking whatever was distinctly not good for him, going home when he did not have anywhere else to go. He never went to bed with the chickens, because he much preferred to stay up for the larks.

"By all the rules he should have died seven or eight times before he reached middle age. And here he is at sixty-five or seventy or seventy-five, pink and pert, and all primped up. I wish somebody would explain to me why this is so. It is not reasonable, and it is not natural, and it is not normal; but it keeps right on occurring."

But it is easier to point out wrongs than to show a better way. Briefly, the better way may be summarized:—

The farm-house should be on high ground, so arranged as to give the maximum amount of sunlight. A situation in a grove of trees is not at all ideal. Preferably it should be over a cemented and ventilated cellar.

The house should be provided with running water, preferably hot and cold, with bath, sink, water-closet, etc., and if no other means is at hand, sewage should empty into a septic tank system. The water should be from a source that is above suspicion, perhaps a deep driven well. It should certainly not be from a shallow well nor from a stream. Drinking water from a suspicious source should be boiled.

When privies must be installed, they should be made as sanitary as possible. The one recommended in the Special Bulletin, No. 13, North Carolina State Board of Health, Raleigh, N. C., is a most excellent type, though the object is obtained if the building is effectually screened from flies, guarded from the inroads of animals and poultry, and if the drainage from it does not reach the water supply.

FIG. 4.—The insanitary privy with the well not far away.

Undoubtedly the State departments of health could not do more effective work than to employ a number of farm sanitation inspectors or engineers, who might aid farmers in plans for the proper sanitation of their buildings and grounds.

To the farmer, sanitary improvements will seem costly, as does the movement for good roads, and as did the effort to make the Canal Zone habitable. But such expenditures are not losses; they are investments. An investment of a few hundred dollars — even if it must be borrowed — will yield to the farmer a splendid return in freedom from disease, in increased efficiency, and in increased property valuation; and the State should finance such work, if necessary.

A large number of other factors I have not attempted to touch, such as mosquito-breeding marshes which should be drained, adjacent stables with manure piles and countless flies, filthy cow barns and yards, and carelessness in the handling of milk.

Another prominent factor in retarded health on the farm is the abominable cooking, the too-free use of the frying pan, the use of greasy, sodden soda biscuit, the excessive use of such beverages as tea and coffee, and the like.

The country should be the ideal dwelling place; and what with postal delivery, telephones, motor cars, neighborhood centers, the country ought to hold its brightest young people instead of sending them off to the city.

GARDEN CITIES IN ENGLAND

[The success of the garden cities and garden suburbs in England has been so marked that we Americans should know more about them. The following, by W. Templeton Johnson, taken from *New Boston*, gives a fair introduction to the subject.—Ed.]

THE damp climate of Great Britain, which permits luxuriant plant life even in deep shade, and the influence exerted by hundreds of years of constant contact with the gardens of the great landed estates, have led to the evolution of the garden city in England.

The garden city, as we know it today, was instituted about thirty years ago, as a housing adjunct for a great industrial enterprise. In 1887 the firm of Lever Brothers, soap manufacturers, bought some land between Birkenhead and Liverpool on which to build homes for their employees. The first houses constructed were too costly to be profitable, and of late years the expense of maintaining roads and parks has risen, so that on an investment of $1,500,000 there is no profit after the payment of fixed charges; but Mr. Lever believes in carrying on the enterprise, because employees living in a community which promotes good health are more intelligent and efficient.

Fifty years ago a young man walked the streets of Birmingham, England, on Saturday afternoons, looking at the squalid workingmen's houses and the dirty, unkempt yards. "Is it any wonder," he said to himself, "that with such demoralizing living conditions the workmen, instead of coming home, spend their wages drinking at the saloons?" The man was George Cadbury, now one of the proprietors of a great manufacturing company; and the town of Bournville, four miles from Birmingham, is the result of his efforts to secure good living conditions for any one who might desire an attractive home in a district so designed that there is plenty of room and fresh air for all the inhabitants. Only forty per cent of the houses at Bournville are rented by employees of the Cadbury Company, Mr. Cadbury having wisely decided that there should be no obligation on the part of his employees to live in Bournville, and also that the colony might be open to any one.

The houses in Bournville are attrac-

tive brick structures, with gardens in front and behind. The Village Trust offers prizes for the best-kept garden and for the finest fruit and vegetables. With this incentive, the gardens are always neatly cultivated, and it has been estimated that the produce raised reduces the rent of every family in Bournville nearly half a dollar a week. There are tennis and football fields, a swimming pool, and a gymnasium. The death rate in Bournville is five per thousand, while in Birmingham, only four miles away, it is fifteen.

The Bournville boys of twelve are three inches bigger around the chest than their city neighbors in Birmingham. In 1900 the enterprise was made into a perpetual trust. The undertaking is on a strictly business basis, the net profits of about four per cent being devoted to the building of more houses.

A dreamer looked into the future, and curious as it may seem, his dream came true; for Ebenezer Howard, whose "Garden Cities of Tomorrow" opened the eyes of the public to the possibilities of town development, has lived to see realized most of his essential ideas in the model city of Letchworth, about thirty-five miles north of London.

In 1902 a tract of 3,800 acres at $200 an acre, was bought by the First Garden City, Limited, 1,200 acres being designed to house a population of about 30,000 people. The remaining 2,600 acres are devoted to an agricultural belt, which encircles the town and which shall remain inviolate. A limit of twelve houses to the acre has been established, and a conscious effort has been made to provide housing facilities for all sorts and conditions of men, the rents ranging from five and six dollars a month up to forty or fifty.

A part of the property lying close to the railroad, but screened by a hill and a belt of trees, has been set aside for factories. Already more than twenty different enterprises have left London, and found it to their financial benefit to operate on cheap land where the homes of the operatives are within walking distance of their work.

The directors have wisely held the most attractive portion of the land for a future civic center. The population of Letchworth is now 7,000, and the idea is to use small, temporary municipal buildings until the city approaches a population of 30,000.

The most attractive London suburb,

Hampstead Garden, only twenty minutes from the heart of London, was developed by the Hampstead Garden Suburb Trust, which, for $2,500 an acre, bought from Eton College 240 acres of rolling country bordering Hampstead Heath. The building requirements follow a plan designed by Barry Parker and Raymond Unwin. The land is not sold, but lots are rented for nine hundred and ninety-nine years. Three very successful co-partnership societies have built homes, all of which must be approved by the architects, so that the harmony of treatment may not be disturbed. Only eight houses are permitted to the acre, so that there are ample spaces for gardens and open spaces. The informal treatment of the streets and the occasional placing of buildings in groups of two and three, have produced very charming street pictures.

There is land within the limits of most of our great American cities which is no more expensive than that at Hampstead, and which could be developed on similar lines. Are we going to stand still and watch twenty-five, fifty, seventy-five, or more houses to the acre, without so much as breathing space, sweep solidly over the land surrounding our cities? When will people realize, as they have in England, that beauty is just as cheap as ugliness? Think of the $1.50-a-week houses at Letchworth, and contrast them with our own product. There is a saying of President Lincoln's, "For people that want that sort of thing that's just about the sort of thing that they want." I hope we are going to want something better than we have. There is a very good rule that if the people want a thing hard enough, they generally get it. The introduction of the garden city, which is so successful in England, is perfectly possible in the United States, and its establishment will mark a new era in American building.

ASMUNS PLACE, HAMPSTEAD

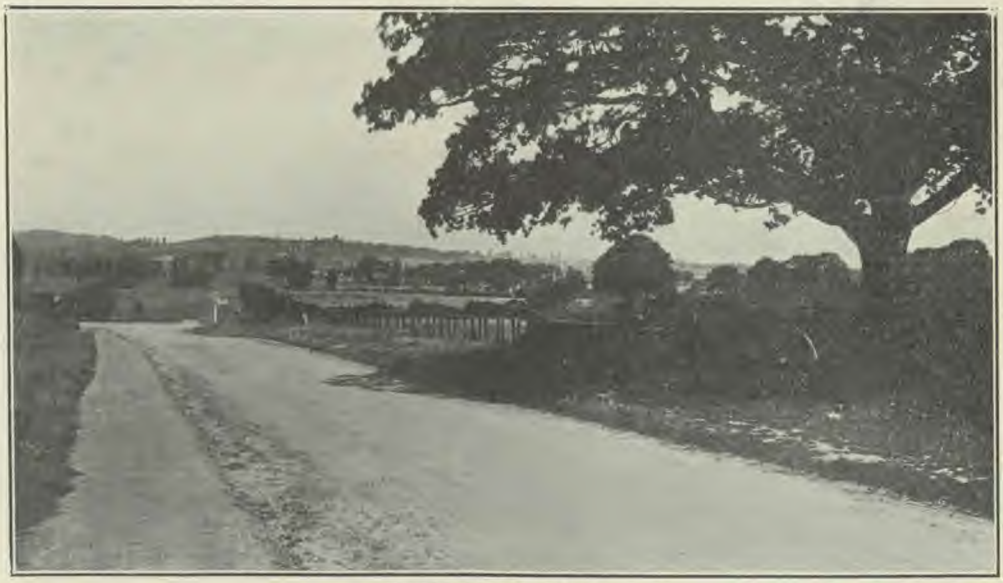
THE EALING GARDEN SUBURB

G. H. HEALD, M.D.

THOUGH I had, through the courtesy of Mr. Litchfield, spent a pleasant afternoon inspecting the garden suburb at Hampstead, I could not withstand the temptation to visit the original garden suburb at Ealing. In the western suburbs of London, on an estate quite small as compared with that at Hampstead, was started the first experiment in the way of a cooperative garden suburb. Half an hour's ride in the tube landed me at Ealing Broadway, where I learned that the Ealing Tenants Estate was about twenty minutes' walk to the north. It did not take long to find the estate, nor did it take much skill to distinguish between the homes of the garden tenants and their neighbors, especially when the back yards were inspected.

At the Ealing estate great care has been bestowed upon the gardens, front and back. One very pleasant feature is the walks, scarcely three feet wide, just enough to admit of comfortable walking, which pass between certain of the houses to the interior of the block and afford a back way to all the houses.

I went up and down a number of these walks, observing the condition of the gardens. The fences were either of light oak pickets, or, in the older portions, hedges, and quite frequently there was a



VIEW FROM EALING

pretty acacia tree for shade. There was a profusion of fruits, vegetables, and flowers everywhere, and an indication of thrift and contentment. Evidently the tenants are of the class above the unskilled laboring class, many of them probably being tradesmen.

Copartnership in housing had its birth in Ealing in 1901. Some five years before this the Cadburys had started the Bournville village, but Ealing was the first garden suburb started on a strictly copartnership basis, and from this small beginning the copartnership housing movement has grown until now (1911) there are a score of societies with property having a probable valuation of more than $5,000,000.

The tenant, while not actually owning the house in which he lives, holds it, provided he is a "decent" neighbor, as long as he desires, and in such a way as to give him a sense of ownership and a feeling of pride in its upkeep. For neighbors he has persons who are equally anxious to maintain the appearance of the neighborhood.

It is not difficult to understand that with a neighborhood of tenants who are practically owners, and who expect to improve and not move, conditions will be much better than in neighborhoods on the rent basis, where one may remain for a comparatively short time, and where there is no inducement to make permanent improvements.

While there is a certain permanency in the Ealing tenancies, one is not necessarily bound there. If for any reason one desires to move to another location, which is not frequent, he can transfer his investment with little trouble and without material loss.

The impression given to an American, accustomed to see property held on a rent basis, each tenant expecting to move the first time he finds something more favorable, and each landlord ready to raise the rent on any pretext, especially if the tenant has improved the property, is extremely favorable. The rent system encourages slackness on the part of the tenant, who has no incentive to improve his property or even to keep it up.

In the cooperative system every tenant is a part owner of the whole, though not a complete owner of his own property; and he has an interest not only in seeing his own personal holding improved, but all the surrounding property, as well. He is "a part of the concern" in more senses than one.

THE AVENUE, WALPOLE PARK, EALING

A LATH SUMMERHOUSE

IN the East a greenhouse excludes the frost and insures an equable temperature, artificially produced, for the blooming growths. In California, under a semi tropical sun, a greenhouse becomes a lath house, and its purpose is not only to moderate the sun's rays, but to protect the sensitive growths from the breeze. A well-planted and well-cared-for lath house is a joy forever.

As to construction, just a matter of a few two by fours and a few bundles of lath. In fact, in the East one might regard it as a simply constructed chicken house — lumber, lath, nails, and labor.

A VIEW IN EALING

If the laths are spaced an inch apart, enough enlivening sunlight will be admitted to insure plants thriving, but not enough to harm them.

If built upon a roof, boxes, say ten to twelve inches wide, can be arranged. From the roof can hang rustic hanging baskets. So equipped, ferns, violets, begonias, creeping vines, in fact delicate plants needing moisture and a moderate amount of shade, can be grown luxuriantly.

The air, unlike an inclosed greenhouse, is never confined nor stuffy. On the outside of the house, say on the west side, to soften yet more the westerly trade winds,

another box can be placed to grow vines, passion flowers, honeysuckles, climbing roses, etc., which, covering the lath, will serve yet more as a protection.

Even in the East during the summer months, using easily replaceable plants, like the geraniums, quick-growing and resupplied in the spring, such a lath house would be an adjunct of value to the convalescent. In the Southwest there is no reason why such a retreat should not exist upon the roof or within the grounds of every hospital and sanitarium.

To place a convalescent within such an environment, where the hours of the day can be spent enjoyably and entertainingly, would help amazingly along the lines of quick recovery, and prevent many hours of baneful introspection. A patient recovers in proportion to the absence of introspection; and with a convalescent no medicine favors so well as interesting occupation, and just the watching of the growth of the plants alone, from day to day, would be interesting and entertaining. Of course, reading, writing, and conversation within such an environment are far more beneficial than within four walls.

I make this appeal to the managers of the sanitariums and hospitals of the land, and to the doctors, who, with commendable interest, pride themselves upon securing the rapid recovery of the patients, and above all, of the invalid. Unfortunately, or fortunately, I know whereof I speak, for I myself have passed through "and borne the heat and burden of the [surgical and convalescing] day," and as a shut-in my days are made enjoyable, pleasant, diverting, and intensely interesting from my invalid's chair in the corner of my lath house in Southern California.

Again I say I know whereof I speak, and if this article results in softening the heart and opening the purse of the manager of even a single sanitarium or hospital in the land, I shall not have written in vain. A great joy and comfort may be imparted in this manner at an infinitesimal outlay of expense.

OUTSIDE VIEW OF LATH HOUSE

HEALTHFUL COOKERY

MENUS FOR A WEEK IN APRIL

George E. Cornforth

ONE intending to build a house may secure a bungalow book, not that he expects to find there just what he wants, but in order to get ideas that will enable him to plan a building which, while it expresses his own personality, will meet the sanitary and other requirements of a home.

Most emphatically, the family menu should express the personality of the wife; and in proportion as she prides herself on her cooking, she will desire to give self-expression in her dishes and combinations. The menus and recipes of another may serve to give her ideas and inspiration, but in proportion as she is a true cook, there will be about each meal an individuality that is all her own.

The fat-supplying foods which always accompany a meal have not always been mentioned in the menus. It is understood that butter, olive oil, salad oil, or a dish of nuts, or more than one of these foods, is on the table at each meal.

Dishes for which recipes are given in this issue are marked in the menu with a superior [1].

Timbales of Rice and Olives

2 cups boiled rice
2 cups milk
¾ cup chopped ripe olives
2 tablespoons chopped celery or ¼ teaspoon celery salt
½ teaspoon sage or grated onion
½ teaspoon salt
3 eggs, well beaten

Mix the ingredients. Pour into oiled cups. Set into a pan of hot water and bake till firm. Remove from oven. Allow to stand a few moments. Remove from the cups and serve with

Tomato Sauce

2½ cups canned tomatoes
1 onion, sliced
¼ teaspoon thyme
1 tablespoon oil
1 tablespoon flour
½ teaspoon salt

Cook the tomatoes and onion together slowly for one-half hour, then thicken with the flour stirred smooth with a little cold water. Rub through a purée sieve fine enough to remove the tomato seeds. Add the oil, salt, and thyme. Reheat.

First Day

DINNER

Tomato Vermicelli Soup
Timbales of Rice and Olives [1]
Mashed Potato — Canned Peas
Whole-wheat Bread — Farina Banana Cream [1]

BREAKFAST

(Browned Rice) — Cream or Milk
Omelet
Baked Potatoes — [Graham Puffs]
Sliced Bananas

SUPPER

Corn Meal Gruel with Croutons [1]
Prune Toast with Whipped Cream [1]
White Bread — Canned Cherries

Second Day

BREAKFAST

(Cracked Wheat) — Cream or Milk
Jellied Eggs — Browned Potatoes
[Currant Puffs]
Oranges — Dried Apple Sauce

SUPPER

Hulled Corn and Molasses
Cottage Cheese — White Bread
Stewed Dried Apricots

DINNER

Cream Rice Soup — Stewed Pea Beans
Savory Potatoes — Stewed Tomatoes
Whole-wheat Bread — Caramel Custard

Farina Banana Cream

1 pint milk
¼ cup sugar
1½ round tablespoons farina
A few grains salt

Heat the milk with the sugar in a double boiler. Stir the farina and the salt into the hot milk, and continue to stir till the farina does not settle. Allow the mixture to cook in the double boiler one hour. Then spread a thin layer of this mixture over the bottom of the dish in which the pudding is to be served. Slice bananas over the farina cream. Cover the bananas with a thin layer of the cream, then slice on more bananas and cover with the cream. Serve cold, with or without cream as an accompaniment. Or the pudding may be served with canned raspberries as a sauce.

Corn Meal Gruel

1 pint water
½ cup corn meal
1 pint or more hot milk
1 teaspoonful salt

Cook the corn meal, in the water with the salt, in a double boiler for one hour, as in making corn meal mush; then with hot milk thin to the consistency of gruel.

Prune Toast

Heat prune marmalade in a double boiler. Put a spoonful of the hot marmalade on a slice of zwieback which has been dipped in hot cream, and put a spoonful of whipped cream on top of the marmalade.

Caramel Custard

1 pint milk
¼ cup brown sugar
1 tablespoon white sugar
2 eggs
Grated rind of 1 orange
A few grains salt

Put the sugar to cook in one tablespoon water and allow it to boil, watching it carefully, till it turns darker and is almost ready to scorch, then turn into it one tablespoon of hot water. This will harden it a little. Allow it to simmer till it dissolves. Heat the milk, but not to boiling. Be careful to grate only the yellow part of the rind of the orange, not grating deep enough to get any of the white of the rind. Beat the eggs. Add to them the caramel, the sugar, the grated orange rind, the salt, and the hot milk. Mix well. Pour into custard cups. Set the cups into a pan of hot water, and bake till the custard is set.

The flavor of the caramel and orange together is very nice.

Brown Betty

1 quart chopped apples
1 pint raisins
½ cup sugar
1 tablespoon lemon juice
¼ teaspoon salt
1 cup zwieback crumbs

Simmer the raisins for fifteen minutes in sufficient water to cover them. Drain off the juice and save it. Put half the apples in the bottom of a pudding dish; cover the apples with one half the raisins. Sprinkle over the raisins one half the sugar and one half the crumbs. Spread over this the rest of the apples; put the rest of the raisins over the top of the apples. Sprinkle on the rest of the sugar and the rest of the crumbs. Add the salt and the lemon juice to the water that was drained from the raisins. Pour this over the top of the pudding. Set the pudding into a pan of water. Cover the pudding and bake one hour or longer. Remove from the pan of water and bake without the cover long enough to brown the top of the pudding lightly. Serve with coconut sauce.

Angel Cakelets

Bake angel cake in the form of cup cakes. Spread icing on the cakes and sprinkle with shredded coconut.

Third Day

BREAKFAST

(Toasted Puffed Rice) Cream or Milk
Macaroni with Egg Sauce
Sliced Potatoes Baked in Nut Gravy
[Oatmeal Rolls] Sliced Pineapple

SUPPER

Ripe Olive Sandwiches Fig and Orange Salad
Angel Cakelets [1]

DINNER

Cream Corn Soup
Baked Scotch Peas Creamed Potatoes
Canned Spinach with Lemon
Swedish Wheat Bread
Brown Betty with Coconut Sauce [1]

Fourth Day

BREAKFAST

(Rolled Oats) Cream or Milk
Peas Patties with Tomato Sauce
Creamed Potatoes [Hoe Cake with Honey]
Stewed Prunes Bananas

SUPPER

Nut Gravy Toast
Graham Bread Canned Raspberries
Maple Layer Cake

DINNER

Tomato Cream Soup
Ribbon Beans with Mint Sauce
Mashed Potatoes Boiled Cabbage with Lemon
Swedish Wheat Bread Creamy Rice Pudding [1]

Icing

1 cup sugar
2 egg whites

Put the sugar to cook in one-fourth cup of water. Boil to 144° F. by the thermometer, or till the sirup spins a heavy thread. Beat the egg whites very stiff, then beat the sirup in a fine stream into the beaten whites. Beat till cool enough and stiff enough to spread on the cake without running off.

One egg white is generally used for one cup of sugar, but by using two egg whites and boiling the sirup a little higher an icing is made which will not become too hard to spread before it is all spread on the cake. It makes a smoother and nicer frosting.

The peas patties for breakfast the fourth day are made of the baked Scotch peas left the day before.

Creamy Rice Pudding

1 quart rich milk
Scant ¼ cup rice
¼ cup sugar
Grated yellow rind of ½ lemon
A pinch of salt

Wash the rice thoroughly by putting it into a dish, pouring hot water over it, and whipping it with a batter whip, then pouring off the water, repeating the process till the water remains clear. Be careful to grate off only the yellow part of the lemon rind. Put all the ingredients into a pudding dish. Cover the dish. Set it into the oven and bake the pudding very slowly till the rice is tender. The pudding should be stirred occasionally during the cooking. When the pudding is nearly done, the cover may be removed to allow the top of the pudding to brown.

Success in making this pudding depends entirely on the baking of it. It should be baked slowly and *not too long,* but the rice should be thoroughly tender. If baked too long, the pudding will be too dry. It is best served the day after it is made, and should be of a rich, creamy consistency when cold, but some might enjoy it served hot. One-eighth package of raisins may be added to the pudding, if desired.

Maple Frosting for Layer Cake

1¾ cups maple sirup
¼ cup sugar (granulated)
1 egg white

Boil the sugar and sirup together to 250° F. by the thermometer, or till it spins a heavy thread. Then pour it in a fine stream on to the beaten white of the egg, beating the white as the sirup is poured in. Set the bowl which contains the mixture over a dish of hot water and beat the mixture thoroughly till the egg stiffens somewhat, then spread it on the cake. One-half cup of coarse chopped nut meats may be mixed with the frosting, if desired. Also a little vanilla flavoring may be added.

The potato cakes for the fifth breakfast are made from the mashed potatoes left the day before.

Shredded Eggs on Toast

Separate the whites from the yolks of two hard-cooked eggs. Rub the whites and the yolks separately through a colander. Put the whites into one pint of cream sauce. Dip slices of zwieback into hot water. Cover with the cream sauce, and sprinkle the shredded yolks over the sauce.

Grape Sago

3½ cups grape juice
½ cup brown sago
A few grains salt

Fifth Day

DINNER

Cream of Almond Soup
Succotash **Steamed Potatoes**
Banana Salad **Graham Bread**
Grape Sago with Whipped Cream [1]

BREAKFAST
(Cream of Wheat) with Maple Sirup
Shredded Eggs on Toast
Potato Cakes [1] **[Peach Toast]**
[Steamed Dates]

SUPPER
Molded Cream of Wheat with Raspberry Sauce
Stuffed Prunes **Nut Buns**
Dried Apple Sauce

Sixth Day

BREAKFAST
(Rolled Wheat) **Cream or Milk**
Canned Shelled Beans
Baked Potatoes **[Pop Overs]**
Baked Bananas

SUPPER
Hashed Potatoes **Graham Bread**
Stewed Tomatoes
Sea Moss Blancmange with Cream or Milk

DINNER

Vegetable Soup
Broiled Nut Cheese **Chipped Potatoes**
Dandelion Greens with Lemon
Graham Bread **Molasses Bread Pudding** [1]

Allow the sago to soak in the grape juice about one-half hour, then add the salt to it, and put all into a double boiler and cook, stirring occasionally, till the sago is transparent, which will require one-half hour or longer. Turn into a mold or into individual molds, wet with cold water. When cold, turn out of the molds and serve with whipped cream or with plain cream.

Other kinds of fruit juice, such as strawberry or raspberry, may be used.

The molded cream of wheat for the fifth supper is the cream of wheat left from breakfast, turned into a mold. At supper time it is turned out of the mold, and served cold with a cold sauce made by rubbing canned raspberries through a strainer fine enough to remove the seeds, heating the pulp to boiling, and thickening it slightly with cornstarch stirred with cold water.

Molasses Bread Pudding

2 thick slices bread. Pour over them
1 cup hot cream or rich milk. Add
1 egg, beaten
¼ cup molasses
¼ cup sugar
1 teaspoon brown flour
1 quart milk
¼ teaspoon salt

Mix well. Bake in a pan set into a pan of hot water. This pudding will be soft, and will whey and seem like baked Indian pudding.

Farina Cream Pie (2 Small Pies)

1 quart milk
½ cup sugar
⅓ cup farina
A pinch of salt
3 eggs
1 tablespoon oil

Heat the milk and sugar in a double boiler. Add the farina. Stir till the farina does not settle. Cook one hour. Beat the yolks of the eggs, add a little of the hot mixture to them, then stir them into the hot mixture; add the remaining ingredients. Pour into crusts with built-up edges, and bake till set. Beat the egg whites stiff. Fold into them two tablespoons of sugar, and spread over the pie. Put into the oven to brown lightly.

Tomato Sandwich Filling

Scramble an egg in one-half cup or more of strained tomato, not cooking it too hard. Add one-half tablespoon or a little more of vegetable oil, salt to taste, and cracker dust sufficient to make of the proper consistency for sandwich filling.

We have inclosed some of the articles on the breakfast menus in parenthesis, others in brackets, so that any who desire to simplify the menus can do so by omitting either the article in parenthesis or the one in brackets. The soups might be omitted from the dinners. Wherever whipped cream is called for, plain cream might be used, or some kind of pudding sauce.

Sabbath

DINNER

Cream Tomato Soup
Lentil Cutlets with Nut Crumbs
Cream Sauce Potato Salad Cream Sticks
Fruit Bread Farina Cream Pie [1]

BREAKFAST

Cream Toast Cottage Cheese
Raised Doughnuts
(Steamed Figs) [Grapefruit]

SUPPER

Tomato Sandwiches [1]
Ripe Olives
Fruit Bread Canned Peaches

EDITORIAL

WHY VENTILATE?

VENTILATION is "in the air," to use a colloquial expression that may involve a Hibernicism. The sleeping porch and the open window have come to stay. Not only for the tuberculous, but for the comparatively well, the outdoor life is generally recognized as decidedly beneficial. The crusade against tuberculosis has incidentally taught us, as perhaps we should not have learned it otherwise, the value of outdoor air, and it is having a disastrous effect on the income of the druggists, and a very beneficial influence on the public health.

The headaches, drowsiness, and other unpleasant and harmful effects of close, stuffy rooms, especially where large numbers of people are assembled, are too well known to require consideration. In general it is accepted that fresh air is healthful and that rebreathed air is harmful. It is a common experience, in fact, that the functions of the body — digestion, assimilation, respiration, circulation, elimination, and so forth — are improved by the open-air life, so that every home that adds a sleeping porch becomes, as it were, a miniature sanitarium.

Physiologists years ago told us how much carbon dioxide the air might contain without being unsafe. In ordinary country air there is about 79 per cent of nitrogen (an inert gas), 21 per cent of oxygen (a very active gas, which, combining with certain elements in the body or in fuel, generates heat and energy), and .03 per cent (3 parts in 10,000) of carbon dioxide, besides minute quantities of ammonia gas, helium, argon, neon, etc., which need not concern us. The oxygen, uniting with certain elements in the animal body and in fuel, forms water and carbon dioxide, so that these two substances pass off in the smoke from a fire, and in the expired breath. For this reason, buildings occupied by living beings always contain a larger proportion of carbon dioxide and a smaller proportion of oxygen than the country air. On the other hand, plants are constantly abstracting this carbon dioxide from the air and building it up into plant tissue, setting part of the oxygen free in the process.

It has long been supposed that as long as the carbon dioxide content of the air does not rise above 6 to 10 per 10,000 (that is two or three times the normal amount), the air is fairly pure, and that air with a greater carbon dioxide content is unfit for breathing purposes. On this supposition ventilating systems have usually been constructed so as (theoretically) to dilute the inside air with sufficient outside air to keep the carbon dioxide content below 6 per 10,000.

But since Leonard Hill, in 1910, made the astounding statement, based on his careful observations,[1] that the relative increase of carbon dioxide and decrease of oxygen in the air, as ordinarily found in buildings, is not an important cause of ill health, the entire subjects of respiratory physiology and of ventilation have been opened for fresh study and discussion.

[1] Others have been over the ground before him, but he seems to have been the first one to have attracted general attention in this country.

Hill shut a number of men in an air-tight chamber until the thermometer stood, dry bulb 87, wet bulb 83, the carbon dioxide content 5.26 per cent (or *526 per 10,000*, from 50 to 100 times as much as is considered safe), the oxygen content 15.1 per cent. There was great discomfort, profuse sweating, flushed skin, etc., but "on putting on the electric fans and whirling the air in the chamber, the relief was immediate and very great; and this in spite of the temperature continuing to rise. On putting off the fans the discomfort returned. The occupants cried out for the fans." Now it is plain that the fans did not change the proportion of carbon dioxide and oxygen, and that the relief was due entirely to the motion of the air.

In another experiment described by Hill, two persons were shut in the chamber, one to observe. The electric heater raised the temperature of the chamber to about 85° wet bulb, the subject meantime inhaling through an apparatus which absorbed the carbon dioxide, so that he was breathing what was practically equivalent in composition to outside air. Starting the fans gave complete relief to the discomfort caused by the high temperature, and lowered the pulse. The subject now ceased to breathe through the special apparatus, and, unknown to him, two per cent of carbon dioxide (200 parts per 10,000) was allowed to escape into the chamber. The sudden rise in the proportion of carbon dioxide had no apparent effect upon the subject. There was no increase in respiration. Putting on or off of the fans relieved or increased the discomfort as before.

As a result of these experiments and similar ones performed by others, some have asserted that ventilation is not a problem of chemistry but of physics; that all that is necessary is to have the air in motion, and have it at the right temperature and humidity. If this were so, we might save a large proportion of our coal bills by conducting the air from our rooms back to the furnace, and reheating it. It would be much cheaper than heating the outside air.

But these experiments did not appeal to Prof. W. G. Anderson, of the Yale University gymnasium, who, in January, 1912, conducted a series of experiments as a check on the experiments of Hill (*Medical Times*, January, 1914). In his experiments, it would seem that the subjects knew that the gas was being turned on. At least, there is no statement to the effect that this knowledge was kept from them. Knowing, as we do, the inevitable psychological effect of being fastened in an air-tight box, in a gas supposed to be injurious to the health, we should not be surprised if the results were different from those of Hill; moreover, the room was saturated with 8.10 per cent of carbon dioxide (810 parts per 10,000, *270 times the normal amount* and more than one hundred times as much as would obtain under any ordinary living conditions even with bad ventilation). According to Anderson, the fans relieved the closeness and warmth, but did not relieve the dyspnea, or air hunger.

Anderson concludes from this and other similar experiments "that the carbon dioxide factor is without doubt an important one, *if the gas is present in large amounts*. It is an undesirable element, insidious in its effects, if habitually and continually breathed in small amounts above the normal percentage." "Our tests have shown that the agitated air does relieve, for a short time only, the unpleasant symptoms, but we do not believe that the danger is obviated by the use of fans if the toxic conditions are permitted to remain."

From what we know of the effect of outdoor living as a tonic and restorer of health, we believe that Dr. Anderson's conclusions are sound, but we do not

see how he adduces them from the experimental work he has described. One would not attempt to show that table salt is injurious by administering 279 times the ordinary amount or 100 times the maximum amount at one time, nor should we use such a proof in regard to anything else. Suppose, for instance, it was necessary to administer 270 times the amount of alcohol ordinarily used or 100 times the maximum amount, in order to show marked physiological effects! In crowded auditoriums, the carbon dioxide content may rise from 32 to as high as 72 parts per 10,000; but there is a long distance between that and 810 parts per 10,000. So to the writer it would seem that Professor Anderson's demonstration leaves much to be desired. It is true that he got some bad results with amounts less than 810 per 10,000, but so far as I have read, never with amounts such as are found under actual conditions of home, or workshop, or assembly room, even under the worst conditions of ventilation.

This, it seems to me, does not by any means prove that the composition of the air is of no significance. Rather, there are unknown factors that we have not yet considered fully, and there is an opportunity for some careful investigator or investigators, by means more precise and delicate than any yet devised, to reach a better solution to this difficult problem; for certainly there is some virtue in pure outside air not to be obtained by means of fans and apparatus for giving the air the right proportion of water.

HOUSING AND HEALTH

DIET, narcotic habits, and exercise have bulked so large in the discussion of the problems of personal hygiene that one is apt to underestimate the influence of housing conditions on health and longevity. Ordinarily, bad housing is the accompaniment of bad industrial conditions, impoverished dietary, and other unfavorable influences, so that it is not easy to determine to what extent the bad housing is directly responsible for the lessened health and efficiency. But in Washington a sociological experiment was performed where the principal change seems to have been the furnishing of better housing conditions. From the account of this experiment, which is given in Bulletin No. 75, Bureau of Labor, issued March, 1908, the following extract is given: —

> "It has long been known that rickets, scrofula, and chronic forms of tuberculosis are far more prevalent in dark, damp, and insanitary houses. The children are anemic and puny, as plants reared without the stimulating effects of sunlight. Add to this the fact that dampness abstracts an undue amount of animal heat, lowers the powers of resistance, and favors the development of catarrhal conditions, which render the system more vulnerable to tuberculosis, and we have a reasonable explanation why these diseases prevail especially in basements or houses below grade and otherwise unfit for human habitation. The death rate is often double or treble that of other localities; and while there are doubtless other factors which determine the frightful mortality, the most potent are insufficient sunlight and defective ventilation. Diphtheria, cerebrospinal meningitis, acute and chronic rheumatism, and bronchial affections are also more frequent in insanitary dwellings.
>
> "The history of improved dwellings reveals everywhere a lessened death rate, and the experience of the Washington Sanitary Improvement Company is equally gratifying. During the year ending Dec. 31, 1906, the apartments were occupied by 778 adults and 380 children, total, 1,158;

the births during the year numbered 39, and there were only 16 deaths, 10 adults and 6 infants; a death rate of only 13.8 per thousand, which, with all due allowance for the average age of the occupants, shows a remarkably low mortality when compared with the general death rate of 16.9 per thousand among the white population of the city.

"Take away the hovels and filthy places, let sunshine and pure air circulate through their homes, and teach them habits of cleanliness and responsibility, and the first step toward the elevation of the degraded and the education of the ignorant will be taken, not only in the warfare against tuberculosis and other diseases engendered by insanitary surroundings, but also in the battle for higher moral and social standards."

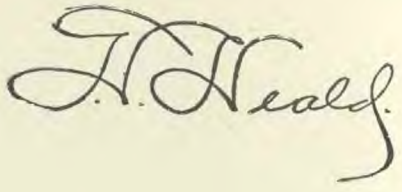
Similar testimony might be given from other sources, and is enforced by the general belief, even among the unlearned who have not had a training in hygiene, that dark, damp houses are "not healthy." Is there a real basis for this belief? Is there some reality back of the prejudice against the cellar bedroom and the dark bedroom which never sees the light of day? Can it be possible that such rooms exert a deleterious influence when there are men who, in fairly good health, live a large part of their lives way down in mines, coming up, perhaps at night, and for long periods scarcely seeing the sun?

This is not an easy question to answer. Statistics show everywhere that the mortality is higher where the housing is bad, and where there is insufficient light and ventilation; but it is in precisely the same localities that we have overcrowding, poor food, drunkenness, and the like. So how much of the poor health, after all, is attributable to the poor housing? And what, in effect, constitutes poor housing?

* * *

It would seem to the writer that when we give sufficient light, with pure air of proper temperature and humidity, we have practically solved the housing question; that is, the housing problem is one of light and air. But to secure this the house must be situated properly, must have adequate lighting and ventilation, heating and plumbing.

In general, the environment that is more comfortable is more healthful. Situations and conditions which cause discomfort of either body or mind, minister, not to health, but to the opposite. Chilly, gloomy rooms, dusty rooms, unpleasant drafts, stuffy rooms, unpleasant smells, the presence of flies or other insects,— all these things which annoy, which the well-to-do can and do avoid by favorable building sites and carefully constructed buildings, but which the poor often have to put up with,— are so many drains upon vitality, and doubtless have some part in shortening life.



General Disease From the Teeth

At the Minneapolis meeting of the American Medical Association, Joseph Head, M. D., D. D. S., read a most important paper on loose teeth,— important because the facts which he brings out are unappreciated not only by the laity, but also to a large extent by the medical and dental professions.

Referring to the fact that in recent years such diseases as Bright's disease, heart disease, diabetes, and liver, kidney, and stomach disorders are ameliorated or even eradicated by the removal of infection in the mouth, he proceeds to lay a large amount of the blame on the dentists, in the following sentence: —

"The manifestly indisputable fact that the removal of noncleansable crowns and bridges has caused the rapid disappearance of heart murmurs, violent nervous derangements, duodenal ulcer, anemia, etc., is a convincing proof of what wholesale disease has been caused by mechanical appliances now recommended."

He predicts that the dentists who will attack the problem of pyorrhea and cur this disease will take their places in the dentistry of the future. The fact is that while some dentists have for the past fifteen or twenty years made good progress in the treatment and cure of pyorrhea, there are many dentists who neglect this work, and devote themselves to mechanical work, supplying crowns, bridges, and plates.

There is coming a new dentistry, a clean dentistry. There will be a body of dentists who will keep their offices clean, who will work with clean hands and sterile instruments. There are still numbers of the old school dentists admitted to the profession before the days of asepsis, or else graduates of one-horse schools, who go on in their old, dirty way. But they are being left behind. They wonder why their offices are being deserted for younger men. The reason is simple. The younger men are adopting the fad of cleanliness, and somehow the people like it.

The dentist of the future will seek to establish clean mouths. There is no more important work on the face of this earth, for "out of the mouth" come practically all the germs by which disease is carried from one person to another. The future dentists must be clean dentists, with clean fingers, clean instruments, and clean instincts; in fact, they must be men who instinctively fear and hate dirt in all its forms, including microscopical dirt.

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The Importance of Lime in the Food

In the *Journal A. M. A.*, Jan. 17, 1914, is an article on the importance of calcium in the food which is well worth study, not that this is a new subject, but that it is here so tersely stated. The fact is, however, that we have been too ready to judge of dietaries largely from the viewpoint of their protein, fat, and carbohydrate content, with comparatively little consideration of the "inorganic" constituents.

A cry in the desert, here and there, has been calling our attention to the necessity of a proper balance of the inorganic as well as of the organic constituents of the food; but for the most part, these cries have fallen on deaf ears. One of the so-called inorganic elements is phosphorus, without which nervous tissue and bone structure could not be formed or kept in repair.

Another important element is calcium ("lime"); and the suspicion has been growing that some of the serious bodily

disorders are due to the depletion of calcium in the body, and its partial replacement by another element, magnesium. This may result from the use of foods containing an excess of magnesium as compared with calcium, or it may be caused by an excessive acidity necessitating the use of the body store of calcium to neutralize the acid. The cereals, or some of them, are preponderatingly magnesium foods, as is also meat. Carnivorous animals eat an animal, blood, bone, and all, thus getting a balanced dietary; but carnivorous man, in the bones and trimmings, throws away some of the essential mineral substances; and if this lack is not made up in other food, he sooner or later suffers for it. As the *Journal A. M. A.* says, "It should be recognized that a meat and bread diet may cause lime starvation." This same article also calls attention to the fact that a meat dietary tends to an acid condition, and thus by necessitating the combination of the calcium salts in order to neutralize the acid, drives lime out of the system. "The withholding of starches and carbohydrates and the feeding of meats and such proteins as tend to hyperacidity, will always increase the tendency to eclampsia [convulsions], epilepsy," etc. Again: —

"In excessive activity of the thyroids and the disturbances so well known as Graves's disease [exophthalmic goiter], with its hypernervous excitability, there is always improvement if meats and other acid-forming foods are removed from the dietary."

As yet we know comparatively little of the influence of the inorganic salts on metabolism; but on a few points we seem to be approaching solid ground, and among these is the necessity of avoiding a dietary that contains an excess of magnesium as compared with calcium, or one that tends to the production of excessive acid in the body.

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Tuberculosis No Longer a Bugaboo

E. R. BALDWIN, in the *Bulletin of the Johns Hopkins Hospital* for 1913, as a result of his observations and study of tuberculosis, expresses his belief that it is about time to raise a cry against the general fear of tuberculosis. For many years there has been a propaganda of education tending to make people fear the consumptive, or at least to avoid him and to desire his segregation. Is this attempted segregation doing any good? Baldwin's studies lead him to doubt it. He bases his opinion on the observed fact that practically all people contract tuberculosis when young, and that during health this original infection enables the body to resist further infection. Reinfection comes mostly from old existing lesions, when disease or accident has lowered the vitality. For this reason, he thinks that adults are very little endangered by close contact with open tuberculosis (that is, tuberculosis where the patient is actually coughing up tubercle bacilli), and not at all in ordinary association. Childhood, he thinks, is the time for infection.

If his theory is true, would it not be the duty of the State, for about one generation, to take charge of all children during the susceptible period, and let all the persons capable of conveying the disease die off? A generation of such treatment ought to get rid of the disease — *theoretically*. As a matter of fact, the probability is that the more we learn about tuberculosis, the more we shall have to learn. Possibly, after all, the disease is a merciful provision to save us from the worse fate of cancer or some other terminal affection. The writer is inclined to think that Baldwin's statement contains only a part truth, and that it would not be wise to take his propaganda too literally.

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Public Schools Made the Goat

THERE has been a tendency to blame to the inefficiency of the public schools many of our natural shortcomings. For instance, Dr. Eliot of Harvard is credited with saying: —

"Our common schools have failed signally to cultivate general intelligence, as is evinced by the failure to deal adequately with the liquor problem, by the prevalence of gambling,

of strikes accompanied with violence, and by the persistency of the spoils system."

H. Addington Bruce, in the *Outlook* of January 17, gives his opinion, in which we coincide, that —

"it would be all very well to hold the school responsible if it were the sole factor in shaping the mind of the child and determining its future development; but manifestly there are other factors of tremendous formative significance. To counteract these, as far as they are inimical to right thinking and right living, is indeed part of the school's duty; and that it does not at present counteract them as it might, must be frankly acknowledged. But even here the fault is only partly with the school; for frequently, as we are at last dimly realizing, the material on which the school has to exercise its corrective, developmental influence has been rendered almost hopelessly unworkable before the school begins to handle it."

As he says, the real trouble is that —

"education, in the sense of formal, conscious guidance and instruction, does not begin soon enough. By delaying it, as is commonly done, until the child arrives at school age, there is always the danger, as modern scientific investigation is making increasingly evident, that he will by that time have acquired aims and interests and viewpoints that may throughout life affect detrimentally his moral as well as his intellectual development."

He believes that as soon as the child's impulse to learn — his inquisitiveness — is manifested, he should have his mental hunger appeased with appropriate mental food. We do not starve a baby until he has teeth. We recognize that his hunger for food represents a real need of the body. Almost as disastrous is it to starve the intellect for mental food, or to feed inadequate mental food, during this early period of the child's life.

"Psychologists," says Mr. Bruce, "are more and more inclining to the opinion, first voiced only a short time ago by William James and Boris Sidis, that there is in every human being a store of disposable 'reserve energy,' commonly utilized only at infrequent intervals, but capable of being utilized habitually to great advantage. Compared with what they might be and do, they are, in the ordinary circumstances of life, as primitive man to his civilized fellow."

The exceptional men, according to this view, are those who have been called upon by some circumstances or emergencies to draw upon their hidden powers.

Granting this, it would certainly be so that "any process that would result in the development of an ever larger number of highly energized men and women would mark an onward step in human evolution, and add immeasurably to the world's wealth."

Mr. Bruce believes this process may be applied by any conscientious parent.

Just one trouble. The parents themselves must be taught how. It takes an exceptional parent to train a child to be a leader. But let us not blame the schools for the failures of the parents. Let us go a step farther and train for parenthood.

Is the Saloon a Social Problem?

THE *Survey* (105 East Twenty-second St., New York) gives in the December 27 issue an excellent summary of the present status and prospects of the various phases of social work,— child labor, play, labor problems, church work, juvenile courts, social settlements, civic betterment, rural advance, sex education, commercialized vice, housing, public health, etc.,— but is silent regarding the movement against the saloon. The query rises, Does the *Survey* consider that the saloon is not a social problem, or does it believe that it is a problem too great to attack? We can hardly think either of these. Perhaps it considers that the movement against the saloon has been somewhat unwisely handled, and that the less said the better.

THE MEDICAL MISSIONARY AT WORK

A VISIT TO BOMBAY, INDIA

V. L. Mann, M. D.

RECENTLY I made a very profitable and encouraging visit to the west coast in the interests of the medical work. In Bombay everything is moving at a rapid pace. This is true not only of the outside business interests of this section of India, but of our own work as well. We were quite surprised after spending two years in other cities of India to see the immense traffic in this Eastern city. We compare it with Paris. The number of vehicles passing congested points from 7 A. M. to 7 P. M. are as follows: Paris, in the Rue de Rivol, 33,232; Avenue de l'Opera, 29,460; Bombay, at the junction of Carnac and Frere Roads, 23,667. The train service out to the suburbs would make one think of the suburban service of Philadelphia or Boston. One road alone furnishes a suburban service of trains every six minutes.

Our own work in this section has caught the spirit of push. Our dispensary at Kalyan, although only five or six months in existence, reported nearly 1,400 patients, with a very encouraging income. Quite a substantial native medical work can be built up here.

KALYAN DISPENSARY

During my first visit to Kalyan the natives were a little suspicious. One man, when he suspected the knife was going to be used to accomplish a piece of work for him, rushed out of the door and ran down the bazaar, clearing the way before him. I saw him no more. After those who had been blind for a number of years had had their sight restored, their relation to our work took on a different aspect. When the villagers perceived that we had closed up our surgical work for this trip, they came to me and implored me to remain longer and help them. I had to put them off for another time.

While on the west coast, we had the pleasure of meeting several influential men, among whom was Sir Abrahim Rahimtoola, a member of the governor's council. I had the privilege of examining and prescribing for this official. We were glad of this opportunity, for we shall need his influence in helping us get treatment rooms started in Bombay. Other patients of a high class of people were met at Igatpuri and Lonavla.

The lines along which the medical work can be profitably developed in the

future are treatment rooms in Bombay; a small hospital at Kalyan, with a nurses' training course; a physician who can work up an office practice in Bombay, connect with one of the high-class native hospitals in that city, act as consultant for the hospital and training work at Kalyan, and visit patients at Igatpuri and Lonavla, being able to make his work self-supporting. Kalyan is only an hour's run from Bombay, and Igatpuri and Lonavla are two hours' run from Kalyan, the former north, the latter east.

The working out of this plan for our medical work on the west coast would take but little funds. We have already been assured of the funds for the treatment rooms in Bombay. This leaves only a small sum to be raised for the hospital at Kalyan, where our dispensary is in sore need of a place to keep a few patients. This will also allow for the training of a few medical helpers to assist in the hospital.

THE BLESSINGS OF OUR TEMPERANCE WORK

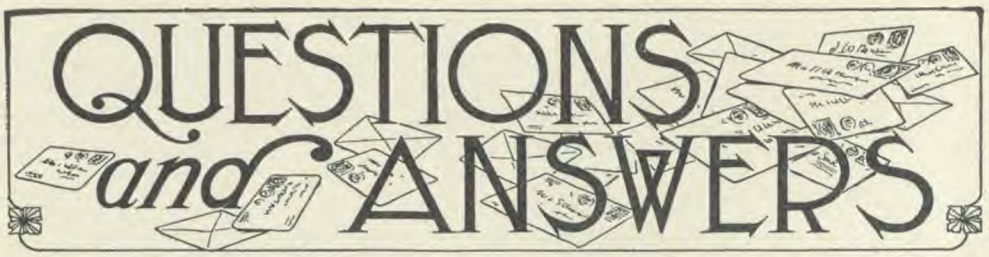
J. F. Huenergardt

PERHAPS no one can more fully appreciate the blessings of the principles of temperance than those who are working among the peoples of southeastern Europe. One poor but honest slave to alcohol seemed to wake up to the realization of his wretched condition. This man had so completely lost all power of self-control that he made himself and family very unhappy. He heard of a people, however, who assemble for Bible study, and teach people the better way. Before concluding to visit them he decided not to drink another drop of intoxicants. He was so earnest about it that he really held fast to his resolution for nearly one year.

He then came in contact with these people, attended their meetings, and gradually accepted their views. He at last asked to be admitted to their church. These people examined him before receiving him. Among the questions asked was this: "Do you use intoxicants?" He answered, "No, sir, I have not used a drop of intoxicating liquor for a whole year." "But why do you take such an extreme stand against alcohol?" was the query. "Because I was a slave to drink for many years, and if I taste another drop I shall surely be conquered again." "Well," the reply was, "we take the position that one may use wine moderately. The Christian must be able to control himself. In fact, we do not feel free to accept you as a member if you do not accept our position on this matter." At length the man saw no other way than to comply with their wishes, notwithstanding his own convictions upon the matter must be overcome.

Quite a time passed after this, and they found their brother in a drunken condition. He was at once summoned before the church, and made to give an account of himself. He answered that he had fallen because they had obliged him to take a liberal view as to the use of alcoholic drinks. He was excommunicated. He asked them, however, to be merciful, because they in reality were at fault for his having fallen.

When this man heard of the present truth, and became acquainted with our temperance principles, he manifested great joy. He at once accepted the whole truth, and now rejoices in the message of the complete gospel. Many of the people know of us as the church which does not use intoxicants, and we are proud of this name.



THE editor can not treat patients by mail. Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case. But he will, in reply to questions sent in by subscribers, give promptly by mail brief general directions or state healthful principles on the following conditions: —

1. That questions are *written on a separate sheet* addressed to the editor, and not mixed in with business matters.

2. That they are *legible and to the point.*

3. That the request is *accompanied by return postage.*

In sending in questions, please state that you are a subscriber, or a regular purchaser from one of our agents; or if you are not, accompany your queries with the price of a subscription to LIFE AND HEALTH. This service is not extended to those who are not regular readers.

Such questions as are of general interest will, after being answered by mail, also be answered in this department.

Wants to Be Stouter.— A bookkeeper nineteen years of age, of careful habits as to diet and exercise, although nearly six feet tall weighs only 140 pounds, has small waist and narrow shoulders, and complains of a weak feeling. He desires to know how he can improve the last-named condition.

It is possible that he is slender by nature. Abraham Lincoln was always slender, although he was quite vigorous and athletic. Some persons become stout in spite of themselves. I should not undertake the job of fattening a greyhound. A slender figure does not necessarily indicate anything serious, provided one is in good health otherwise.

It would be impossible in this case to determine the condition without a personal examination. One may think of incipient tuberculosis, or the roundworm, or even hookworm, as causes for the weakness. These things having been excluded by examination, I should suggest the use of corrective exercises, to throw the shoulders back in place, deep breathing two or three times a day, and possibly athletics,— some game like tennis or handball that would require more or less activity.

Brain Clot.—"A woman seventy-nine years old but seeming and looking much younger, was stricken about eight weeks ago with what appeared to be paralysis, losing the use of her right side. First she became more silent. Finally she lost the entire use of her limbs, and now must be lifted from chair to bed and back. She is taking an iodide preparation."

Your patient seems to have a clot on the brain. In old age the vessels are likely to be brittle, and some unusual excitement or shock increasing the blood pressure will cause one of the blood vessels in the brain to rupture and throw part of the brain out of commission. It is possible that in some cases such a condition may be removed by absorption of the clot. I suppose it is in order to favor absorption that the iodide has been given in this case. Aside from rest, I know of nothing that will benefit her outside of favoring the absorption of any clot that may have formed.

Inflammation of the Eyelids.—"I have a boy eighteen months old, who has all his teeth except the eye and stomach teeth. The gums are not swollen. For a long time he has had trouble with his eyes; both upper and lower lids swell, gather, and break, sometimes on the outside, sometimes on the inside. Does this come from his teeth?"

Such questions as this can never be properly answered by mail. I have no reason to think that the eye trouble results from the teeth in this particular case. It is very important that you have the boy's eyes attended to by a competent person, as otherwise you may have serious trouble. However, eye trouble, as well as other troubles, is in some cases caused by impaction of the teeth, so that it may be necessary for you to see a dentist.

Cow's Milk for Baby.—"We have two heifers that have been giving milk for ten months. Would the milk be safe to feed a baby of six months?"

This question is asked probably for the reason that it is generally believed that a young baby should have milk from a fresh cow. There is such a great difference between the composition of cow's milk and human milk that I do not think a small matter of a few month's difference in the length of time that the cow has given milk, would make any particular difference.

Deafness.—"I am getting a little hard of hearing. Can you tell me something I can do to prevent it?"

Possibly your deafness is the result of a catarrhal condition, carried from the nose and throat into the ear passages. The only way for you to get relief would be to go to some ear specialist (by this I do not mean some

advertising quack) and get his advice. It may require a number of treatments to help you. To follow any advice that I might give without having made an examination, would possibly make your trouble worse rather than better. Deafness may be due to some very simple matter that can be relieved entirely by one short treatment, or it may be the result of some condition that is incurable or curable only after a long series of treatments. The only way to know which it is in your case would be to have a personal examination.

Glycerin Suppositories.—"Are glycerin suppositories safe to use as a relief for chronic constipation in an infant?"

Perhaps; but as good results may be obtained by making use of suppositories which the mother can cut out of Castile soap.

Salycilic Acid as a Preservative.—"Do you consider salycilic acid to be injurious when used in small quantities in the preserving of fruits and vegetables?"

Salycilic acid, even in small quantities, is not recommended as a preservative of fruits or vegetables.

Alum Baking Powders.—"Do you consider baking powders made from alum harmful? Do you think the amount of alum that one would get in using a teaspoonful of baking powder to a quart of flour, would be too astringent?"

I am not certain that a small quantity of alum in baking powder is any worse than some of the other substances used in baking powder. Possibly the cry against alum is put up by companies who make the cream of tartar powders. I have not been convinced that any of these baking powders, used habitually, are any advantage to a person. The yeast breads, when properly made, are more healthful.

Shortening.—"Do you regard beaten biscuit, containing much shortening but no baking powder, injurious?"

A great deal may depend on what you mean by "much shortening." Certainly it is possible to use more shortening than is necessary or is healthful, and this is very often done.

Artificial Baby Foods.—"Is —— [a proprietary milk food], with as much cream as can be borne, a proper food for a baby?"

Possibly; but the artificial feeding of babies is not so simple as this. If one, for any reason, is so unfortunate as to have to feed a baby by artificial means, the feeding ought to be in charge of some skillful person who knows his business. Artificial feeding, in order to be successful, must take into consideration the age of the baby and other circumstances which require more knowledge than the ordinary mother possesses. There is no real substitute for mother's milk. I cannot repeat this too often. And many mothers who think they cannot nurse their babies, could do so, if they made the attempt. Next to mother's milk, the best baby food is *clean* cow's milk, from a *healthy* cow, *properly* modified. The italicized words are vitally important. It should be remembered, however, that it requires great skill to be able to so modify cow's milk as to make it approach the mother's milk in nutritive value. A very large proportion of the babies who die under two years old are artificially fed. This fact is significant.

Mineral Oil for Laxative Effect.—"In using vaseline internally as a laxative, would it be better to use the white or the amber colored, and would it hurt to take the carbolated internally? Do you object to the use internally of liquid paraffin?"

Vaseline is a proprietary preparation. I think it does not make much difference whether one uses vaseline or its equivalent, petrolatum, or liquid paraffin. Mineral oil, because it is not absorbed, acts as a lubricant through the entire intestinal tract. If it is too liquid, it probably does not act quite so well as when a little of the solid is mixed with it to make it about a creamy consistency. I do not advise the use of carbolated vaseline internally.

SOME BOOKS

Diseases and Deformities of the Foot, by John Joseph Nutt, B. L., M. D., Surgeon in Chief, New York State Hospital for the Care of Crippled and Deformed Children; Surgeon, Sea Breeze Hospital; Orthopedic Surgeon, Willard Parker Hospital, New York; Member of the American Orthopedic Association. 8vo; 105 illustrations and plates. Prepaid, $2.75. E. B. Treat & Co., publishers, New York.

This handbook was prepared for the use of physicians who have not had the time or the opportunity for thorough study of this often neglected subject. The author believes that with regard to the feet, much of the treatment is so simple that the general practitioner can and should assume the responsibility of preventing deformities, correcting abuses and those conditions which have already occurred, and treating minor diseases of the bones and joints.

Many painful and disagreeable conditions, such as chilblains, corns, ingrowing toenail, painful heel, excessive sweating of the feet, may be cured by simple measures, and these, as well as the operations for severer complications, are herein fully described and amply illustrated.

Not only physicians, but many of the laity will be interested in Dr. Nutt's discussion of flatfoot.

The chapter on Foot Apparel is well worth the attention of every reader.

Some Deafness Cure Frauds, American Medical Association, Chicago. Price, 10 cents.

There are many fraudulent and worthless "cures" for deafness on the market. Some are sold as "side lines" for other medical fakes; some are "courses of treatment" sold on the mail order plan; still others are trivial devices sold at an exorbitant price. Nine concerns are dealt with in this pamphlet.

Consumption Cure Frauds, American Medical Association, Chicago. Price, 10 cents.

Considering the fact that science has discovered no drug that has any special curative action in tuberculosis which reputable physicians can offer with confidence to the people, it is not surprising that scores of men jump at the chance to make money by the exploitation of so-called consumption cures.

Those who have not investigated the subject cannot realize how many worthless preparations have been put on the market, for which the most astounding claims are made.

Any one who is interested in this subject or has some friend who is tempted to waste money on any of these useless preparations, should send for a copy of this book.

Friends and Foes in Field and Forest, by Vesta J. Farnsworth. Review and Herald Publishing Association, Washington, D. C.

This is a book on entomology — to use a big word. In it the little creatures — insects, spiders — are represented as talking to the children, telling interesting things about themselves, and answering the questions of the children. It is a book for home reading, intended to assist mothers and teachers in interesting their children in nature study, and to lead their minds upward to nature's God.

It is well illustrated, and written in a style that is sure to hold the attention of the children; and while ministering to their natural curiosity, it incidentally teaches many lessons of value as regards the destructiveness or helpfulness of various creatures.

NEWS NOTES

Carbuncles From Stable Flies.— The entomologist of the Philippine Department of Agriculture has announced the discovery that anthrax, or carbuncle, is transmitted by the stable fly.

Sex Hygiene Lectures in Chicago Schools Discontinued.— After a trial of one year, the Chicago Board of Education has decided, it is said, to discontinue sex instruction in the schools.

Fat Absorption in the Stomach.— Two investigators (*American Journal of Physiology*, Jan. 1, 1913) give additional proof that at least in certain mammals, fat is absorbed by the walls of the stomach.

Crotalin in Epilepsy.— In a paper in the *Medical Record* of January 17, Mays concludes regarding crotalin: "As a rule, crotalin has the power of relieving the paroxysms of epilepsy if given in appropriate doses. . . . Crotalin has more power to relieve epilepsy than the bromide compounds."

The Death Rate.— According to figures recently furnished by the Bureau of the Census, the death rate in the registration area during 1912 was 13.9 per 1,000 population, the lowest rate on record for the United States. It was an unusually healthful year in other countries also, England and Wales reaching the low figure 13.3 per 1,000.

The Registration Area.— The registration area for deaths included 63.2 per cent of the total estimated population of the United States in 1912, as compared with 40.5 per cent in 1900. Virginia has been admitted as a registration State because of its recently passed excellent registration law. Other States are complying with the law, and will appear in future statistics.

Public Cups Banished.— The Pennsylvania State Board of Health on December 1 prohibited the use of public drinking cups and public towels in all places over which it has jurisdiction. Glasses have disappeared from all drinking fountains at the State Capitol, and a combination bubble and faucet has been installed for the use of the clerks. Paper towels have been installed in all departments.

Goiter Due to Improper Nutrition.— According to the Rockefeller Institute of Medical Research, goiter is probably caused by improper nutrition. Experiments with brook trout, carried on for several years, have shown that fish fed on liver developed goiter, and that fish suffering from goiter recovered when fed a sea-fish diet. It remains to be shown in what ways nutritional disturbances in man cause goiter.

Liquid Paraffin for Wounds.— One physician reports that in the Balkan war he used liquid paraffin in 920 cases with the result that, with rare exceptions, the wounds healed over in remarkably short time. Even gaping wounds with exposed bones began to heal at once. In cases of bad suppuration he added two per cent of iodoform, with good results. In some cases the temperature went to normal each time after the application of the paraffin.

Decrease in Tuberculosis Mortality.— In the statistics furnished by the Bureau of the Census, tuberculosis shows a gratifying decrease in mortality in 1912. In the registration area there were 90,360 tuberculosis deaths, or 149.5 deaths per 100,000 population. This is still higher by far than it ought to be, and it is hoped that the campaign waged against the disease will still farther decrease its fatality. The tuberculosis death rate is still more than ten per cent of the total death rate.

Leprosy Apparently Cured.— *Public Health Reports*, Jan. 1, 1914, gives an account of two additional cases of leprosy treated with hypodermic injections of chaulmoogra oil and resorcin with apparent cure. The patients were observed for two years before their release, during which period they showed no signs of leprosy, and no lepra bacilli could be found on microscopic examination. In these cases, there was no vaccine treatment, so that the beneficial effects must be attributed to the oil injections.

Oxyfakery.— *Public Health*, the bulletin issued by the Michigan State Board of Health, has in the November issue the *Collier's* article "Oxyfakery," written by Samuel Hopkins Adams. This article, dealing especially with the "oxypathor," shows up the miserable quackery that is behind all these insults to common sense. Until the laws can put behind prison bars the men who thus prey upon the credulous, every possible means of publicity should be used to show up the wicked character of these gas-pipe frauds.

What Can We Expect of the Laity?— When physicians will send infectious material, like diphtheria membrane, through the mails between pieces of cardboard inclosed in an envelope, as was done in a certain Southern city, and thus cause an epidemic of diphtheria in the health office,— when physicians, who are supposed to know better, can be guilty of such criminal stupidity, what can we expect of the common people? The doctor who did such work, if he is known, should have his license revoked, and be given a term in the penitentiary. And I am not sure but some punishment should be made to reach the school that granted him a diploma.

Bichloride Regulated.— The New York Department of Health announces an amendment to the sanitary code, which reads: "Bichloride of mercury, otherwise known as corrosive sublimate, shall not be held, kept, sold, or offered for sale at retail in the dry form except in colored tablets individually wrapped, the wrapper to have the word 'Poison' conspicuously placed, and dispensed in sealed containers of glass conspicuously labeled with the word 'Poison' in red letters." This ruling does not apply to tablets containing one to ten grains or less of the drug.

Influence of Medical Inspection.— The percentage of New York City pupils who require treatment for defects has declined very measurably in three years, showing the beneficial effect of medical school inspection. In the following list, the first figure in each case is the percentage of pupils requiring treatment in 1909, the second figure the percentage requiring treatment in 1912. There has been a marked improvement in every instance. Requiring dental treatment, 57, 49.4; defective vision, 13.4, 7.3; defective nasal breathing, 18.7, 7.6; enlarged tonsils, 22, 10.4; malnutrition, 3.14, 2.8.

Alcoholism and Epilepsy.— Matthew Woods, M. D., of Philadelphia, read before the section of psychology of the Seventeenth International Congress of Medicine, London, 1913, a paper giving an account of seven cases of epilepsy in children which were traced to single intoxications on the part of one or both parents, otherwise teetotalers. In this paper he refers to numerous authorities who have shown a close connection between alcoholism in the parents and epilepsy in the children. In most cases the epilepsy is believed to be due to chronic alcoholism on the part of the parents. The writer shows that at least in these seven cases the epilepsy followed a single overindulgence on the part of the parents.

Life Extension Institute.— There has been incorporated in the State of New York a Life Extension Institute, the purpose of which is to lengthen human life by applying the resources of modern science. It will perform this service both for the insurance companies and for the general public by examining periodically the physical condition of policyholders and other individuals, and by disseminating life-saving knowledge. The method to be used to prolong life is very simple, and the same as that applied to ordinary machinery — inspection and repairs. Policyholders in companies which employ the institute may without cost to themselves have expert medical examinations. Other persons may have such examinations for a moderate fee. Dr. Fisk, as a result of his experience in similar work in connection with the Provident Savings and the Postal Life Insurance Companies, is convinced that, by inducing men to consult their doctor before it is too late, the early discovery of slight "impairments" has greatly reduced the death rate among those who took the examinations.

"Burbanking the Human Race."— In an exchange, Sheehan suggests that "when the eugenists succeed in Burbanking the human race, if they ever do, we shall have love according to legal statutes. Love and affection will no longer have their place in Dan Cupid's curriculum. We might have laws commanding an Irishman to marry a Russian woman, a Frenchman to marry a Polander, an American to marry an Italian, etc." But such a time will never come. Sane eugenists have no such program, and the fanatics will never be able to carry out their program.

Cure of Insomnia.— Hirshberg, in the *New York Medical Journal*, says that insomnia is more easily treated than cured. He advises against the use of hypnotic drugs. Among his recommendations are regularity of habits, change of scene, and hydrotherapy. He concludes: "The victim must be made to understand that insomnia is a bad habit, to be broken. Beds, pillows, furniture, and rooms must be changed about. Low pillows must be made high. Light bed covers must be made heavy. Food at night must be stopped, or begun in some instances. Hot drinks, hot baths, massage, light rubs, gymnastics, galvanism, and exercise must be started." Each patient is a law unto himself, according to the doctor.

Child Labor Laws.— During the present year ten legislative campaigns will be conducted in as many State legislatures in order to secure better protection for children. Owen R. Lovejoy, general secretary of the National Child Labor Committee, says that of the twelve States whose legislatures meet in 1914, ten are far below the standard in their child labor laws. Not one of them has the eight-hour day for all workers under sixteen years of age, and three of them — Georgia, Maryland, and Virginia — allow their children to work at night. Three — Georgia, South Carolina, and Mississippi — have age limits lower than fourteen years for factory work. In Georgia, children of ten may legally work in the mills.

Sanitation in the Library of Congress.— Public towels have been banished from the Congressional Library, and in their place have been substituted paper towels. But the public drinking cup is still in evidence. This must seem somewhat of an anachronism to visitors who have ridden to the capital in cars in which the government has abolished by law the public drinking cup. If the railway companies should furnish public drinking cups for their patrons, they would be punished by Uncle Sam; but in his most ornate building, Uncle Sam himself still displays the public cup. When the attention of the librarian was called to this discrepancy, he replied that the management was endeavoring to find some device that would be *sanitary and yet esthetic*. Until Miss Sanitation can appear attired in garments that harmonize with the surroundings, she must not show herself in the great library building. Esthetics first.

Warfare Against Whooping Cough.— The city of New York is going after the whooping cough germ in earnest by establishing an open-air whooping cough camp on board the Helen C. Juillard Floating Hospital. Little patients will be taken there for care, and their mothers will be taught how to care for them at home. Dr. Baker, in charge of this work, will establish whooping cough dispensaries wherever possible. We are just coming to sense the fact that whooping cough is really a dangerous disease. Health department statistics show that many children less than five years old die of this disease because of lack of proper care.

Warding Off Deafness.— Fernet asserts that by exercising vigorously the muscles of the face, temple, and ears, the deafness of old people may be averted. There are muscles around the ear which ordinarily are beyond the control of the will, but by proper instruction and practice a person can be taught how to work these muscles. Fernet calls attention to the fact that children often have the power to move the ear, and he thinks that adults lose this power through nonuse, and that if one can regain control of the outer muscles which move the ear, this will bring in play the muscles inside the ear which have the same nerve supply. Thus by making grimaces with the lips, nostrils, eyelids, scalp, and having in mind all the time the desire to move the ear, it is possible one may eventually gain control of these small muscles.

Sausage Poison.— A few hundred cases of sausage poisoning, with a mortality of about forty per cent, have been reported. These cases have occurred a few at a time and in various places. The cause of the poisoning, as has been shown in numbers of instances, is the presence of a certain germ, *Bacillus botulinus,* and its products. For some reason it seems to thrive more commonly in sausage than in other meat products. The symptoms are intense pain, violent vomiting, high fever, and exhausting diarrhea. In some cases, however, there is little or no pain, but profound disturbance of the higher nerve centers. Poisoning, in some cases, has been caused by the use of mussels.

Effect of Sugars on Digestion.— E. Thomsen (as quoted in the *Experiment Station Record*), November, 1913, gives some of the results of the administration of sugar with food to animals having duodenal and gastric fistulas. "The results obtained show cane sugar to have no direct effect upon gastric secretion. It also does not influence pancreatic or biliary secretion. It prolongs gastric digestion by its action through the small intestine in lengthening the intervals between the emptying of the stomach, during which time the bile and pancreatic juices are being secreted. Cane sugar is almost completely absorbed in great quantities in the small intestine, and by preventing the absorption of other products, prolongs the action of hydrochloric acid."

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DEEP BREATHING

By D. O. Harrell, M.D

I BELIEVE we must all admit that deep breathing is a very desirable practice. Furthermore, we know it to be a fact that not one person in twenty, or perhaps one person in a hundred, really breathes deeply. Every physician can verify the statement that we are daily called upon to prescribe drugs for ailments that owe their cause directly to insufficient and improper breathing — Oxygen Starvation.

Breathing is the Vital Force of Life. Every muscle, nerve cell, in fact every fibre of our body, is directly dependent upon the air we breathe. Health, Strength and Endurance are impossible without well-oxygenated blood. The food we eat must combine with abundant oxygen before it can become of any value to the body. Breathing is to the body what free draught is to the steam boiler. Shut off the draught, and you will kill your fire, no matter how excellent coal you use. Similarly, if you breathe shallowly, you must become anæmic, weak and thin, no matter how carefully you may select your diet.

I might continue indefinitely to cite examples of the great physiological value of deep breathing. For instance, it is a well-known fact that worry, fear, and intense mental concentration practically paralyze the breathing muscles. This depressing condition can be entirely overcome through conscious deep breathing.

The main benefit of physical exercise lies in the activity it gives the lungs. What we term "lack of healthful exercise" in reality means insufficient lung action. Exercise that does not compel vigorous deep breathing is of little real value. Unfortunately, few persons have the strength and endurance to exercise violently enough to stir the lungs into rapid action. This is especially true of women and also of men who have permitted their muscles to become weak. Common sense, therefore, dictates that the lungs should be exercised independently through deep breathing gymnastics.

Unfortunately, few persons have the slightest conception of what is really meant by deep breathing. In fact, few physicians thoroughly understand the act. Ask a dozen different physical instructors to define deep breathing, and you will receive a dozen different answers. One tells you it means the full expansion of the chest, another tells you it means abdominal breathing, the third declares it means diaphragmatic breathing, and so on.

Recently there has been brought to my notice a brochure on this important subject of respiration, that to my knowledge for the first time really treats the subject in a thoroughly scientific and practical manner. I refer to the booklet entitled "Deep Breathing," by Paul von Boeckmann, R. S. In this treatise, the author describes proper breathing, so that even the most uninformed layman can get a correct idea of the act. The booklet contains a mass of common sense teachings on the subject of Deep Breathing, and "Internal Exercise." The author has had the courage to think for himself, and to expose the weaknesses in our modern systems of physical culture.

I believe this booklet gives us the real key to constitutional strength. It shows us plainly the danger of excessive exercise, that is, the danger of developing the external body at the expense of the internal body. The author's arguments are so logical it is self-evident that his theories must be based upon vast experience. Personally, I know that his teachings are most profoundly scientific and thoroughly practical, for I have had occasion to see them tested with a number of my patients.

The booklet to which I refer can be obtained upon payment of ten cents in coin or stamps by addressing Dr. von Boeckmann directly at 2770 Tower Bldg., 110 W. 40th St., New York. The simple exercises he describes therein are in themselves well worth ten times the small price demanded.

Special Books on Sex Hygiene

It is a well-known fact that the conditions of many people today might have been greatly improved had they been properly instructed when young. For young people to be permitted to grow up to manhood and womanhood without a knowledge of the vital forces of life, is a great injustice to them. There are many parents who know this to be true, and greatly desire to be able to impart the instruction in a wise way, but who from lack of education are unable to do so. To all such we recommend the following books:—

For Boys

Truths: Talks With a Boy Concerning Himself, by E. B. Lowry, M. D. 55 cents.

Almost a Man, by Dr. Mary Wood-Allen. 50 cents.

What a Young Boy Ought to Know, by Sylvanus Stall, D. D. $1.00.

For Girls

Confidences: Talks With a Young Girl Concerning Herself, by E. B. Lowry, M. D. 55 cents.

Almost a Woman, by Dr. Mary Wood-Allen. 50 cents.

What a Young Girl Ought to Know, by Dr. Mary Wood-Allen. $1.00.

For Young Men

What a Young Man Ought to Know, by Sylvanus Stall, D. D. $1.00.

What a Young Husband Ought to Know, by Sylvanus Stall, D. D. $1.00.

For Young Women

What a Young Woman Ought to Know, by Dr. Mary Wood-Allen. $1.00.

What a Young Wife Ought to Know, by Dr. Mary Wood-Allen. $1.00.

For Men of Mature Years

What a Man of Forty-Five Ought to Know, by Sylvanus Stall, D. D. $1.00.

For Women of Mature Years

What a Woman of Forty-Five Ought to Know, by Dr. Mary Wood-Allen. $1.00.

The foregoing books are highly recommended by physicians throughout the country. One of the most important periods in a person's life is when a boy or girl is blossoming from boyhood or girlhood into manhood or womanhood. Their future usefulness and happiness depends to a large degree upon proper instruction at such a time. The books here mentioned have been a great boon to many.

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