Life & Health

THE NATIONAL HEALTH MAGAZINE

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JULY

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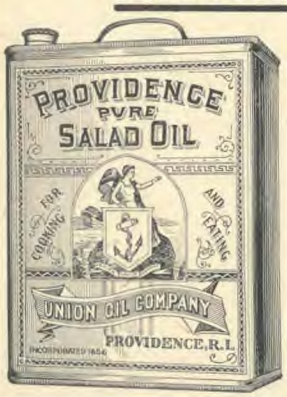

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"Chasing the Cure"

George Wharton James recently received the following letter:—

"*My dear George Wharton James,—*

"I tried to see you while you were passing through Los Angeles, but you were away. I have been obliged to join the pilgrims of the health quest. Overwork has bowled me over — temporarily and not too crushingly — but if I do not look out, the tubercular bugs will get me, so the experts say. So I expect to pass several months in the Southwest. I was very anxious to secure the benefit of your experience in the matter of where to go, etc."

The writer had just been preparing to enter an extensive literary campaign, when a hemorrhage warned him that he must give his first attention to his health. This is but a sample of many letters that Dr. James receives from time to time, owing to his extensive and practical outdoor life experience. It is in answer to such letters that he gives in the August LIFE AND HEALTH his prescription for "chasing the cure."

"If I could but induce those who are beginning to fail in health," he says, "those who are nervous and despondent, those who have just begun to have hemorrhages, those who have dyspepsia, to cut loose from all civilization, get two or three pack-animals and a friend or two to go along, and start out for the open, I know health would begin to follow them on the first day, and in a comparatively short space of time they would be well and happy, with renewed energy to take up the battle of life."

Mr. Herbert M. Lome's articles on camping are for the benefit of those, mainly, who can not go far from home. In the August issue he treats of foods and clothing for the camper-out.

Fred W. Beckman will tell LIFE AND HEALTH readers how a broken-down physician, given up by his physicians, went West, and became a vigorous farmer and editor of one of the best-known agricultural publications in the country, having now at seventy more vitality than most men have at forty.

An experienced physician gives an enlightening chapter on cancer, the disease that seems destined to outrank tuberculosis as the enemy of mankind.

Dr. D. H. Kress writes on the subject, "Some Recent Discoveries and Scientific Facts Relating to Alcohol."

Alphonso Irwin has in the August number an excellent article on the care of the baby's mouth and teeth.

CONTENTS FOR JULY

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RESTING IN THE WOODS

"A woman may become better acquainted with herself in the woods than in any other manner. It is well for her to visit the forest for this especial purpose. With a congenial friend a visit to the woods is a positive delight"

VOL. XXV
No. 7

LIFE & HEALTH
THE NATIONAL HEALTH MAGAZINE

JULY, 1910

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

Published Monthly GEORGE HENRY HEALD, M. D., EDITOR Washington, D. C.

Open-Air Schools

James P. Warbasse, M. D., New York; Author of "Medical Sociology," Formerly Editor New York State Journal of Medicine

NEW UNION STATION

TUBERCULOSIS has not been an altogether unmitigated evil. That it has been a factor of enormous influence in preventing the propagation of the physically unfit, must be recognized. Unfortunately, the physically unfit who have perished of tuberculosis have often been the flower of the mentally fit. The modern desire is to save them all. It is recognized that fitness is relative, and not an actual condition, fluctuating from generation to generation.

The thing of great practical moment that has come out of the battle against tuberculosis has been the treatment of the disease; and this is of greatest importance, not so much for the tuberculous as for the non-tuberculous. The former will soon have perished of tuberculosis or some other disease, but the latter we shall have always, and outnumbering the former many times. It is of much moment that the latter represent the potentially tuberculous: they may or may not acquire the disease.

Of the two, the non-tuberculous are the more important; and it is for them that we should be most concerned. To prevent them from joining the ranks of the tuberculous should be of more concern to society than the cure of the tuberculous. Keeping the healthy well is a higher mission than making the sick well. This proposition is founded upon the assumption that the well are of more value to society than the sick.

Unfortunately the well have had to learn their best lessons in hygiene from the sick. The latter furnish the inspiration for them to stay well. They picture forth the horrible conditions into which the well desire not to fall. Tuberculosis is the penalty of bad living. The tuberculous recover when made to live hygienically. That is the simple essence of the treatment. Had they lived that way before, they would not have become tuberculous. The non-tuberculous are learning the lesson, and, by living after the manner which the tuberculous pursue in order to recover, they are avoiding tuberculosis. The wise believe that it is better not to acquire tuberculosis than it is to be cured of it.

The newest application of the principle of treatment is to schoolchildren. We are still in that benighted state in which children require to be sent out of the home, all to be taught together the same things, and to look alike, and all to have the same ready-made ideas. A step for-

ward in this herding process has been instituted for the physical welfare of these victims of our social ills. Open-air schools have been organized to give tuberculous children the advantages of hygienic surroundings while at school. This is admirable. But it begins one step short of where it should. The teachers and children who are given the benefit of these open-air schools should not be the tuberculous but the well children and teachers. The tuberculous children and teachers should not be in school at all. The machine should be moved along just one notch.

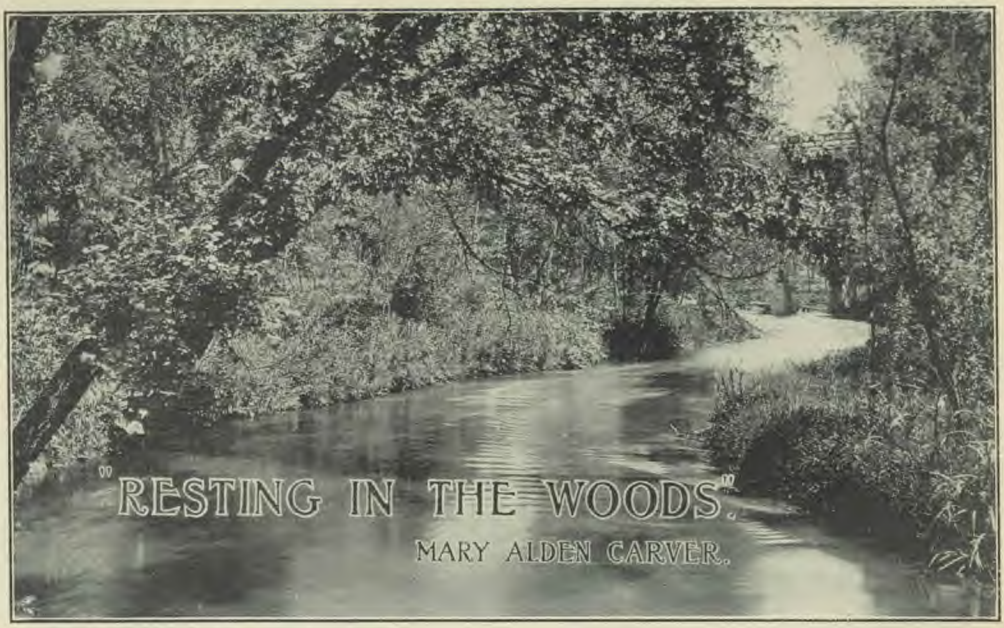
This proposition is rather premature; but some day we shall give the well the same advantages which we now so lavishly press upon the diseased. It is not to be implied that all children going to school in the winter should sit out in the snow. This might interfere with the pursuit of knowledge. The matter can be kept within the bounds of practicability, just as the matter of outdoor sleeping is being solved in a practical way by many healthy people. We do not know that a person with tuberculosis could, without some difficulty, find a much worse environment than the average schoolroom. This being the case, we may, with equal justice, say the same of the non-tuberculous.

Children who can not be in a "full-time" class clamor at the doors for admission to a "half-time" class. If their environment when out of school could be controlled, the "half-time" class would be a blessing. Indeed, a *quarter-time* class should be regarded as an even greater desideratum, until the school can offer better hygiene to all.

Theoretically, the architecture of our schoolhouses provides adequate ventilation. But the theory must step aside to give place to the fact that clinically it is demonstrated that the occupants of these places become the victims of ills peculiar to inadequate ventilation; and that fact has precedence over theory.

Tuberculosis is here used as a peg upon which to hang this thesis. It really stands for all the ills incident to the vicious hygiene of the school. It is addressed to the pallid faces of those who stand upon the brink of physical unfitness, ready, but not yet swept into the great maelstrom.

AN OPEN-AIR SCHOOL IN LONDON



"RESTING IN THE WOODS."

MARY ALDEN CARVER.

THERE is pleasure in the pathless woods," wrote the poet; but few there are who realize just what he meant when he made the statement. The words are eloquent, however, to those who know the forest and have found enjoyment, rest, and health within its boundaries. They who know the woodland best like it most. As one grows more intimately acquainted with these tracts, the trees speak more eloquently to him and lure and attract with a peculiar and indefinable subtlety all their own.

The scientist finds among trees a vast field for investigation. The poet listens to his muse with clearer understanding in the thickets. The laborer breathes more deeply, and becomes stronger mentally, morally, and physically when he toils with the trees about him. The invalid finds the health he seeks, and the strength he covets, while inhaling the ozone of wood-crowned areas. The weary and discouraged are soothed and comforted in the groves.

Women, as a general rule, know but little about the forest. Many women never enter its shady retreats or learn of the repose and rejuvenation awaiting them there. Every woman owes it to herself and her family to spend as much of her time as possible out-of-doors. If she would realize to the utmost what outdoor life may mean to a person, she should visit the woodlands as frequently as possible.

Various missions may call one to the forest. Woodland scenes are vastly different from home environments, and it is easy for a woman to forget her household worries and anxieties when she visits a timbered region. Sometimes the commercial aspect may appeal to her, and she is enticed after berries or wild fruit. Nuts attract women in the autumn, while herbs or birch bark or autumn leaves may lure them from home. Whatever the motive that leads a woman to the forest, the time spent therein should be made a season of relaxation and recuperation. A person

learns to rejoice in the air and sunshine, and becomes restive and impatient if restrained from visiting the groves and demanding their opportunity for conversing with nature, together with the chance for observation and the time afforded for meditation and self-communion.

It matters not how one learns to know the trees. Their acquaintance may be formed in a forest, a park, or along some shady boulevard. A person is better for knowing any tree intimately. Life is broader and better in the proportion of the number of trees visited and the knowledge accumulated.

Even though a woman is oblivious to the intricacies of life in the woods, she is better off for being in its midst. She may go alone or with others, she may stroll about or remain idly seated, she may read or rest, walk or wait, fast or feast, the forest will reward her for her time devoted to it just the same.

The main thing is for one to visit the trees with as calm a sense of tranquillity as possible, and be in a state of passive content. The forest will bestow this sensation to a remarkable extent, but the tonic effect of a visit to the woods is increased as one yields completely to the spell that one feels intuitively is being woven about the guest in its labyrinths.

Perhaps one merely seeks out a secluded nook and loiters in idleness there. Perhaps one is keenly alert to the music of the wild birds, the activities of ants or other insects. It is all the same; tired senses are refreshed in either case. The flowers and ferns, the rocks and soil, the breezes — all have their own messages. Women should learn to listen to them more attentively.

A woman may become better acquainted with herself in the woods than in any other manner. It is well for her to visit the forest for this especial purpose. With a congenial friend a visit to the woods is a positive delight. With children in a forest a woman has a wonderful opportunity for pleasure and mutual benefit. An animal, such as a dog, becomes almost human when one has it to one's self in a woodland tract.

If a woman wishes to rest, she need not be perfectly idle.

> "Rest is not quitting this busy career;
> Rest is the fitting of self to its sphere."

So a sketch-book may make the rest period a season of rejoicing for a long time after an expedition is ended. Some prefer a trowel and a herbarium. Others are always armed with a good field-glass. A small magnifying-glass is an admirable weapon. And no one ever regrets taking a camera along when going to the forest.

It is good to go to the woods in various moods and at different seasons. When the pulse leaps, and joy is rampant, the woods will control the spirit and conserve its energies. When a woman has worries and perplexities, the woods will frequently help her to a solution of her difficulties. They have a healing for headache, and a balm for heartache. They soothe the nerves, calm impatience, and stimulate one in moments of discouragement.

They who are helped most by the forest, know it in all of its varying aspects and conditions. One is benefited strangely by a glimpse into a winter woodland and a knowledge of a timbered locality at this season. It is interesting to visit a forest when the rain is falling, or when the weather is cheerless, and the world seems desolate.

Some women are helped most by little journeys to different portions of a thicket. They exult in the difficulties presented by a tangle of blackberry vines, a difficult ascent, or a boggy morass. A single tree or some particular retreat will attract other women. They find all they

desire in yielding to the invitation it holds forth to them to come aside and rest. A tree on the lawn at home affords many all the pleasure and enjoyment that others learn to know only when they have sought out wilder and more difficult scenes.

One should go to the woods with the determination to rest. The mind should be buoyant and composed at the end of an outing, even though this sensation is acquired at the expense of great bodily fatigue and exertion.

It is well to have a thought to dress if the best results are to be obtained. For if gowned inappropriately, there is a constant nervous strain and a half-conscious sense of irritation that counterbalances much of the good one naturally expects to derive.

In the first place, the woman who wishes to relax thoroughly and find complete rest will wear nothing into the woods that may be easily soiled or spoiled. She should also endeavor to dress as comfortably as possible. She should wear easy, well-fitting shoes and light garments, so that the entire body may be as unhampered as possible.

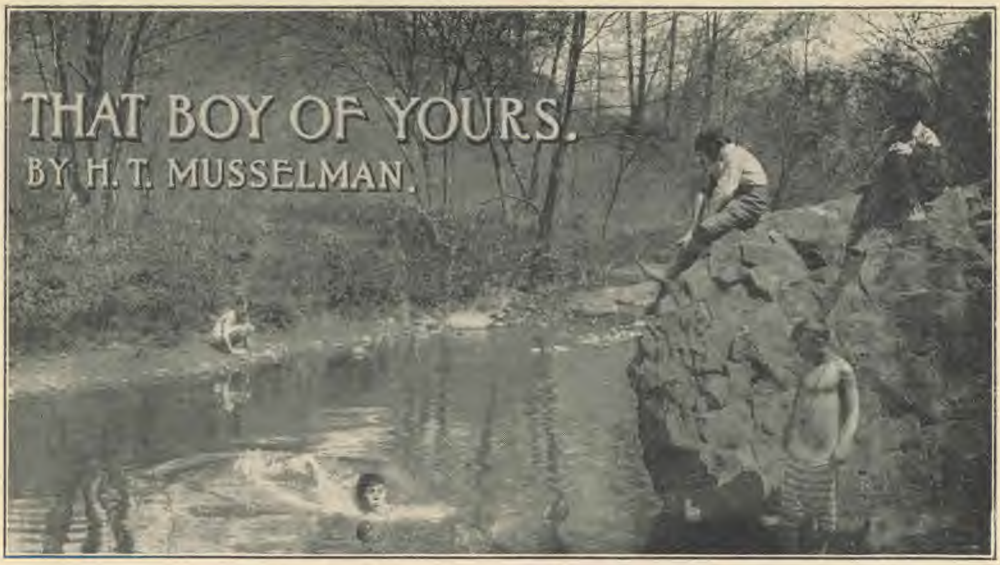
A book is an ideal companion in the woods, and a favorite author will bring a new message to the reader in the forest.

Whatever the quest, even though it be nothing but curiosity, a woman seldom regrets a woodland pilgrimage. One such visit usually creates an appetite for many similar expeditions.

Many a woman thinks long and gratefully of the hours she has spent among trees, and agrees with the poet who says: —

"Among the beautiful pictures that hang on Memory's wall,
Is one of a dim, old forest that seemeth the best of all."

"They exult in the difficulties presented by . . . a difficult ascent"



NO. 6—THE GANG INSTINCT, AND WHAT IT IS WORTH

IN several former articles, we have referred to the existence of the "gang" among boys, and to its influence on boy life. It is time now to look at the gang instinct, and ask what it is worth in our work with boys. Perhaps this look will open our eyes to a side of boy life which we have not as yet seen. If we are going to solve our boy problem, we must see him as he is in himself, and as he is in the world in which he lives. He probably belongs to some gang or club of his fellows, and that gang or club forms a large part of the world in which he lives. No, you may not dream that that boy of yours belongs to any such clique or club, but this dream is no more likely to be true than other dreams. Most boys belong to some such gang or club, even in country districts. The writer himself was a country boy, and well can he recall his escapades with the gang. Only where there are not enough boys of the same age to form such a gang, do we find its absence in the social life of the boy. The boy joins the gang because of the gang instinct, just as the child plays because of the play instinct.

Does any one ask now, What is the gang instinct? Well, let us describe it rather than define it, as descriptions are always clearer than definitions. The boy, like the sheep, is a gregarious animal, or, to state it in more dignified language, he is a social animal. As one writer says, "There is a time when a boy merges from the narrow bounds of a dependent self-life and from the limits of the school and the home and seeks the larger social world of the street and the gang. There is a yearning to be with

Mr. Musselman is not describing the "good boy of the Sunday-school book," but the boy as we find him — the boy that is a mystery to his elders, a trial to his parents, and a torment to his sisters. He is rough; but he is a diamond in the rough, and like a diamond, requires skilful treatment to develop his value and beauty. The gang instinct, which is often the means of leading the boy to ruin, may be the means, in tactful hands, of developing his nobler qualities.

and for one's kind. This is seen in the growing team-work spirit in games, in the various clubs which now spring up almost spontaneously, in the slowly increasing interest in social gatherings and in the other sex." This spirit of seeking the larger social world is the gang instinct. It is just as natural as the instinct for play in child life, and the instinct for home in adult life. The fact that a gang at times may commit some desperado deeds does not argue the sinfulness of the gang instinct. The instinct is legitimate, and full of possibilities of great help as well as of great danger. It can be used for divine ends as well as for the ends of the devil. "Sin is the use of divine means for undivine ends." The gang instinct is a divine means, and it is our part to discover how it can be used for divine ends. Of late the literature dealing with this subject has been increasing, and there is no reason now why every lover and worker with boys should not come to understand the place of the gang in boy life. Perhaps the best book on this subject is that study of social development called "The Boy Problem," by William Byron Forbush, "the American wizard with boys."

A HORNETS' NEST AT CLOSE RANGE

The gang itself is the first social grouping of the boys of a community or street or section beyond the limits of the home. It is a kind of tribal organization formed among the boys themselves. At its center is one boy who possesses the qualities of leadership, especially that of physical strength. This boy is the self-constituted chieftain of the clan, and as such is its lord and master. The other members will follow him as their hero. The number of boys in a gang may be many or few. Most gangs, however, are made up of a selected number with a common spirit. The meeting-place may be a secluded street corner, a dilapidated house, a box car, a barn loft, or some such solitary place. The more rude and barbaric the meeting-place, the better it suits them, for the boy at this age is in the savage stage of his development.

The gang is always organized for activities, and its deeds may be good or evil, usually both. The ideals of strength and courage and daring are its foundation pillars. It is said that no boy craves to be chaste, honest, and religious, but that all desire to be heroic and manly. As Forbush says, "The average boy would rather shake hands with Jim Jeffries than with G. Campbell Morgan." Nothing delights one gang so much as to fight with another gang, and pitched battles on the back streets in our cities are frequent. Some gangs whose imaginations have, therefore, been inflamed, form themselves into criminal

societies, and, as Travis says in his "Study in Juvenile Delinquency," "pledge themselves to testify in favor of any who are caught, and to stick by the gang in every possible way." This, he says, is not morbid or inherent viciousness, as is proved by the fact that more than once a remarkably tough gang has been enlisted, every member, in useful work, and has become a thoroughly useful club under tactful leadership. Jacob Riis tells how his wife met such a gang and turned their desperado spirit into the ways of righteousness. "My wife," says he, "discovered the conspiracy, and, with woman's wit, defeated it by joining the gang. She 'gave in wood' to the election bonfires, and pulled the safety-valve upon all the other plots by entering into the true spirit of them,— which was adventure rather than mischief,— and so keeping them within sane lines. She was elected an honorary member, and became the counselor of the gang in all their little scrapes. I can yet see her dear brow wrinkled in the study of some knotty gang problem which we discussed when the boys had been long asleep. They did not dream of it, and the village never knew what small tragedies it escaped, nor who it was that so skilfully averted them."

We can begin now to see something of the worth of the gang instinct in our work with boys. It is in the gang that the boy learns his first real lesson of loyalty. This loyalty consists in worshiping the hero chieftain and in defending the honor of the other members of the gang. The gang is a sort of socialized selfishness of its constituent members, the leader, or chieftain, being the center around which this socialized selfishness centers. This loyalty of the gang is therefore at the first little more than devotion to one's own self in this larger socialized sense. Loyalty at the best, as some one has said, is not the truest basis for ethical conduct, and yet the lesson of loyalty is no mean lesson to learn.

"This above all: To thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man."

These words of Shakespeare, while not bearing explicitly on this point, are closely related.

Again, the worth of the gang is seen in the fact that it teaches its individual members respect for the opinion of the gang as a whole. This, if rightly used, can be made the stepping-stone for public opinion at large, and farther on, respect for the law of the land as that which sums up the opinion of the public for civic conduct. This respect for the gang on the part of its members is absolute. Of no other society can it be said with more truth that "whatsoever sins it remits, they are remitted, and whatsoever sins it retains, they are retained." To these words of Paton, we should add those of Forbush: "Parents may have slaved a life long, they may have made the inculcation of morals a daily care; these new companions of the gang have been known only six days, but they are public opinion."

Still another lesson taught by the gang is the lesson of endurance and hardship. As already said, the heroic element is at the basis of the gang's activities. There is no place for the weakling in the gang. The law of the survival of the fittest is supreme here. Strength, courage, and daring are the only saintly virtues in gangdom. The only Christian worthy of consideration to the gang is "the fighting saint" so well personalized in Colonel Roosevelt. These qualities call for endurance and hardship, and in view of the coddling which so many boys receive in their homes, the gang is perhaps one of nature's barbaric survivals through which she is seeking to overcome the superabundance of the feminine elements in our modern manhood. We

have a great deal of sympathy for that fourteen-year-old boy, who, when his mother began to speak of his beauty and to call him her own darling honey, said, with some degree of impatience, "O mother, call me a billy-goat, but don't call me 'honey.'" What that boy was hungering for was a dash of the rough-and-tumble life of the gang. Pres. G. Stanley Hall is preaching to-day with the force of a Paul the supreme need of will training in American education and life. If we would build the will, which is the backbone of the mental life, into the minds of our boys, we must cease our coddling, and provide for them heroic endeavor and manly activities with a dash of the daring in them. It is here that the gang instinct furnishes us an adequate means, and the gang itself, when led by a wise adult, supplies a splendid instrument. Personally, we believe in the gang. Professor Coe contends that "the church must somehow become the religious gang to the early adolescent." One way for this to be accomplished is for some of its manly members to identify themselves with the various gangs, formed by the boys themselves, which may exist within the territory of the church. If one is a lover of boys and sympathetic with them in their struggles, it will be possible to join one of these gangs and capture it for righteousness, just as Mrs. Riis did in the gang spoken of above.

THREE OF A KIND

The House-Fly

Benjamin W. Douglass, State Entomologist of Indiana

IN THE TREASURY

A SHORT time ago I sat down to a hurried lunch in which a recently opened can of sardines played an important part. The small fish were of excellent quality, and I had eaten two with considerable relish when an examination of the third revealed, closely pressed against the side, an oil-soaked fly.

I felt about as Jerome must have felt when his pet rat was drowned in a jar of jam, and no one knew what had become of the poor thing until the second helping.

The sardines in question were alleged to have come from Portugal. Whether this was so, or whether they came from the fisheries of the Maine coast, I am unable to tell; but I was at least sure of the identity of the fly. He was in such condition from the preservative effect of the oil that a mere glance sufficed for his identification as the house-fly,— *Musca domestica*,— and whether he came from the Spanish peninsula or from Canada or from my neighbor's barn, I was as sure of his life history as I was sure of his name.

I knew that the egg from which he came was laid in filth; that all his youthful, larval, growing days were spent in filth; that he lived and grew in the vilest offal that his mother fly could find. And when he finally emerged as an adult insect, he walked about on this same filth, and on other filth which he, perchance, might find. After a whole career of filthy life, with claws badly loaded with bacteria of every sort, the fly found my sardine, and came to me.

Do you wonder that I banished the remainder of the can? And yet I have known, and still know, many persons who would simply say, "O, it's just a fly! What difference does that make?" It really makes all the difference in the world,— the difference between cleanliness and dirt, decency and pollution, even the difference between life and death.

Until almost the very present the house-fly has been accepted as a disagreeable but unavoidable nuisance. It was but yesterday, so to speak, that the fly was proved guilty of carrying the germs of disease upon his feet.

Through all the years of the dim past, in all lands where men have lived, the fly has been a constant companion of humanity. We have accepted his annoyance as such because of our ignorance of the insect's real iniquity.

The house-fly, or, as Dr. Howard calls it, the typhoid fly, is so important a factor in the public health that I am convinced that the most vital problem in economic entomology in America to-day is to provide some measure for controlling this pest. With the control of the common fly, however, we face the most gigantic problem of insect control that has ever confronted mankind. The fly is entrenched behind a bulwark of public ignorance, and not until we educate the common people to a realization of their danger shall we be able to make much progress in fighting this enemy.

It is probable that the enlightened readers of this paper do not realize the extent of the popular ignorance on this subject. The people who *should* read this article will never see it, or if they do, will ignore it. It is too true that the people who most need the preaching never go to church.

An extensive experience in field work has taken me into many country homes, and has given me an opportunity to see how the common people really live. I have observed that one can learn but little of a people by staying in the front room. The common people live in the kitchen, and you must watch the back door and the alley entries if you would know *how* they live. I have seen meat prepared for the table after the maggots of the blow-fly had been removed, and it was done as unconcernedly as a housewife might remove aphids from a lettuce leaf. One of my deputies tells of eating (or trying to eat) at a farmhouse where flies swarmed in the kitchen. The cup in which the coffee was served had a peculiar speckled appearance, which he took for some singular and grotesque decoration, until, to his horror, the adorning specks began to dissolve around the rim of the coffee.

FLIES ON A WINDOW

One warm October day, while driving through the hills of southern Indiana, I became thirsty, and stopped to secure water at a farmhouse. The woman told me I might have a drink, but that I would "have to draw it." She led the way through a kitchen literally alive with flies, and took me to a well of ancient pattern. When I had emptied several cups of what seemed to be good water, I thanked the mistress, and spoke a word of appreciation of the cool drink. Imagine my feelings when she replied that she was glad I liked it; she liked it herself, but "them hereabouts won't use it, 'cause we had so much sickness in the family and three deaths from typhoid." With such ignorance, do you wonder that typhoid fever costs America more than three million dollars every year?

In most Latin countries the outside doors and windows are heavily barred. The principal attention that is given the criminal is to keep him out of the house. Are we not doing the same thing with

the fly when we depend on wire-cloth screens to save our dinners from pollution? Isn't it about time that the American people woke up to the seriousness of this matter, and stopped begging the question by merely screening their houses?

The house-fly and its associates breed in filth of all sorts,—stable manure, open vaults, neglected garbage, exposed flesh, such as cholera hogs, etc. The eggs are laid in this food material, the young hatch, and for a variable number of days are active, feeding larva—maggots; when full-grown, they enter a resting stage. This period is also of variable length, but eventually the adult fly emerges.

From even a casual consideration of this life history it will be seen that the salient point of attack against this pest is at the larval, or helpless stage. Flies must lay their eggs on material which is suitable food for the young, or they would die out in a single generation. They must have filth in which to breed, and as long as we provide them with plenty of it, we are going to continue to spread typhoid fever and other intestinal diseases broadcast over the land.

The measures for the control of this insect are comparatively simple. And this fact of their simplicity is one of the reasons why it is difficult to institute remedial reforms. The average citizen has no faith in things which he can readily understand, and we can not deny that there is a wide-spread desire on the part of the public to be fooled. The economic entomologists of the country have known for years that the most effective spray for the control of the San Jose scale is a simple mixture of lime and sulphur boiled for one or two hours. This information has been spread broadcast, and yet the public is so intent on being fooled that the manufacture of quack spray solutions was never in more thriving condition than it is at present.

Simple decent cleanliness about the stable, the open vault, and the garbage can will do wonders for the control of the fly. There is no legerdemain about the matter at all.

Last winter a farmer sent for me to come to his place and tell him how to get rid of a pest of flies. Such a call in the *winter* was unusual, and I investigated with considerable interest. It was reported that the attic was "alive with flies, and they were breeding there." I found that the number of the flies had *not* been exaggerated. The windows of

(Concluded on page 440)

THE SPONTANEITY OF GOD'S GREAT OUT-OF-DOORS.

GEORGE WHARTON JAMES.

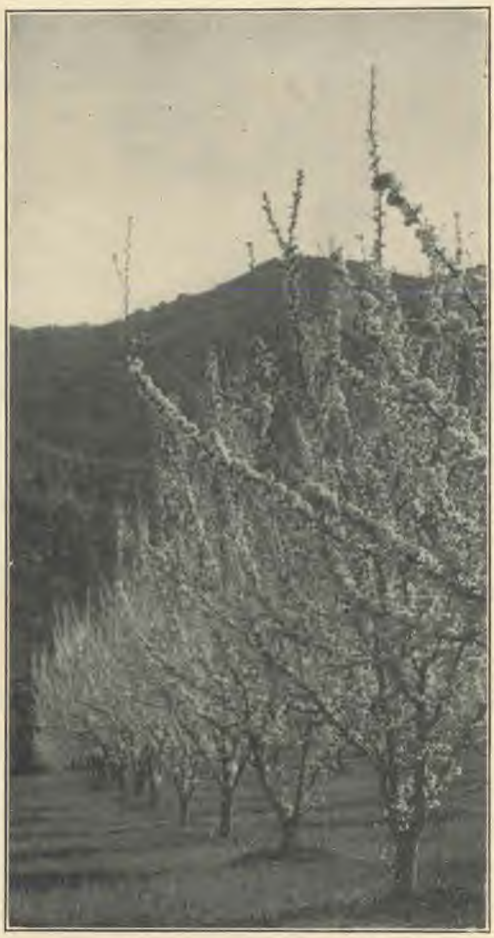
ALMOND TREES IN BLOOM

IT is a California spring-time. Every time I go out-of-doors, I am impressed as never before with the spontaneity of natural things. How the grass grows up, each blade cleaving the earth, uniting with every other blade to cover the bare places with richest green! Buds shoot forth from every branch. A few weeks ago the almond trees were in bloom, and my solitary almond tree shed glory and perfume on the whole area of our home place. White and pink covered the bare, almost black, branches, and it was veritably a glorious sight. The bees came and hummed their warm approval as they sipped the sweets of the blossoms, the birds came and fed upon them, and when the chickens were released from their yard each night, they picked up with avidity the petals that had fallen during the day. What a spontaneous exhibition of beauty it was!

Then the peach and plum trees began to bloom, and the prunes, and now the oranges are commanding the scene. And what a sight is an orange orchard in full bloom! The golden fruit is not yet picked, in many cases, and the trees are laden with their rich and luscious balls; the deep green of the old growth of leaves richly sets off the lighter green of

Spontaneity and harmony, what a glorious combination! What a revelation and incentive to man! Mankind being a part of this great out-of-doors, may study its ways, and learn therefrom. Yet too often mankind is too affected, too civilized, too far away from nature, to be spontaneous, easy, frank. We grow up unnatural, artificial, unspontaneous, affected; we say this is civilization. See men and women as they follow the fashions. How different the results from the harmony of the flowers.

the new growth; and now, the waxen white blossoms are swiftly bursting into being in an extravagant profusion that fills the eye with delight, and the nostrils with a ravishing perfume, and at the same time covers the ground beneath with a white shower like snow. Stand on Mount Rubidoux, in Riverside, and look out over the hundreds, nay, thousands, of acres of orange trees there spread out. It is a rich deep-green sea, with ten thousand times ten thousand golden globes, charged with nectar, catching and reflecting the glowing sunlight, nestling in its rhythmic waves, while as the wind plays with the leaves, the whole sea seems to be lashed into exquisite and fragrant foam by the presence of the blossoms.



PRUNE ORCHARD IN BLOSSOM, SANTA CLARA COUNTY, CALIFORNIA

The eucalyptus trees are also in bloom, and what a rich beauty is developed as their tiny cups burst open and reveal a creamy white fluff-ball, which expands and expands until it is a beautiful cluster of fairy balls.

A few weeks ago I pruned a young apricot tree and several vines, and they looked as bare and barren and useless as a deserted bird's-nest. But to-day the apricot is covered with buds and tiny leaves, and the dried-up stalks of the vine are bursting into rich green which will soon enswathe them with a wealth of color of which their previous appearance gave not the slightest promise.

How spontaneous all these expressions of growth and expansion are! How each bud comes forth in response to the call it hears, the impulse it feels, and yet how wonderfully harmonious is this spontaneity! Here is a picture of an Oregon apple orchard in full bloom, and to-day, in my own yard, the crab-apple tree is clothed in its perfect wealth of blossoms. In April the whole Santa Clara Valley is converted into a bower of beauty by the blossoms on the million or more prune trees that find life and rich nourishment there. Thousands of people every year assemble on the slopes of the hills overlooking this far-famed valley, at Saratoga Springs, that they may enjoy this feast of blossoms. Millions of millions of them, rods, acres, miles, bathed in exquisite beauty and redolent with a fragrance that intoxicates and rejuvenates without any after ill-effect.

Every poor person may enjoy this and similar scenes to the full, just as well as the rich — nay, indeed, more, for he need

have none of the care attendant upon the possession of the property; and yet a little of such property does harm to no man. There are scores of poor men in Southern California who own little homes,— clerks, conductors, motor-men, salesmen, mechanics, laborers even, whose house gables are covered with a wealth of floral beauty, spontaneous and glorious in its exuberant growth.

Here are wistaria and gold-of-Ophir roses, a combination as delicious to the eye as it is fragrant to the senses. Whence came this delicately beautiful Japanese flower? Who originated it? Surely it must be one of the sweet thoughts of God, for man's benefit visualized and given to him while here on earth, that he may dream of the life beyond.

EUCALYPTUS BLOSSOMS

Every blossom is perfect; yet each one is free and independent. It grew — sprang forth spontaneously in answer to the vehement demand of its whole nature. And yet you may sit and study the whole of it,— every blossom, every leaf, every pendant cluster,— for an hour, a day, a week, and I defy you to find one discordant note of shape or color in it all.

Spontaneity and harmony — what a glorious combination! What a revelation and incitement to man!

See men and women as they follow the fashions. How different the results from the spontaneous harmony of the flowers, of all God's great out-of-doors. Incongruity and folly mark the dress from skin to exterior, from shoes to hats,— too close underwear, restricting corsets, tight dresses, tight and cruelly high-heeled shoes, uncomfortable collars, sleeves that restrict normal action of the arms, and hats that seem to be the invention of escaped lunatics. And as for the methods of hair-dressing that introduce great mattresses of foreign hair to make untidy haymows of a woman's queenly head, I would imprison for life the wantons who started such fashions, and pillory the foolish girls who follow them.

And men's dress is not much better. The padded shoulders of the coats, the stiff-bosomed shirts, the tight, patent-leather shoes, the creased trousers, the absurd high-necked collars, the sham and never-deceptive cuffs, the high silk hat, or the stiff and unventilated derby, are all proof of man's lack of spontaneity and harmony in dress.

How hearty, spontaneous, and direct is the sun, and the rain, and the snow, and the wind — rude, some people might call them. When the time comes, the sun appears in full glory, without re-

serve, without apology, without any blowing of trumpets. Browning expresses in his "Pippa Passes" this spontaneous effect of sunrise. It is one of the wonderful descriptions in literature: —

"Day!
Faster and more fast,
O'er night's brim, day boils at last:
Boils, pure gold, o'er the cloud-cup's brim
Where spurting and suppressed it lay,
For not a froth-flake touched the rim
Of yonder gap in the solid gray
Of the eastern cloud, an hour away;
But forth one wavelet, then another, curled,
Till the whole sunrise, not to be suppressed,
Rose, reddened, and its seething breast
Flickered in bounds, grew gold, then overflowed the world."

equal spontaneity. How beautiful is a snow-storm,— these flowers of the sky falling in their feathery whiteness and lightness, and covering everything with their spotless purity! Old tin cans, garbage piles, manure heaps, rotting carrion, alike are covered and made white, just as readily as the greenest lawn or most carefully cultivated field. O the beautiful spontaneity of the snow!

And the wind! It blows everywhere, catches everything, tosses the curl of the maiden, and blows the shaggy hair of the drunken tramp. It brings freshness, sweetness, and purification into every spot which it touches, and it is not a

AN OREGON APPLE ORCHARD IN FULL BLOOM

And the rain, how it falls! Day or night, when the conditions are right, it begins to descend, and either gently or tumultuously and peltingly it continues, washing the atmosphere and cooling it, cleansing the dust-laden trees, slacking the dust on the roads, washing the streets, vivifying the lawns and flower beds, supplying needed nourishment for vegetables and grains whether in the small gardens of the poor or the immense ranches of the rich, and bringing life and vigor everywhere. How spontaneous, frank, generous, open, it all is!

And the snow! It comes down in respecter either of persons or of places.

And the odors of the flowers! How they fill the air with their rich fragrance, and the beggar may enjoy them as much as the millionaire, the illiterate as the learned, the boor as the refined. In March, Southern California is one vast perfumery. The orange blossoms are on the trees, and the rich and fragrant odor makes everything delicious. Go where you will, you can not escape the fragrance, it is so spontaneous, so generous, so insistent. Mankind is a part of this great out-of-doors — a thought of God who created it. He, possessing the power

of reason, may study its ways, its methods, and learn therefrom. All through nature this spontaneous expression of life is found. Everything springs gladly, readily, joyously to do its allotted work. The sun springs upon the world each morning, and delights in flooding the haunts of men, birds, beasts, and animals with light and warmth; the water flows freely, spontaneously, readily, wherever a way is made for it; the wind seeks out every nook and cranny, every corner and hidden place, and brings its purifying influence there; the rain falls on the just and the unjust with insistent freedom; and the snow alights alike on the hovel and the mansion, the violet and the towering sequoia; the grass grows as spontaneously for a peasant as for a king, and feeds alike the squirrel and the cow. Each does its best, readily, freely, spontaneously, without holding back, and in so doing there is a harmony, a perfection of service, that benefits and blesses the world.

WISTARIA AND ROSES
A poor man's cottage in Southern California

Too often the trouble with mankind is that they are too affected, too civilized, too far away from nature to be spontaneous, easy, frank. From the hour of birth we restrain, restrict, confine, suppress, change, alter, instead of seeking to guide the natural spontaneity of life into God-ordered channels. The result is we grow up unnatural, artificial, *un*-spontaneous, affected. We say this is civilization, education, refinement. I do not believe it to be the *true* civilization, the *true* education, the *true* refinement; but a mistaken, a wrong notion of civilization, education, refinement, that takes away God-given standards and substitutes those of men. The aim of one's life should be to find God's standards and conform to them, regardless of meeting the false and harmful standards of men. We should come into the lives of our fellows with the spontaneity of the sunshine, as does the rain, the good, that God bestows alike upon the just and the unjust. In every thought and every act it should be one's aim to be spontaneous, acting out not the selfish, evil, and human, but the unselfish, noble, and divine.

There is more to this spontaneity of nature than most of us perceive. Not one man or woman in a million is spontaneous. We dare not be. We are afraid. We have been trained to be afraid. We live unnaturally because we have not so established the principles of life, so crystallized our thoughts, that we dare allow our actions to spring into light unexamined, unstudied, untrimmed. What is the secret of Roosevelt's great popularity, in spite of the intense antagonisms he creates? Is it not in the honest, simple spontaneity of his life? He has laid down for himself the definite paths his life is to follow, and without delay, without fear, without question,

he hurls the thoughts of his inner self outward, regardless of the consequences. This is what I mean by spontaneity in a man's life. Charles Wagner, the author of "The Simple Life," is another specimen of this spontaneous life. I watched him closely for two days. I laid traps for him with studied questions. I wanted to see if he would "trim" or "straddle," or "fence." Never for a moment did he hesitate. His thought in every case came forth as spontaneous as the bubbling water rushes from the spring. Here is an illustration: One of the first receptions tendered him was at the palace of a society leader in New York. At dinner, all the invited guests were in full conventional costume, the plate was elaborate enough for a prince's ransom, and the flowers would have brought joy to the hearts of the inmates of a county hospital. A velvet-clad "flunky" stood behind the chair of each guest, for money was no object to this lady who wished to do honor to one upon whom the president had smiled. As the dinner progressed, the intelligent hostess turned to the guest of honor and asked, in line with some phase of the conversation, "But pray, Mr. Wagner, how would you apply the principles of the simple life to such a home as mine?" Like a flash of lightning the answer came, yet as spontaneous as a burst of sunshine: "Well, madam, I see standing behind each of our chairs these brothers of ours who are not allowed to eat with us, who do not join in the conversation. I suppose the first thing I should do would be to say, 'Come, brothers, pull up your chairs, and eat and talk and share with us these good gifts of God.'"

Photo by R. S. Crandall

SUNRISE IN MINNESOTA

Would, could, dare the ordinary conventional, careful, conservative, orthodox man have given such an answer? He would not have dreamed of such a reply. In conventional phrase he would have uttered some vague platitude that would have meant nothing, and the world of inequality and injustice would have gone on the same as before.

O for the hearty, responsive, great-

(*Concluded on page 440*)

Hot-Weather Suggestions

L. J. Otis, M. D.

THE hot season is generally regarded with dread, — as an oppressive season, one that we would gladly escape. Heat, during the hot season at least, is considered a vital depressant. Yet heat and moisture are the two essential requisites to growth and vitality, as may be seen by observing vegetation during the hot season. Heat is a form of energy, and from it other forms of energy may be obtained. And whether this energy comes from the furnace under the steam boiler, or from the heat of the sun, the same law holds true.

But while the human body requires energy, it has no means of procuring that energy direct from the sun or furnace. The body is dependent, for the most part, on the foods which have received their stored-up energy from the sun. Taking stored-up energy in the shape of food, the body transforms it back into heat, motion, and growth. By this process the heat of summer is indirectly utilized.

The hot weather will not hurt you if you will observe certain precautions: —

Avoid heating foods, wear cool clothing, and exclude germs from your food.

Aside from this, there is a certain direct utilization of the heat of the sun, in that heat dissipation, or loss from the body, goes on more slowly when the surrounding air is hot.

Since the body does not require the same amount of internal heat during warm weather that it does when the temperature of the air is low, we have a suggestion as to how the production of this internal heat may be lessened. Some foods produce more heat than others. Such food, proper in cold weather, should be limited in warm weather.

The foods that produce the least heat, we find from investigation, are those that nature provides for the warm season, as fruits, vegetables, and green, or garden, produce. With these and a limited amount of grains, as wheat and rice, we have an ideal warm-weather diet.

With such a diet and an abundance of good soft water, one may so reduce internal heat production that there will be only slight depression because of the external heat.

Clothing should be loose and open, and in as few layers as possible, to facil-

itate the elimination of heat from the skin. Every layer of clothing adds one layer of non-conducting air.

There are other dangers from hot weather, which should receive attention; for though they are not always apparent, they are more dangerous than the excessive oppression and inconvenience of the heat during the hottest days. With the growth of vegetable life, we have the growth of germs and bacteria. These grow fastest where they have heat, food, and moisture. And during the hot weather, these conditions may be found in nearly any pantry.

Most food is rendered sterile by cooking; when it is once sterile, we may secure ourselves from the troubles bacteria would cause, for by a little care we may keep them out. Germs have no wings; and since they are heavier than air, they have no way of multiplying in food unless something carries them there. In doing this the common house-fly is without doubt the greatest offender. There is probably no other agency that is responsible for spreading so many germs as is the house-fly.

The mosquito is considered responsible for spreading the germs of yellow fever and malaria. The flea is known to be the only means of carrying the germs of bubonic plague from the infected rat to man. But in the house-fly we have a means of spreading not only one or two, but a dozen or more diseases, all of them more or less fatal.

Doubtless you have all seen instances of typhoid fever, cholera infantum, or dysentery being spread in this way. The fly enters the sick-room, or perhaps visits the place where the discharges from the sick are thrown. It gathers germs by the thousands (the estimate is placed quite conservatively at one hundred thousand), and then takes a bee-line for neighboring kitchen, dining-room, or pantry. Here it spreads its load of disease-producing germs over the food of the family, over everything that does not happen to be screened or otherwise shut away from its contamination.

To complete these warm-weather suggestions we should add: Protect all food and drink from such sources of contamination by cleaning up all rubbish and manure heaps that might become the breeding-place of flies; and provide good fly screens, also a refrigerator, which is quite essential in order to retard the growth of germs in food. All fresh fruit should be washed thoroughly or pared before eating. In doing so we avoid the germs on the skins of fruit, some of which sometimes cause very serious bowel trouble.

Camping-Out Is Now Made Easy for the Unaccustomed

Herbert M. Lome

WHEN in the parks branches begin to clothe themselves in hazy and tender green; when verdant spear points and spike heads shoot up around tree roots on hedge slopes and in meadows; when suburban dwellers hear the call of northing birds; when the advertising columns of newspapers and the windows of sporting-goods stores are full of suggestive hints about the oncoming out-of-door season, then it is that the out-of-door instincts of the man condemned to an indoor life begin to assert themselves.

Cramped in office, store, or factory, such a man, listening to the call of the wild, waxes restless. With the coming of the buds and birds, he chafes at business restraints, finds himself musing on the possibilities of canoe, camera, or yacht, and determines to go camping during his vacation time.

Now a vacation, to be worthy of its name, should include conditions not found in every-day life. Absolute change is a holiday necessity, too often overlooked by the holiday maker. Hence it is that a few weeks spent in a properly arranged and located camp constitute an ideal form of recreation for the city man and his family.

Camps may be divided into two classes: the first of which includes those that are pitched far away from crowds and cities, that call for a pretty lavish expenditure of time and money, and are only suitable for persons of strong and trained physique.

The second class consists of camps that are fitted for the man who possesses little or no knowledge of woodcraft,

WALL-TENTS, WITH OVERHANGINGS
This is an ideal form of canvas home

muscles of the usual sort, and modest means, and who wishes his wife and children to enjoy with him the benefits of a temporary return to the life primitive.

This article will be devoted to camps of this last-named sort, and it will attempt to give the tyro such hints as will result in his obtaining that comfort, enjoyment, and health that a properly located and conducted camp stands ready to supply in abundance.

GOOD CAMP SITE
There is wood and water in abundance

Camping-out being, as intimated, a return to the life simple, it follows that the first thing to be done is to learn the requisites of such a life. If we do this and act upon the knowledge gained, we shall have solved no small portion of the problems which confront the novice. Four things are essential to the camper-out, whether hundreds of miles from the rough edge of civilization, or in touch with the sights and sounds of the metropolis. These essentials are shelter, garments, food, and sleeping accommodations; and within certain limits, the camper on the fringe of the crowded city needs to be as careful in regard to these requisites as does the hunter or explorer in uninhabited regions. Many a camp that, duly arranged and "policed," would have yielded a goodly fund of enjoyment, has been abandoned after a few days spent in it, merely because those who were charged with its equipment were inexperienced, careless, or stupid. However, the preparation for comfort in camp has been reduced to a fine art by those whose business it is to look after the interests of the temporary dweller in tents. But of this we shall speak later. Let us consider the essentials in the order just named.

Shelter from the inclement weather, prying eyes, and "skeeters," is usually afforded by a tent. It is true that some summer "camps" are of a permanent nature, and in such instances they may be built of logs, or may take the form of one of those portable houses that have come into fashion of late years. But after all, a tent seems to be the most convenient, as it is certainly the most economical of shelters for the camper. It follows, then, that the selection of a canvas home is an important matter, inasmuch as a good deal of incidental enjoyment depends upon it and the accommodation which it affords.

According to the experience of the

writer, a wall-tent of waterproof material or with a double layer of canvas for the roof, is the most convenient for the amateur camper, provided, always, that transportation to the camping-ground is easy, and that the camp itself is to last for some weeks. Circumstances alter cases, however, and under certain conditions a tent other than a "wall" may be selected. But where the party is of the family sort, a wall-tent is undoubtedly the most advantageous.

A TENT IN SUN AND SHADE

Such a tent, measuring eight by twelve feet, will shelter and furnish sleeping-room for four persons. Clothing and some of the more valuable stores may be kept inside. It forms a convenient dining-room for at least six persons, and if the camping-ground itself is devoid of sheltering trees, the wide open flaps will afford the needed shade.

Where a number of persons desire to live and eat under the same canvas, a Sibley tent, such as is used in the United States army, can be purchased second-hand at a reasonable rate from a dealer in "condemned" government stores. Such dealers are to be found in nearly all the large cities, and in addition to tents, the camper can very often pick up at their establishments odds and ends which he will find very useful during his return to nature.

It should be said, in this connection, that the fewer persons who sleep in the tent, the better. This remark applies, of course, to a bachelor camping-out party, in which there is usually a tendency to crowd things in a literal as well as a metaphorical sense. The reason for this caution is that at night the campers are apt to lace the flaps of the tent and in other ways to make the dwelling unduly "snug," thus, to a very great extent, offsetting the good influences of the daylight hours of the camp. Of course, if the campers are of the fresh-air sort, this warning is hardly needed. But in any event, it is well to see that the sleeping accommodations in the main tent are restricted to not more than four persons; the others of the party should if possible, occupy individual quarters.

Let the floor of the tent be covered with a platform of wood about four inches in height.

There is rarely any occasion to dig a trench round the tent in order to carry off rainfall; for rains of the "heavens open" sort are infrequent in summer, and if the camp is properly pitched and the soil porous as it should be, an ordinary downpour disappears very quickly.

The Care of the Baby

BABIES do not die: they are killed. Rarely is a babe born without ample vitality, if properly husbanded, to carry it successfully through all the dangers of infancy and childhood.

It is not a case of insufficient vitality, but of insufficient care, when "one of these little ones" dies. They die of neglect, the result, most often, of the fact that girls take on the responsibility of motherhood without a proper preparation. They have not been taught even the essentials of child hygiene. It is not their fault entirely, for they are, at least most of them, totally ignorant of the need for any education in this line.

The summer months yield by far the greatest harvest of baby funerals, almost entirely from bowel troubles, and that the result of poor feeding. These are not the babies who get mother's milk, not those who get certified or even Pasteurized milk, but those that get the common street milk, raw, and standing for several hours perhaps in a warm room, to be fed to the babe by means of a bottle and a nipple none too clean.

It is where such conditions as these prevail that we have the greatest number of deaths. It is here that life is the cheapest. It is here that there is a crying need for a crusade for better knowledge on the part of the mother.

When we obtain a valuable animal to rear, or even a valuable plant, if we are wise, we study carefully the laws governing the growth of the animal or the plant. We know that careless, haphazard treatment will result in imperfect growth or in death.

Do we do as much when a valuable human life is entrusted to our care? Do we attempt to learn from those who have made it a study, how to care for baby? or do we trust to the general information or *mis*information current among our neighbors?

There are now mothers' manuals, giving careful information regarding the care of the infant; there are physicians who make a specialty of the care of infants and children, who will be glad to render service where needed; in the thickly settled districts there are visiting nurses and settlement workers who seek the opportunity to give instruction that will save baby lives; there are milk depots where pure milk is served at moderate rates, and where instruction is given regarding the care of infants. And yet with all of these, there are thousands of mothers who do not have the help they need for the proper care of their children; this, notwithstanding the fact that in nearly every city of note there is being conducted a crusade in favor of clean milk for babies, dairies are being compelled to clean up, arrangements are made with responsible men to furnish milk above reproach, which is "certified" and sold at a higher price that seems beyond the purse of the very poor. But after all, it is not the dirt of the dairies altogether, but the dirt that gets into the milk after it reaches the home that oftenest kills the baby; and it is here that the campaign of education must do its most efficient work.

We give, on the accompanying page, a few simple rules for the care of the baby, prepared by one of the committees working for the saving of baby life.

THE BEST FOOD FOR BABY

NURSE your baby for the first twelve months. If you do, its chances for life and health will be ten times greater than the chances of a bottle-fed baby. Never wean a baby less than a year old except at the doctor's advice. Do not wean baby in hot weather.

REGULARITY

Nurse your baby at regular times, but never more than once in two hours. Baby should sleep six hours or more each night without interruption. Wake baby promptly if asleep when the regular time for nursing comes. Give baby all the cool boiled water it wants. Baby may cry because you feed it too often and too much; because it wants water; because it aches from too much handling; because it is too hot — flannel shirts in summer bring prickly heat.

SOURCE OF MILK

If you think you can not nurse your baby enough, or at all, consult a doctor before making any change. The question is too serious for you to decide by yourself. Buy good, clean milk, and prepare it just as the doctor directs, or get it already prepared from the milk stations. Keep the milk cold, covered, and clean. Put it in clean bottles. Never use a feeding-bottle with a tube on it. Never give baby cheap, dirty milk, or coffee, beer, sirups, or solid food.

CLOTHING

In hot weather one thin piece is enough. Baby feels heat more than you. Keep baby cool; it will not catch cold.

BATHING

Wash baby all over every morning. In hot weather sponge it often with cool water.

FRESH AIR

Keep the windows open day and night. In summer sleep on the roof or in the yard with baby, if you can. Baby should sleep alone, and in the coolest, quietest room. Keep baby out of the kitchen. Keep flies out of the house, and protect baby from them. Go to the parks as often as you can, even for a few moments.

IF BABY IS SICK

If baby is sick, vomits or has diarrhea, stop feeding altogether, give it water instead, and take it to your doctor or to some children's hospital or dispensary.

The Potato

George E. Cornforth


WHITE HOUSE, EAST ENTRANCE

THE potato is the most valuable and most used of all vegetables. It has come to be a staple article of diet, the potato, with meat and bread and butter, constituting the diet of many people. The potato makes a valuable addition to a meat diet, balancing with its carbohydrate the excess of proteid in the meat, and by its mineral matter counteracting the tendency to an accumulation of waste matters in the system, caused by a meat diet.

The potato consists of starch cells and a juice which holds in solution nitrogenous matter and mineral matter, mostly salts of potash. The part of the potato nearest the skin is richest in nitrogenous and mineral matter. For this reason, when potatoes are peeled, the amount of the potato removed should be as thin as possible. The nitrogenous and mineral matter readily dissolve in water, and therefore it is not well to allow potatoes to stand for a long time in water after they have been peeled and before cooking. If potatoes are boiled in their skins, steamed, or baked, less will be lost than when they are peeled before boiling.

When the potato is cooked, the nitrogenous matter is coagulated, the starch granules take up the water, and swell and burst the cells; the cohesion between the cells is broken up, and the potato becomes "mealy." The ideal in cooking the potato is to render it as mealy as may be and to lose as little as possible of its nutritive constituents. A mealy potato is more easily digested than bread. If potatoes are boiled with their skins off, it will be a saving of nutritive material to use the water in which they are boiled in making gravy or soup. Young potatoes contain a larger percentage of proteid, and are more juicy than mature potatoes. This proteid, being coagulated when cooked, holds together, and the potato is more waxy. For this reason mature potatoes are more wholesome than young ones.

Many cooks content themselves with boiling, baking, and frying the potato day after day, but there is a great variety of ways in which this common vegetable may be prepared. Why not make use of the many ways of cooking this everyday vegetable, and thus add to the variety of the meals and give zest to the appetite?

Recipes

Baked Potatoes

Choose medium-sized, smooth potatoes. Wash and scrub them with a stiff vegetable brush till they are perfectly clean, clean enough so that the skins might be eaten, if desired. If any dirt adheres to the skin so that a brush will not remove it, scrape it off with a knife. Dry the potatoes, then bake them in a moderately hot oven till they will yield to the pressure of the fingers. Baked potatoes are best served as soon as they are done.

Boiled Potatoes in "Jackets"

Prepare the potatoes as for baking, choosing potatoes of uniform size. Put them into just sufficient boiling water to cook them, and boil them till they are easily pierced with a fork, but not till they begin to fall to pieces. Drain them thoroughly. Place the kettle on the back of the stove, covering the potatoes with a cloth, and allow the potatoes to dry for a few moments.

Boiled Potatoes

Wash the potatoes. Peel them, removing as thin a peeling as possible, and drop them into cold water. (The skin of new potatoes may be scrubbed or scraped off instead of peeling them.) If the potatoes are not of uniform size, cut the large ones in two. Follow the directions for cooking "Boiled Potatoes in 'Jackets.'"

Steamed Potatoes

Steaming potatoes either with or without the skins is a better way of cooking them than boiling. Prepare the potatoes as in either of the preceding recipes. Place them in a steamer over boiling water, and steam them till tender, replenishing the water if necessary with boiling water so as to keep the potatoes cooking continuously.

Mashed Potatoes

Prepare the potatoes as for boiled potatoes. Boil or steam them till they are readily pierced with a fork but not overdone. After they have been boiled, drain them thoroughly. Rub them through a heated colander into a hot dish. Season with salt in the proportion of one teaspoonful to one and one-half quarts of potato and sufficient hot cream to make them of the proper consistency. Beat with a potato masher till light and creamy. Serve at once. If allowed to stand, they will become heavy and hard.

Potatoes in the Half Shell

Prepare and bake large potatoes according to the recipe for "Baked Potatoes." When done, cut them in two the longest and broadest way. Carefully scrape out the inside so as not to break the skin. Rub the potato through a colander. Season with salt, hot cream, and beaten egg white. Beat till light and creamy. Refill the skins. Place them in a baking pan, and brown them in the oven. Serve at once. Cottage cheese or a little beaten whole egg or both may be beaten into the potato before refilling the skins, if desired.

Creamed Potato Balls

Peel large potatoes, and drop them into cold water. Then cut balls from them with a cutter such as is shown in the illustration. Steam the balls, or boil them in as little water as possible without scorching them, adding salt just before they are done, and drain them. Put them into a cream sauce made as follows: —

Cream Sauce

1½ cups milk
½ cup cream
¼ cup flour
½ teaspoonful salt

Heat the milk and cream in a double boiler. Thicken with the flour stirred smooth with a little cold milk. Add the salt. Instead of milk and cream, one pint of milk might be used and one or two tablespoonfuls of vegetable oil added to the sauce.

(The most convenient way to stir flour smooth with a liquid is to put the flour in a dish large enough so that a batter whip may be used in stirring it. Add the full quantity of liquid required to stir up the flour and stir quickly with the batter whip. If there ever is any difficulty in getting the flour stirred smooth, an egg beater will beat the lumps out of the mixture.)

The potatoes may be cut into one-half-inch dice, if desired, instead of cutting them into balls with a vegetable cutter.

Potato Cakes — No. 1

1 pt. mashed potato (fresh or left over)
1 egg
Milk or cream to moisten

Beat the egg well. Add it to the mashed

ILLUSTRATING THE CUTTING OF POTATO BALLS

ILLUSTRATING THE MAKING OF CROQUETTES

A dish of potato, a dish of egg in which to dip the potato, a plate of crumbs, a croquette mold containing a croquette ready to be molded, and a conical- and a cylinder-shaped croquette

potato. Add sufficient milk or cream to make the potato soft enough to be put upon an oiled pan with a spoon. Bake till nicely browned.

Potato Cakes — No. 2

1 pt. potato (fresh or left over)
1 egg
Milk or cream
Flour

Add the well-beaten egg to the potato, and milk enough to make the potato just a little softer than in the preceding recipe. Then add flour enough to make the potato stiff enough to be formed into cakes with the hands, but quite soft. Form into round, flat cakes. Brush them over with cream. Bake till nicely browned. When the quantity of milk and flour is rightly proportioned, these will remind one of soda biscuit.

Potato Croquettes

1 pt. mashed potato (fresh or left over)
1 egg
Milk or cream

Add the well-beaten egg to the potato, and sufficient milk or cream to make the potato as soft as can be shaped into balls with the hands. (If fresh mashed potato is used, it may not be necessary to add any milk or cream.) Beat one egg with one tablespoonful of water and a pinch of salt. Dip a ball of the potato into the egg, then roll it in zwieback crumbs. Then place the ball in a croquette mold. Close the mold and tap the closed end of it on the table in such a way as to force the contents closely into the closed end of the mold. Smooth the open end. Open the mold and remove the croquette. Place the croquettes on an oiled pan and bake fifteen minutes in a hot oven. Serve with cream sauce or egg sauce made by adding one chopped hard-boiled egg to one pint of cream sauce.

Escalloped Potato

Put layers of sliced raw potatoes in a baking pan, dredging each layer with flour. For one quart of potatoes use one pint of milk and cream (one fourth or one third cream). Heat the milk and cream to boiling in a double boiler, dissolve in it one teaspoonful of salt, pour it over the potatoes. Bake till the potatoes are tender and nicely browned. Instead of milk and cream all milk may be used with one or two tablespoonfuls of vegetable oil.

Stewed Potato

Run cold boiled or baked potatoes through a food chopper. Put them into a double boiler. Add salt and sufficient milk or part milk and part cream to nearly cover the potatoes. Cook in the double boiler from one-half hour to one hour.

Savory Potatoes

Slice a small onion in the bottom of a baking pan, then half fill the pan with sliced raw potatoes. Sprinkle sage over the potatoes. Then fill the pan with sliced raw potatoes. For one quart of sliced potatoes use one pint of boiling water. Add to the water one teaspoonful of salt and one tablespoonful of vegetable oil. Pour this over the potatoes. Bake till the potatoes are tender and nicely browned. Left-over baked potatoes are nice prepared in this manner.

MASHED POTATO BARS AND POTATO CAKES NOS. 1 AND 2

Nut French Potatoes

Cut peeled raw potatoes in strips lengthwise. Put one quart of them into a baking pan, and pour over them one quart of boiling water in which one teaspoonful of salt and one tablespoonful of peanut butter have been dissolved. Bake them in the oven till the potatoes are tender and nicely browned.

Mashed Potato Bars (see illustration)

When you have mashed potato left over, pack it in an oiled bread tin. When cold, remove the potato from the tin, keeping it whole. Cut it into three-fourth-inch slices and the slices into three-fourth-inch bars. Egg and crumb the bars. Place them on an oiled pan and bake them a few minutes in a hot oven. Serve with cream sauce.

Browned Potatoes

Peel rather small potatoes of uniform size. Boil or steam them fifteen or twenty minutes or till nearly done. Drain them (if boiled). Place them on an oiled baking pan. Brush them over with salted cream or cream sauce, and brown in the oven. Serve with cream sauce.

Left-over boiled, steamed, or baked potatoes may be sliced into an oiled pan, brushed over with cream or cream sauce, and browned in the oven. Left-over mashed potato may be packed in an oiled bread tin, sliced when cold, put onto an oiled pan, brushed with cream, and browned in the oven.

Glazed Potatoes

Prepare the potatoes as in the preceding recipe, and instead of brushing them over with cream sauce, use beaten egg yolk to which a little milk or water and salt have been added. Then bake till lightly browned. Serve with cream sauce.

(A flat paint brush is a handy article to have in the kitchen to use in oiling pans, brushing over potatoes, or buttering bread for sandwiches, having the butter warm but not melted.)

Hashed Brown Potatoes

Chop cold boiled potatoes. Spread a thin layer in the bottom of an oiled pan. Brush over with salted cream or cream sauce, and brown in the oven.

Sliced Potatoes in Cream

Put one quart of sliced cold boiled or baked potatoes in a baking pan. Pour over them one pint of part milk and cream, to which one teaspoonful of salt has been added, and bake till well heated through and nicely browned on top.

Potato Puff

Use fresh mashed or left-over mashed potato. To one pint of the potato add one-half cup of cream or milk, a little salt, and one egg yolk. Beat well together. Then fold in the stiffly beaten white. Put into an oiled pan and bake till heated through and lightly browned. Serve at once.

Cream Baked Potatoes

Use either fresh boiled or left-over boiled or baked potatoes. Peel them if baked, and put them into a pan. Add sufficient salted cream to nearly cover them. Bake till the cream is nearly absorbed.

Lyonnaise Potatoes

Cook one chopped onion in a little oil till it begins to turn yellow. Sprinkle this onion on the bottom of an oiled baking pan. Put into the pan a layer of diced cold boiled potatoes. Brush them over with salted cream or thin cream sauce. Brown in a hot oven. Sprinkle with chopped parsley, and serve.

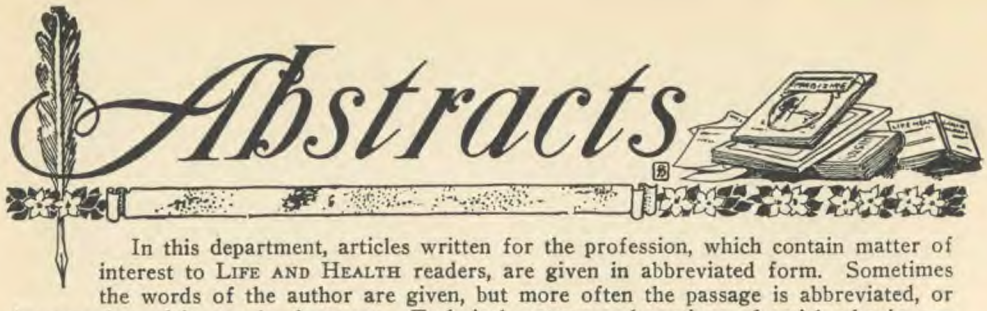
Chipped Potatoes

Cut potatoes in pieces resembling the sections of an orange. Partially boil or steam them. Then put them into an oiled baking pan. Brush them over with salted cream or thin cream sauce and brown them in the oven.

Potato Bird's Nests

With a pastry tube, form nests of mashed potato on an oiled baking pan. Brown them in the oven. Fill them with hot, seasoned green peas, and serve at once.

Nearly all the directions for the use of Irish potatoes may be followed in cooking sweet potatoes.



In this department, articles written for the profession, which contain matter of interest to LIFE AND HEALTH readers, are given in abbreviated form. Sometimes the words of the author are given, but more often the passage is abbreviated, or else paraphrased in popular language. Technical matters and portions of articles having no popular interest are omitted. Give the authors credit for whatever is good, and blame "us" for the rest.

Fresh Air in the Treatment of Surgical Tuberculosis

THE decided benefit derived from the continued life in the fresh air in the treatment of pulmonary tuberculosis has been realized in this country for many years; but it is only in the last few years that surgeons have begun to practise the same treatment for the improvement of those suffering from tuberculosis of the joints, bones, and glands.

And there is no disease in which the constitutional and local must work so truly hand in hand as in surgical tuberculosis. Until recently the constitutional treatment has consisted of the more or less active routine use of increasing doses of cod-liver oil, taxing a liver and digestive apparatus already weakened by disease, and not until very recently has the favorable effect of a constant open-air life on these cases been appreciated in this country.

In European countries, surgeons realized this fact long ago. Since 1861 more than one hundred sanitariums have been established there for the treatment of surgical tuberculosis, most of them near the seashore, but some inland. The French, from all their hospital reports, claim from eighty-seven to ninety-three per cent good results in cases treated at their open-air sanatoria. The English have also concluded that surgical tuberculosis should not be treated in city hospitals, but in the country.

In 1904 a fresh-air hospital was established on Coney Island, near New York, and as there were no available buildings, tents were pitched on the beach. Arrangements were made so the children could spend the entire twenty-four hours in the air, rain or shine, and each day they had their sea bath. The improvement of the children who came from the city hospitals and the cramped tenements was marked from the first, and by October it was decided that a permanent hospital should be established.

The patients, when coming to the hospital in June, were pale and thin, with poor appetites, and no desire to exert themselves. Quickly the appetites improved, the color came, and the weights increased. But there was doubt that the children would be able to stand the hard winter and continue to improve. It was realized that the experiment would amount to nothing if the fresh air, no matter how cold, were excluded. The fears were dispelled as the children took readily to the increasing cold, and the improvement which began in the summer continued.

In the buildings which were erected the wards were so arranged that a free circulation of air can be had at all times. Windows are never closed, day or night, summer or winter. The word draft is not known in the vocabulary of Sea Breeze Hospital. The children have be-

come so immune to cold that they never complain, no matter how cold the temperature.

One who has never visited the hospital can hardly realize the change that takes place in a patient between his admission and the time when he becomes one of the characteristic Sea Breeze children. The pale, drawn, pain-marked face; the thin, weak body, so characteristic of the tuberculous patient of the city hospitals, give way to the bright, cheerful, happy expression of the healthy child,— pink cheeks and ruddy complexion,— and the steady gain in weight. The body rounds out, and the languid attitude gives way to activity. It would probably be hard to find forty-five children under one roof or in one community who show such excellent nourishment and such thorough childish activity as do the children of Sea Breeze, notwithstanding the fact that these children are suffering from that dread malady, tuberculosis.

Good plain cooking has been insisted upon. Milk and eggs have at all times formed an important ingredient in the diet list. No child is in the house except at meal-time and during the school periods, and as the windows are always open, they are still in the fresh air.

Hopeless cases and cases with lung involvement are not received at Sea Breeze. It has been found that lung cases are made worse rather than better by the sea air. No patient is discharged until all signs of active disease have been absent for a sufficient time to make reasonably certain the permanency of the cure.

It should be stated that the gratifying effects of fresh air have not caused those in charge to neglect surgical measures, such as rest of diseased joints, preferably by plaster casts.— *Brainerd H. Whitbeck, M. D., in New York State Journal of Medicine.*

Sleeplessness and Its Treatment

DRUGS in the treatment of sleeplessness should be employed with the greatest caution. When insomnia occurs as an occasional result of some known violation of the laws of health, no account need be taken of it. Excessive fatigue and eating just before retiring are common causes. There is also a simple insomnia due to empty stomach, which needs only a little hot milk to set things right. Flatulence or an overloaded colon may prevent sleep. The effects of tea, coffee, and tobacco are familiar to all. Strychnin, caffein, and theobromin, when given medicinally, also cause insomnia. Mental excitement is a dispeller of sleep. The high arterial tension of kidney disease, arteriosclerosis, and digestive disturbances often cause persistent insomnia. Sleeplessness in old age is due to rigid vessels in the brain. On the other hand, insomnia may be due to weakness of the vessels, or rather of the nerves and muscles which should keep the vessels in tonic contraction, as in anemia, in recovery from grippe and typhoid, and in Graves's disease. These patients readily fall asleep sitting up, but when they lie down, such is the automatic dilatation of the cerebral vessels that the brain is suffused with blood, and sleep is effectually prevented.

Each case must be studied on its merits. It goes without saying that sleep-producing drugs are not to be given indiscriminately. Look for and correct underlying causes. Drugs are to be regarded only as expedients, when they are used, while the cause is being sought out.

Somebody has said that no one ever suffers from insomnia who has to get up at six o'clock every morning. Of course this is too much of a witty generalization, but there's a lot of truth in it, just the same. — *Editorial, Therapeutic Medicine.*

Massage for the Relief of Pain

MUSCULAR rheumatism should always receive massage from the first, and very often it will need no other treatment. The deposits frequently found in these cases can be promptly removed by massage, thus relieving pain that has existed for months or years.

The pain of neuritis, sciatica, and many of the neuralgias can at times receive great benefit from massage, but some cases tax the ingenuity of the operator. The operator will be agreeably surprised by the effects of massage for the relief of pain in frost bite, intestinal colic, flat foot, cramps, etc.

The manipulation must vary according to the case, and must be adapted to the position and kind of pain, and to the functional disability. The chief work in massage falls on the thumb and finger-tips, the inner surfaces of the fingers and eminences of the palm of the hand. The movements vary from the slightest touch to the most thorough kneading and percussion, followed frequently by active, passive, and resistive movements.

The manipulations should not cause pain, but should be followed by relief of pain or tension, and a general feeling of lightness and well-being. The case should receive the care given to a surgical operation, such as preparation of the hands, condition of the surface of the body treated, temperature of the room, and the position of the patient.

The physiological effects of massage are increased elimination, circulation, and metabolism, absorption of exudations, improved nutrition, relief of congestion, and quieting of the nervous system.

Massage should be much more extensively used. It not only relieves pain, but it shortens the time required for treatment.—*E. C. Thompson, M. D., in Boston Med. and Surg. Journal.*

The Indeterminate Stage

IF there is real progress in the art of medicine, we must be constantly clearing the outlines of diseases, fixing more clearly their characteristics that we may not mistake one for the other. As we do this, we must find ourselves able to recognize each malady at an earlier stage of its development.

As we thus trace each malady back toward its source, we must in time come to an indeterminate stage, where conditions too similar to be differentiated may develop into any one of a number of maladies. A "cold" may localize itself on any one of a number of tissue areas, and there is a time when we are at a loss to know which will be attacked. The patient is ill, yet we can not positively diagnose the malady. Indeed, chance may yet play a part and direct it to one location or the other.

It is in this early formative stage, while as yet the malady has not seated itself firmly in the tissues, that our therapeutics should prove most effective. Everybody believes in his ability to break up a cold; and the nihilism that consigns to the refuse heap the hot bath, cold compress, cathartic, diaphoretic, and emetic, would meet scant favor with the laity. Nor is there any evidence that such intervention is not of avail, if employed early. On the other hand, there is evidence that by effectual treatment many colds are broken up and many a serious illness aborted.

In this preliminary stage, we find as the prime factors fecal toxemia, defective elimination, and vasomotor disturbance. Clear the alimentary canal, start excretion, and equalize the circulation — and then try if you can, to persuade yourself that you have done nothing at all, that the patient was not going to be sick, and would have been all right next day if you had not "butted in."—*W. F. Waugh, M. D., in Medical Fortnightly.*

THE MEDICAL FORVM

Do We Teach the Young as Much as We Ought Regarding Sex?

IT is a much mooted question. For some years there have been those who have seen no good to come from the ban placed by modern society on the discussion of a topic so vital as that of sex hygiene. The present attitude toward the sex question, though it seems perfectly natural to us of this generation, because we have not known any other, is, after all, quite unique, unprecedented, and artificial. Like everything else that has by custom become a part of our folk ways, it seems to us to be so obvious, so natural, that no argument is needed for its defense. Decency now demands silence on the sex question, and we, without thought, accept the demand as just. I say without thought, for a little clear thinking would cause us to realize that silence on this important subject is equivalent to race suicide or something worse.

At the Massachusetts State Conference of Charities, held in Boston last fall, there was an important meeting of the committee on hygiene of sex, the details of which are given in the January number of *Hygiene and Physical Education*. Dr. Eliot of Harvard, the chairman, took an active interest in the discussions. He said, in part: —

"The evil is too great, in the opinion of many thinking people, to permit us to persevere in this policy of silence which has been proved to afford no remedy against the spread of this greatest evil. Silence as a policy has failed, and we come together to-night to consider what defenses we can provide our children, both boys and girls."

In the opening speech, Dr. Abner Post, of Boston, took up the dangers incident to vice through the transmission of horrible diseases, showing that the only way to avoid these evils is to warn the young of their existence. It is impossible to keep them from a knowledge of the evils, and they should be properly informed regarding the danger incident to them.

"With animals and plants reproduction is a normal act, the end and object of their being. Concealment is unknown. The study of plant reproduction, the relation of stamens and pistils, of anthers and ovules, we pursue with interest, and without shame. We talk with little reserve of the improvement of our flocks and herds and poultry.

"But with human beings the subject is practically tabooed. Mention is forbidden in these latter days, though it was apparently a matter of ordinary conversation in the days of Elizabeth. But the subject can not be entirely ignored. We recognize it when we recite the ten commandments, and when we read the story of the woman taken in adultery.

"Perhaps our present prudishness is in some part the result of early Puritan revolt against the license of their time, a revolt with which we can but sympathize. But the prudishness has been carried to a most remarkable extent.

"Why should one wish to disturb this refinement? What disadvantage comes from such neglect? It has resulted in an ignorance that is unfortunate. And ignorance in this matter is like ignorance in other places; it has too often an affinity with vice.

"Ignorance of the subject of sexual hygiene has led to very serious misfortunes,—to the wreck of valuable lives, to unfortunate marriages, to the production of diseased children—a misfortune to their parents, a burden to themselves and the community.

"Ignorance of sexual physiology leads to the misrepresentation of natural phenomena, and makes young men the easy victims of charlatans. Every large city contains men who trade on the fears of youth, and who, by describing, with an air of wisdom, natural peculiarities as abnormal and hurtful, extort money for unnecessary and sometimes harmful drugs."

Bernard J. Rothwell, of Boston, took for his theme the thought that in so-called parental modesty lies the root of the social evil. In support of this proposition, he said:—

"This is not the unsupported dictum of a mere layman; it is the public utterance of one of the most distinguished and influential prelates of England.

"The question is not, Will your child learn that which you sedulously try to conceal? the question is, Shall your child learn the sacred truths of life in a manner so reverent as to create an abiding admiration of the beneficence of the Creator, and an enduring sense of the dignity and nobility of personal purity, or shall it acquire clandestinely—as otherwise it surely will—distorted, vicious, and degradingly sensual impressions, destructive alike of spiritual development and of material well-being?"

The medical adviser of Harvard University, Dr. Marshall H. Bailey, telling his audience how to reach the boys, said:—

"It is certain that nine boys out of ten will be reached. Before nine reach the age of puberty, in one way or another they will come to know more or less about the mysteries of sex. Shall we leave them to get a mixture of truth and error from their associates in school, on the street, and elsewhere, or is there a better way? Opposition to instruction in the laws of life is general. Parents commonly do not give such instruction, and many are opposed to any one's undertaking it. Some are afraid of arousing 'prurient thoughts.' Some confound ignorance with innocence. They refuse to answer their children's reasonable questions related to sex, and the child naturally concludes that if father and mother regard these things as unmentionable, they must perforce be shameful."

And Dr. Bailey then proposed a plan for the enlistment of parents in a campaign of enlightenment.

The probation officer of the night court, New York City, Miss Maud E. Miner, gave some suggestions as to how to reach girls. In response to the query, "By whom shall instruction be given the girl?" she replied, "In every case it should be given by a woman."

"Wherever the *mother* is willing and qualified to give her daughter instruction, that is the very best of all. A bond of sympathy is established that causes the girl to feel more free to bring further perplexing problems to the mother, and to have more faith and trust in her.

"The usual instructor, a bad-minded playmate in the street, is dangerous, and how many children have had their minds poisoned and their view of life distorted by this method of teaching! Instead of sweet, noble thoughts, the mind, sensitive as the camera plate, has received impr ssions which can not be effaced.

"Then there is the teacher, who has real responsibility. She can take the child through the study of plant and animal life to an understanding of the beautiful truths with regard to the origin of life and reproduction. There should also be instruction in anatomy, physiology, and hygiene."

We can give only a few scattering thoughts from this immensely interesting and important gathering of earnest men and women bent on a mission of good for the rising generation. Thoughtful people are coming to realize that the bondage of silence we have been under regarding subjects that so vitally affect our welfare is radically wrong. Some of the most progressive of magazines have dared to discuss the subject, though in some cases the pruriency of the readers was shown, in that they protested against these discussions. I think it can be said, without any fear of successful contradiction, that every such protest is a mask to cover up some rottenness in the heart of the protestor. There is no shame in sex, and it is only the consciousness that sex has been misused and abused that causes one to plead for silence on these subjects.

Alcohol and Efficiency

THE *British Medical Journal*, discussing the recent Marathon race in Boston, says editorially: —

"The fact that none of the contestants used alcohol during the race, and that all but one finished in good condition, is another evidence that alcohol diminishes rather than increases bodily endurance and capacity for work, since in former years, runners who have used alcohol have been the first to give out. The establishment of this proof alone, if its acceptance can be made general, would be a sufficient justification for the Marathon race as a physiological experiment."

However, the *Journal* recognized that while it might have a use as a physiological experiment, the Marathon race is not without its dangers, for,—

"Apart from its experimental value, however, it remains to be proved that this form of athletic tests is in any way desirable or beneficial, even if it be not of positive harm."

We are inclined to think the *Journal* takes the right position regarding this. Any farmer knows that to work a young colt severely, practically handicaps that colt for the rest of its life; and we can not believe that any tests so severe as a Marathon race, can be of any permanent benefit to a schoolboy, no matter how strong his heart and lungs and other organs may be.

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Human and Bovine Tuberculosis

THE officials of the Department of Agriculture are attempting to make a strong case against the dairy cow as a cause of tuberculosis in man, but there are eminent men who still refuse to accept their position. Dr. Rothwell Park, the New York pathologist, at the Tuberculosis Congress in Washington reported that of the human tuberculosis in New York, only two and one-half per cent could be traced to infection from milk, butter, cheese, or meat; and this small percentage was found in children. He thinks that in calling attention to the cow as an agent in the transmission of tuberculosis, we take the attention from the real danger, that of human infection. Commenting on this, the *New York Medical Journal* says, editorially: —

"We can not afford to draw a feeling of security from observations of the fact that transfer of the bovine diseases to the human subject takes place mainly in children. We must, to the best of our ability, protect infants as well as adolescents and adults against tuberculosis infection. Children are the chief consumers of milk as such, and no pains should be spared to assure ourselves that the milk supply to them is free from active tubercle bacilli, even if great expense has to be incurred."

It will be seen from this that the question of the infection of human beings by tuberculosis from cattle is still an unsettled question, although the bulk of the evidence would seem to favor the idea that this infection is much more potent in the case of very young children; but however much we may recognize the cow as a source of tubercular infection, we should not forget that there is strong evidence for believing that considerable over ninety per cent of all cases of human tuberculosis comes from other human cases.

The Medical Missionary At Work

Incidents of Medical Missionary Work Among the Abyssinians

L. R. Conradi

DURING my recent stay in Eritrea, I visited the Swedish mission station at Bellesa, seven miles from Asmara. Here I made the acquaintance of Dr. Karl Winquist, the first medical missionary sent out by the Swedish Missionary Society, who has been laboring in this colony for more than twenty-five years. In the summer of 1883 the doctor was sent to Massawa, East Africa, and connected with the Swedish mission station at Monkullo, some fifteen miles inland. The Swedes conducted a home for both girls and boys there, in which various nationalities were represented — the Amhara, Tigré, Tigrene, Galla, Shamkalla, also the Kunama.

Previously to his arrival the Mohammedans, who prevail in the coast district, had avoided the mission, but when they learned that a doctor had come from Europe, they began to flock to the station from all quarters. The two rooms available he used for an office and a meeting-room, while the veranda served as a ward for the sick. A few young natives, who had acquired the Swedish, were educated as nurses, while the doctor gave his principal attention to the study of the Tigré. In the summer of 1884 he spent several months at Cheren, where he had his hands full. The Abyssinian chief, Alula, had made a raid into this district, and many had been wounded and were in need of a physician. The Catholic mission at Cheren, having no doctor, also asked him to look after their sick.

In the summer of 1885 Ras Alula sent messengers inviting him to Asmara, as he had many wounded ones in his army. Two Italian army physicians went up with him at the same time. Having some difficult cases to look after, the doctor at times fell on his knees to ask help of the Great Physician. Ras Alula, hearing of this, chose him as his own personal physician, but the doctor was obliged to taste the medicine first before he gave it to the *ras*. Alula became so well pleased that he wanted to retain Dr. Winquist, but was informed that he could consent only upon the condition that his fellow missionaries would be permitted to be with him. But as this permission must be obtained from the king, the doctor returned after two and one-half busy months.

In 1890 a great famine broke out in Abyssinia. Hundreds of people came down to the coast to obtain help. Cholera broke out, and there was no shelter for the sick. Through the assistance of willing friends at home, the missionaries were able to distribute a thousand loaves of bread a day, but that was as a drop in the sea. They put up some

grass huts for the sick, some of whom lost their senses. Months passed ere some were fully restored. But the help rendered left grateful memories in the hearts of many, who called Monkullo, "The house of the world's Redeemer," and some of these afterward united with the Swedish Church.

In 1896, when the war was raging between the Abyssinians and Italians, nearly everybody around Massawa came down with fever. The doctor and his coworkers suffered severely from it, and in order to recover completely, he spent a year in Sweden after thirteen years of hard work. On his return, he began work at Bellesa. Here he soon found it necessary to learn the Tigrene language. One of his patients being a Tigrene teacher, he made good progress with his language study. During their temporary stay in the highlands, they had taken considerable pains to acquaint themselves with the people, with their manner of living and their ways of thinking. They found many of the young people anxious to learn to read. To meet this desire they first published a Tigrene primer at Monkullo. After further study, between the years 1899 and 1901, they printed in Asmara the four Gospels, a small catechism, and Bible history. As the Tigrene had thus far not been committed to writing, the doctor had to overcome many difficulties. As a result of ten years' hard work they have just finished the New Testament in the Tigrene, and I found him hard at work with his helpers translating the Old Testament.

During this time they found it necessary to erect permanent quarters for the sick who came to Bellesa. As their means were limited, a large one-story building was erected. One large room serves as meeting hall, and at times also as ward for the less ailing class of patients; then there is a ward for women, and one for men, an operating-room, a laboratory, a kitchen, and a provision-room. The hospital has room for twenty patients, and the cost of the buildings was only seven hundred dollars. The beds were made Abyssinian fashion, of stone and cement, and some mixture which gives them a glassy surface easy to be kept clean of insects. Since 1903 the doctor has had a Swedish nurse — a woman — to assist him in his work.

One of the native evangelists reads some part of the Bible each morning and evening, and offers prayer for the sick. Copies of the Bible are provided in the different tongues, so that the patients can study for themselves. Many thus become acquainted with the precious truths of the gospel at the very time when their hearts are most willing to receive it.

An important question was whether the treatments should be entirely free. But as instruments, medicines, bandages, etc., are all expensive, and they had but a limited sum, they soon found it necessary to make a small charge. Many came applying for help, and quite a number of these only wanted to know whether they had any disease, but as soon as a nominal charge of two cents was made, these last kept away, and only sick people came. About twenty per cent of all the diseases were eye diseases, and next the cases of malaria from the lowlands. As the people are poorly clad, many suffer from colds. The mission workers have from 3,000 to 5,000 out-patients during the year, while in the hospital itself, they have about 130 annually. With the out-patients, the treatments given vary from between 10,000 to 20,000 a year. The present income is between $600 and $1,000 a year, which covers at least most of the expenses for medicine, etc.

As we went through this small, primitive hospital and saw the grateful faces

of the patients, then went to the doctor's study-room and to the room where his translator was busy with the translation of the Bible, and listened to the doctor's experiences as he has gone on muleback to visit the native houses, we could but realize that here was real medical missionary work — blending the healing of the body with the preaching of the word of life, yes, even providing the latter by translating it into the native tongue. During the twenty-five years, the doctor has been on furlough only once to Sweden. When I asked him why he returned only at the time when his own health was run down, he replied, "I could not leave the many sick."

Above the hospital, is the doctor's simple home. His wife, being the daughter of a Jewish missionary, reared in Syria, is a great help to him in translating. Near his home the mission has a home for sixty girls, and a few simple schoolrooms. As the matron had been in England, she told us freely on what principle the school was conducted. The girls generally remain from two to three years, and while receiving instruction in their mother tongue and handiwork, they are taught the Word of God. Many become Protestants. As the girls marry at a very early age, the mission workers have not succeeded in securing good nurses, and there is little prospect of their being able to use them as teachers. Thus the best the school can do is to educate good wives for the Protestant young men who are educated as teachers, evangelists, printers, etc., at the mission school at Asmara. Mission work among the Abyssinians presents many difficulties, but here, as elsewhere, if the precious seed is sown with tears, it will bear fruit in time; and here, as elsewhere, true medical missionary work proves a mighty factor in bringing the gospel to the dark natives.

Dr. Winquist called on me in Asmara, November 25, when we had a long talk together about the "present truth," and I gave him the special Missions number of the *Review* and some other periodicals. On December 4 he rode again to town, and the next day we learned that he had suddenly passed away. So now he rests at Bellesa, until the great Chief Physician gives life indeed. Dr. Vasenius attended the funeral to represent the Seventh-day Adventist Mission.

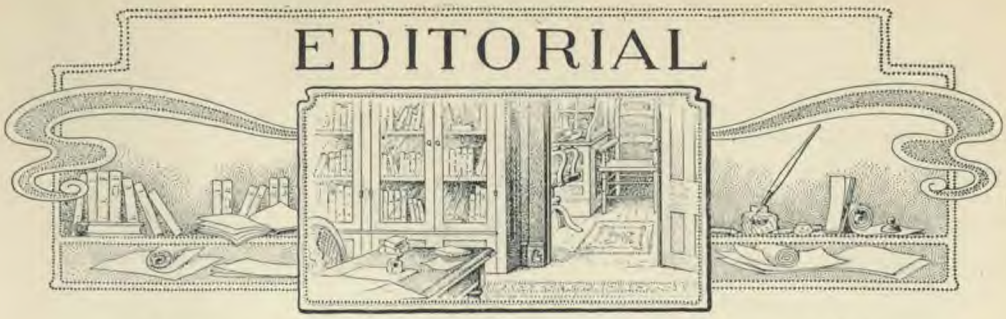
Hamburg, Germany.

Medical Missionary Notes

Dr. Vasenius mentioned in the foregoing report regarding medical missionary work in Abyssinia, East Africa, was graduated from George Washington University in class of 1909, and appointed by the Seventh-day Adventist Mission Board for Abyssinia. He recently accompanied Mr. Conradi to that field, locating at Asmara, in the Italian Colony of Eritrea, which is located on the border of Abyssinia proper; and owing to the fact that this place is the northern outlet for the Abyssinians, opportunity is thus given him to acquire their language and to study their customs. Dr. Vasenius will make an extended tour of Abyssinia in the near future, the Lord willing, to ascertain conditions and best locality for establishing a medical mission in this interesting missionary field — the kingdom of the world-renowned King Menelik.

Medical missionaries in China say that the natives will bear without flinching a degree of pain from which the stoutest of us would shrink in terror. A woman in Shao-wu, afflicted with an ulcer of the leg, was treated by a native "doctor." One day he came to the mission hospital to show the physician in charge a "string" which he calmly announced he had pulled from the wound. It was the sciatic nerve! To people suffering from such barbarous methods, and to whom anesthetics are unknown, the merciful methods of foreign doctors in the mission hospitals seem like miracles.

EDITORIAL



Proposed Department of Public Health

IN the Senate committee's hearing on Senator Owen's bill providing for the establishment of a national department of health headed by a cabinet officer, there were several facts very evident.

1. The opinion was quite strong that such a bill would interfere with State rights. Apparently no one seemed to realize that such an argument might have, with as much justice, been urged against the establishment of the Department of Agriculture, and of the Department of Commerce and Labor. Every nation has its theories of government which have become hoary with age, and which have assumed great traditional importance; and the United States, though the infant among world powers, is no exception to the rule. There is no doubt that in many matters, the more advanced monarchies of Europe are more flexible, more useful to the common people, better established against the exploitation of robbing corporations, than is the United States, and this, very largely, because they are not compelled all the time to reckon with the bugaboo of "State Rights;" capitalized to indicate its sacred character.

State rights are good enough if we recognize that above them are the rights of the people. Lincoln so recognized it when he rode through all the traditions of State rights with the Emancipation Proclamation, and the loyal people of the United States stood behind him in it. In matters of health in case there is a conflict, the rights of the people are above State rights, and no State has a right to deal with yellow fever, or bubonic plague, or hookworm disease, or any other disease in such a way as to menace its neighbors.

It is not enough to have a jurisdiction only when disease actually gets beyond the control of the State and begins to invade the neighboring States. If Louisiana, for instance, should absolutely refuse to clear herself of yellow fever by modern methods, it would clearly be the function of the national government to step in and see that it did it. If California refused to take adequate steps to rid itself of the plague of ground-squirrels, it would certainly be the prerogative of the national government to see that proper steps were taken. But these are only hypothetic cases, and in actual practise would probably be rarer than the necessity for an Emancipation Proclamation.

In another class of conditions, the national government should have some authority, that is in the relation with other powers, with which it makes treaties. The treaties form a part of the supreme law of our land, and by right should extend in their jurisdiction over State governments as well as over the Territories and the District of Columbia. It is certainly an anomalous position for our

government to be in when it makes a treaty regarding the registration of deaths, say with Italy, and finds itself unable to comply with the terms of the treaty because of lack of jurisdiction. Undoubtedly most of the work of the department of health would be in an advisory line, assisting, unifying, suggesting, and where necessary, sending a corps of workers to unite with the local men in overcoming some local condition which may be beyond the power of the local men to cope with. Such instances have been not a few in recent years, in the treatment of plague, of yellow fever, of investigations regarding hookworm disease, etc.

2. There was a strong opinion manifested by the opponents of the bill that it would work for the establishment of a medical trust, and would work against the various sects in medicine, such as the homeopaths, the osteopaths, the mental healers, and others. In what way a medical trust would be established, did not make itself apparent. No one made the claim, for instance, that the Marine Hospital Service, in going into San Francisco and ridding it of plague, interfered with osteopathic practise. Who has ever heard of an osteopath asking for a position among the men fighting against the infectious diseases? Whatever these various sects may be doing for the cure of disease, there is only one body of men who are intelligently engaged in a study of the prevention of disease. In fact, the majority of the other men are so opposed to any bacterial theory of disease that it is difficult to conceive how they could have any sympathy with any work for the eradication of disease by a campaign of cleaning up. One wonders if they do not instinctively see that the success of the germ theory — that is to say, its acceptance by all the people — will mean the undoing of the sects and their theories. A man who believes that all disease is due to a crick in the back is not likely to have any friendly feeling for the *fact* (the word is used knowingly) that a mosquito causes malarial fever or yellow fever, and that a rat is a means of transmission of plague, etc. In this way, one might conceive that the department might produce a monopoly, but only in the same way that the Department of Agriculture or any other department produces a monopoly. Such a department must demand experts for its *personnel,* and, of course, that would debar every one whose knowledge was confined to the twists in the back-bone, or to the law of *similia,* or to absent treatment. It is not supposed these men would feel that they were unjustly treated because they could not get a position in the Department of Commerce and Labor; and they would not argue from the fact that the department employed only men skilled in its lines to prove that it was establishing a financial trust. Why should they see in the fact that the department of health would employ only men expert in the prevention of disease the creation of a medical trust? Is it after all the fear that the department will cause such a radical improvement in the general health that their jobs will be less remunerative? If this is their attitude, they look at it in a less unselfish way than the average doctor of the regular school.

3. Another point of attack against the bill was that it was the child of the American Medical Association. Now I am not a member of this association, and never expect to be, and I have nothing particularly to urge in its defense. I suppose its members are neither saints nor devils,— that they are neither better nor worse than the majority of men,— and without any doubt they are human enough, if they have the opportunity, to work for the advantage of their association and its membership. I have yet to

know of an association, religious or otherwise, that is wholly altruistic, that does not look out for the good of its own members. On the other hand, I believe that there are societies, and the American Medical Association among them, that encourages in its members a spirit of benevolence.

There are some omens — straws showing the direction of the wind — of an attempt to make all medical science one, to encourage all practitioners to drop sect lines, and enter a broader field which shall include the good points of all; but one can not help observing at the same time, a tendency in certain quarters to stand by some *one* principle of practise, ignoring everything else. Possibly this attitude originates in the special sectarian schools; for if there was established one broad school of medicine teaching what is good in all, it would render useless some of the schools now engaged in teaching some one feature, such as the school of psychotherapeutics. One can understand that men in charge of such a school would fear a "medical trust." What they need to fear is an educated public opinion that will eventually say that a man to be a physician must do something besides attend a course of a few weeks at an "absent treatment" school.

But do not misunderstand me to say that the establishment of a department of health will in any way interfere with the working of other schools, except as it may do so by a campaign of education which will gradually lead all the people or the more intelligent of them to understand the merits of the case, and then the people will decide it on its own merits. If these people of the sectarian schools are afraid of a campaign of education, if they are afraid to have the people know what physics, and chemistry, and physiology, and anatomy, and pathology, and bacteriology, and other allied sciences are saying in regard to disease, its nature and means of prevention, they may well antagonize the creation of a department of health; but it will come, evidently, notwithstanding all their efforts.

The National Association for the Study and Prevention of Tuberculosis

IN the last session of this association, held in Washington, D. C., May 2-4, 1910, there was a decided reaction in some points against the teachings of recent years. For instance, Dr. Llewellys F. Barker, chairman of the Clinical Section, stated in his opening remarks his opinion that not enough attention is being given to the human factor in tuberculosis. We have given so much attention to the tubercle bacillus that we have forgotten the other important element, and there is evidence that we will in a short time return to the teachings of former years, and give far more attention to individual predisposition and to inherited predisposition. He referred to some recent work on the resistance of certain strains of wheat to rust, and stated that when this wheat was crossed with the non-resistant variety, three fourths of the hybrid variety proved to be non-resistant, and one fourth absolutely resistant, exemplifying the Mendelian law of heredity in the transmission of susceptibility or immunity. Dr. Barker is of the opinion that susceptibility to tuberculosis may follow the Mendelian law. This suggests to him the advisability of selecting resistant parents for the future stock of earth's inhabitants.

Another topic freely discussed was the curability of tuberculosis. There was a quite general consensus of opinion that in this regard we have been too optimistic. The patient is apt to understand the word "cure" as he understands the cure of typhoid or measles, and to say, "I *had* tuberculosis." Such patients are in much more danger of relapse than one who realizes that his disease is only arrested, and that its continued arrest depends upon his constant watchfulness. Dr. Miller stated that it is the nature of tuberculosis to relapse, and we have been too optimistic and given too much hope as to the curability of the disease. One physician had repeatedly noticed in patients who had been sent to a sanatorium, and who had returned evidently much improved in general health, that the tuberculosis processes had actually increased while the general health improved. Dr. Woods Hutchinson spoke of his experience in sanatoriums in various localities, and said, humorously, that he found tuberculosis to be extremely curable, so much so that one patient is capable of being cured four or five times of the disease. He found, wherever he went, that numbers of patients were "graduates" of other sanatoriums.

Dr. Dunn gave, among the reasons why so many sanatorium patients relapse, the following: —

1. The impatience of the patient. As soon as he has a feeling of well-being and an amelioration of symptoms, he is restless under what seems to him to be needless expense, and he returns too soon to his old environment.

2. Character of the patient. Lack of fixity of purpose, and of determination to make any necessary sacrifice in order to gain health.

3. Often insufficient instruction is given to the patient on leaving the sanatorium.

4. Continuing the rest-cure during the entire period of treatment leaves him utterly unfitted to take up the ordinary duties of life. During the latter part of the cure there should be a gradual increase in the work the patient is required to do, until he is doing more than will be required of him when he returns home.

Dr. Miller stated that in his belief it is unwise to prescribe outdoor work to a patient utterly unfitted by his past life for such work. It is often better for the clerk to remain at his desk than to take up outdoor work that he is unused to. The patient often does more poorly at the outdoor work than at his old occupation.

As We See It

Our Day of "Glorious" Hysteria WHEN we consider the number of lives that we destroy uselessly in celebration of our independence, as compared with the number of lives our independence cost, we are led to query how long this insanity is to last. When will Americans learn that there are other ways of showing patriotism aside from the time-honored Chinese method of burning gunpowder and making noise, and incidentally destroying millions of dollars in property and thousands of lives?

According to the *Journal of the American Medical Association,* we annually kill and wound more in our senseless celebrations than suffered a like fate from seven of the most notable battles of the American Revolution. Here are the figures:—

BATTLES	KILLED AND WOUNDED	CELEBRATION	KILLED AND WOUNDED
Lexington	83	July 4, 1903	4,449
Bunker Hill	449	July 4, 1904	4,169
Fort Moultrie ...	37	July 4, 1905	5,176
White Plains	100	July 4, 1906	5,466
Fort Washington	149	July 4, 1907	4,413
Monmouth	229	July 4, 1908	5,623
Cowpens	72	July 4, 1909	5,307
	1,119		34,603

And the chances are that the same purposeless method of showing our patriotism by killing people and burning buildings will go on for some time in a large number of American cities and towns. It is cheering, however, to know that a few cities have tired of this sort of thing, and have resolved to put a stop to it.

Agar-Agar Now Listed AGAR-AGAR, a vegetable gelatin prepared from East Indian seaweeds, has been given an official recommendation by the Council of Pharmacy as a remedy for constipation. Its most accustomed use in this country is in the preparation of nutrient media in bacteriological laboratories, but some time ago it was recognized that on account of its indigestibility it gave bulk to the food, and acted very efficiently on the digestive functions. A certain sanitarium has put it on the market under a fancy name and at a fancy price. The plain agar is every bit as good, so that when one buys a dollar's worth of the sanitarium article, he pays ten cents for agar, and ninety cents for name. The agar may be obtained in any store selling bacteriological supplies. It should be cut up into very fine pieces, and taken with the food in quantity of from one-sixth to one-half ounce, as may be necessary.

Meat Preservatives NEW light has recently been thrown on the value of boric acid as a meat preservative, by an English investigator, who finds that while in the proportion usually used it retards all germ growth to some extent, the effect is principally manifest upon the harmless germs, and upon those germs that cause disagreeable odors, while the most dangerous germs, such as the typhoid bacillus, and the bacillus which produces inflammation of the intestines, are scarcely influenced. Meat not treated with boric acid will in a comparatively short time give off odors warning against its use. The boric-treated meat may give off no such odors, even when containing exceedingly dangerous germs. In other words, meat poisoning is much more likely to happen with boric-acid meat than with meat not so treated.

Breakfast Foods A RECENT bulletin of the Connecticut Agricultural Experiment Station, while referring to most breakfast foods as clean and of good quality, condemns the practise of using

unwarranted expressions on the packages; such expressions, for instance, as that a certain food is "a brain and nerve food." Grape nuts, for example, is sold as "a food for brain and nervous centers." Saxon wheat bears the statement that it is "a brain, nerve, and muscle food." Some packages make unwarranted statements as to the nutritive value of the food as compared with ordinary breads. Such statements are untrue, and are uncalled for. As a matter of fact, most of the breakfast foods are about equivalent in value to a good quality of bread, when that bread has been slightly dried in the oven. That is, bread as ordinarily made contains a certain amount of water, and for that reason a pound of bread is not so nourishing as a pound of any of the breakfast foods, but a pound of zwieback toasted in the oven would contain practically the same nourishment. The majority of breakfast-food people, that is, the people who have the breakfast-food habit, are not fools. They know something regarding the elements of physiology and chemistry, and probably would use these foods as readily if the cartons contained only statements of fact.

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The Power of Thought

AN incident is related by Dr. Stuart McGuire, of Richmond, Va., in the March 26 issue of *The Journal of the American Medical Association*, which casts some light on the theory that all disease, or even that all nervous disease, is curable by the "thought" method.

"A distinguished modern surgeon cites an instance occurring in his early professional life, of a patient long treated without improvement, for digestive disturbance. The surgeon, who had decided that the man was a neurasthenic, one day found that his patient had acute appendicitis. He operated on him, removing the appendix. Much to his disappointment, the patient, after leaving the hospital, complained as before, and the surgeon was therefore confirmed in his opinion that the patient was a neurasthenic. Later the patient developed jaundice and symptoms of inflammation of the gall-bladder, and was operated on a second time, and a number of gall-stones were removed. Before he left the hospital, however, he began to have his old pains, and then the surgeon said he knew the patient was a neurasthenic. Without expectation of benefit an X-ray picture was made of the patient's abdomen, and it was found there was a stone in the right kidney. A third operation was performed, and the stone removed, and from that time the patient has been well."

How much would "thought" have done in the relief of this condition which, to all appearances, was a case of pure nervous trouble?

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Inadequate Registration Laws

THE Census Bureau has repeatedly appealed to the legislators of the various States to enact adequate laws for the registration of births and deaths. As it is now, our vital statistics are crude and untrustworthy, and wholly out of keeping with a nation professing advanced civilization. The *Lancet* (London) of April 30, commenting on American mortality statistics, says: —

"Owing to the loose legislation respecting birth and death registration, the imperfection of death certificates, and the frequent changes in the *personnel* of the registration bureaus, no useful comparison has until recent years been possible of the records of even the group of districts within the registration area. Even now the data required for accurately computing death-rates of the United States as a whole are lacking."

This is one of the beautiful results of our doctrine of State rights which has bloomed and blossomed until we attribute to it a sacred significance. There is no sane reason why there should not be national laws providing for the registration of births and deaths, so that this country as a whole might compare at least favorably with some of the second- and third-rate European States.

White, Graham, and Whole-Wheat Breads

WE have had a number of protests against the article by Mr. Cristodoro in the April number, "White Bread or Brown Bread?" and perhaps an explanation will be a help to some. I would like to call the attention of the readers to a few facts: —

1. Patent flour is *not* superfine flour, and the article had nothing to say in favor of the use of superfine flour.

2. Whatever the original Graham flour may have been, the modern Graham seems to be usually something else than *unbolted* wheat, differing in its make-up according to the miller who makes it. It is often white flour to which bran has been added after bolting, and it has been shown conclusively by experiment that bran renders the bread *distinctly less digestible,* that is, a larger proportion of the bran-flour (so-called Graham) passes out of the intestine undigested.

3. White flour *must* be clean, else it will not be white. The cleaning process is one of the most expensive in the mill. If the Graham or whole-wheat is made without bolting, there is not the same need for cleanliness as there is in making white flour.

4. As to the comparative nutritive values of the flours, we find the following in Bulletin No. 28 (the figures are percentages): —

	Protein[1]	Fats	Carbohydrates[2]	Fiber[3]
Patent	11.4	1.0	75.6	.2
Graham	13.3	2.2	71.4	1.9
Entire Wheat.	13.8	1.9	71.9	.9

So far as the nutritive ingredients are concerned, the Graham and the entire wheat are the better balanced, containing as they do a larger proportion of protein or flesh formers than the patent flour, the reason being that the outer coats contain a perceptible amount of protein.

5. But the proportion of nutritives in the flour does not indicate the proportion in which it is utilized in the body. Numerous digestion experiments show that while the coarser flours have a higher nutritive value, a smaller proportion of the nutrition of these flours is used in the body. I can not give the proofs, which would fill this magazine, but will make two brief quotations, the first from Bulletin No. 101, Official Experiment Station, United States Department of Agriculture, page 63: —

"The Graham flour contained the highest and the patent flour the lowest percentage of total protein. But according to the results of digestion experiments with these flours, the proportion of digestible or available protein and available energy in the patent flour was larger than in either the entire-wheat or the Graham flour. The lower digestibility of the latter is due to the fact that in both these flours a considerable proportion of this constituent is contained in the coarser particles (bran), and so resists the action of the digestive juices and escapes digestion."

The next quotation is from Bulletin No. 143 of the same series, page 55: —

"Even though the Graham flour contains the most and the white flour the least protein of the three, the body would obtain more protein and energy from a pound of entire-wheat flour than from a pound of Graham flour, and still more from a pound of white flour than from either of the others."

All these flours have their place. On the same page last quoted from is the following: —

"From all the data included in this bulletin and in others reporting previous work on the same subject, it is evident that all kinds of wheat bread are quite well digested, and worthy of the important place in the diet which they hold. In fact, there is no single food which is so indispensable as bread. It is a very economical source of nutriment, and the different kinds are valuable as affording means for variety in the diet."

One more quotation from the Year Book of the Department of Agriculture for 1903, page 362: —

"While the coarser grades are not more nutritious than the fine flours, there are many cases in which they are especially desirable, as, for instance, for persons of sedentary habit and occupation, because their stimulation of the alimentary tract may help to procure a larger secretion of the digestive juices, and also to overcome a tendency to constipation."

[1] Gluten, etc.
[2] Starch, etc.
[3] Indigestible matter.

Heart Songs, a collection of favorite songs of all times. Cloth, 512 pages, $3. Chapple Publishing Co., Boston, Mass.

Whether you "know Joe Chapple and his *National Magazine*" or not, you are bound to admit that he has done a good job in compiling this volume of old and treasured songs. It has been out a little over a year, and if it has not already been given a wide circulation, it is because Joe's circulation department has been loafing — which is scarcely to be suspected.

Knowing that "Heart Songs" was originated largely for the purpose of boosting the circulation of the *National Magazine,* one is inclined to look for a premium book with the regulation cheap paper, gray printing, and flimsy, gaudily decorated covers, but he will be happily disappointed. Not only is it a handsome volume, well printed and tastily bound, but it also contains as fine a collection of favorite songs as one is likely to find. The introduction says that twenty-five thousand people contributed them; it doesn't say how many there are, and we haven't taken the time to count them. They average more than one to a page without crowding.

The Chapple Publishing Co. took four years to compile this volume, though it does not contain a single new thing — which, perhaps, is its chief virtue. One is delighted to find in its pages so many of the old songs that mother or grandmother used to sing, and which are not to be found in the usual collections. "Heart Songs" ought to be an excellent antidote for the blues.

Life and Health, by James Frederick Rogers, M. D., J. B. Lippincott & Co., Philadelphia and London, cloth, net $1.

This little work contains most excellent instruction regarding the care of the body, written in a way to please and convince. But we think the author has marred the usefulness of the book for many readers by combining with the facts he has given here, theories as to the origin of man which are repugnant to many. When a person carefully describes all the details as to how a man has descended from a little particle of gelatinous stuff, as though this had all been scientifically determined, it seems as if he were stepping aside from his purpose to write a book on health. Between the proved and the unproved there is a vast gulf which is not likely to be bridged over very soon.

The Happy Habit, by Joe Mitchell Chapple, Boston, published by the Chapple Publishing Company.

Joe is evidently a happy fellow, at least one who sees the bright side of every incident. He has given an antidote for that bored, dark-brown-taste-in-the-mouth feeling that so many of us experience at times in spite of ourselves, and has put it up in tabloid form, sugar coated, to be taken one tablet at a time, and not more than three a day. We think the treatment in this way would last for several weeks, and by that time the reader ought to have the "happy habit."

Hypnotism, by Edward B. Warman, A. M., published by the A. C. McClurg Co., Chicago, 48 pages, fifty cents.

This little book attempts to explain to the reader that there is no possible danger in hypnotism as a therapeutic measure, and that it has a wide field of usefulness. In comment I might give a quotation from a recent number of the *Journal of the American Medical Association,* December, 1909: —

"As to the possible ill effects of hypnotization without bad intent, while numerous instances can be quoted, it may suffice to recall some experiments at the University of Pennsylvania years ago. Two gentlemen, both promising young medical men, then in various lines, and one of them now a most distinguished practitioner, experimented upon self-hypnotization or autosuggestion in the production of attacks of convulsions. After a few weeks of actual experiment, at such times as they could spare from other work, they found themselves able to bring on convulsive seizures of a most violent cataleptic description, sometimes with clonic movements. They soon stopped, finding the consequent nervous and other effects disagreeable, and especially since the convulsions were beginning to get beyond their control."

Many conscientious physicians who have experimented with hypnotism are satisfied that it at the best is a very dangerous thing to deal with. There is no question that once a hypnotist gets a patient well into his power, he is likely to have a permanent patient as long as the man has any money to spend on himself.

Some Recent Public Documents Bearing on Hygiene

Bread and Bread Making (Farmers' Bulletin No. 389), by Helen W. Atwater. Mailed free on application to the Secretary of Agriculture, Washington, D. C.

This pamphlet discusses the composition of the wheat grain, the relative nutritive values of the various flours, and explains the various methods of making leavened and unleavened bread. Even the experienced bread maker will find here some valuable information.

The Economical Use of Meat in the Home (Farmers' Bulletin No. 391). Mailed free on application to the Secretary of Agriculture, Washington, D. C.

In view of the increasing price of meats, government officials, knowing that people *will have meat*, have given some instruction as to economy in the purchase and in the use of meat. No one doubts that too much meat is eaten, and that a restriction in this line would be a benefit to nearly every American; and some of us think that if meat were entirely substituted by a properly selected non-meat diet, no harm, but good would result.

Habit-Forming Agents; Their Indiscriminate Sale and Use a Menace to the Public Welfare, by L. F. Kebler, Chief, Division of Drugs; Bureau of Chemistry (Farmers' Bulletin No. 393). Mailed free on application to the Secretary of Agriculture, Washington, D. C.

The Bureau of Chemistry has for several years been making a study of patent-medicine frauds, and has been ferreting out the dealers in habit-forming drugs. Many of the workers in these nefarious industries have been brought to punishment, and their business broken up. But it is such a lucrative business — there are so many "suckers" ready to "bite" — that it is too fine a stream to go unfished, and no sooner is one set of men brought to time than another set, or possibly the same set in another disguise, begins to operate in new quarters. This pamphlet gives warning against the soothing sirups, the "soft drinks," and the various "dopes," and the habit cures which bring ruin and degradation to the user much more rapidly than does whisky.

"The Sanitary Privy," illustrated, by Charles W. Stiles, Ph. D. This valuable article appears in *Public Health Reports,* April 29, 1910.

For a copy, address Secretary of the Treasury, Washington, D. C. In view of the findings regarding the transmission of hookworm and other entozoal diseases, this article is particularly timely.

The Dissemination of Disease by Dairy Products, and Methods for Prevention (Bureau of Animal Industry, Circular No. 153). Send application to the Secretary of Agriculture, Washington, D. C.

This timely bulletin contains the following papers: —

1. "Milk as a Carrier of Contagious Disease, and the Desirability of Pasteurization."
2. "The Importance of a Wholesome Milk Supply."
3. "The Relation of the Tuberculous Cow to the Public Health."
4. "Interpretation of the Results of Bacteriological Examination of Milk."
5. "Pasteurization, Its Advantages and Disadvantages."

National Vitality, Its Wastes and Conservation, by Irving Fisher, extract from the report of the National Conservation Commission (Senate Document No. 419, Sixty-first Congress, second session, 1910), Government Printing-office.

This document, largely the work of a political economist who rightly appreciates the value to the nation of human life and health (most economists attach more importance to the value of the hog and the potato), gives evidence of most careful study. Senator Owen's speech advocating a national department of health was based very largely on the material furnished by this pamphlet. Price, 10 cents. Address Superintendent of Documents, Washington, D. C., and send coin or money-order. Stamps are not accepted.

In the Magazines

Announcement of Articles on Hygiene and Kindred Subjects Which Appear in the Current (July) Issue of the Magazines

American Motherhood, Cooperstown, N. Y.

"Infant's Outfit," by Faye N. Merriman.

"The Care of the Young Child," by Dr. Emma F. A. Drake.

"Educational Mud Pie," by Carolyn Bailey.

"Feeding the Baby in Summer Weather," by the Editor.

"A Better Crop of Boys and Girls," by Dr. F. D. Coburn.

Cosmopolitan Magazine, New York.

"Adventures in Neurasthenia," a fiction-fact story, by O. Henry.

Country Life in America, New York.

"The Art of Deep-Sea Swimming," by Hrolf Wisby.

"Climbing and Camping in the Canadian Rockies," by Agnes C. Laut.

"How One Town Found Recreation," Doane Robinson.

The Garden Magazine — Farming, New York.

"Children's Gardens Everywhere," by Ellen Eddy Shaw; photographs by Mary H. Northend, A. F. Loomis, and others.

"Start a Rock Garden Now," Thomas McAdam.

Good Housekeeping Magazine, Springfield, Mass.

"Death From Home-Canned Fruit." Story of fatal case of poisoning from home-canned fruit.

Hampton's Magazine, New York.

"Health Building From the Ground Up," by Rheta Childe Dorr, showing the efforts made to preserve the health of the children of the United States. Illustrated with photographs.

Harper's Bazar, New York.

"Baby's Second Summer," by Marianna Wheeler.

"Nerves in the Home," by Rev. Samuel McComb.

"The Amateur Nurse and Patient," by Mary Stewart Cutting.

The Housekeeper, Minneapolis, Minn.

"The Crimes of the Housewife," by Lilian Bell.

"Anti-Fly Crusade."

Journal of the Outdoor Life, New York.

"Articles on Outdoor Treatment for Tuberculosis," as well as other articles for social workers, physicians, and laymen who are interested in the antituberculosis campaign.

The Ladies' Home Journal, Philadelphia.

"How to Get Rid of Flies."

The Mother's Magazine, Elgin, Ill.

"Play and Physical Exercise — Antidotes for the Nerves of a Mother," by Herman Rupp.

"The Nervous System, the Stomach, the Heart," by John B. Murphy, M. D.

"Consumption and the Safest Way to Treat It When It First Appears in the Home," by Caroline A. Watt, of the American Women's Medical Association.

"Some Benefits of Outdoor Life," by Jeannette N. Phillips.

"The Well-Balanced Meal," by Elizabeth Carr McMakin.

"Approaching Maternity," by H. D. Fair, M. D.

"Health-Giving Plays," Helen A. Hawley.

National Food Magazine, Chicago.

"Notes on Food and Health."

"Nutritive Value of Foods."

"Domestic Science Congress at Madison Square Garden, New York."

"Rutledge Rutherford's Investigation of Food and Health Conditions in Germany."

The Progress Magazine, Chicago.

A valuable and interesting article from Mr. T. C. O'Donnell, managing editor of *Good Health*, on the "Economics of Eating."

Signs of the Times Monthly, Mountain View, Cal.

"Tooth Decay — Its Cause and Cure," by D. H. Kress, M. D.

Selection on opium entitled "China's Overshadowing Curse."

Success Magazine, New York.

"Marriage in America (the Business Girl)," by N. H. Schauffler.

"The Chambless Roadtown," Milo Hastings.

World's Work, New York.

"The Drug Clerk a Poor Doctor," by Dr. Eugene J. Johnson.

"A School for Making Healthy Boys," by Henry W. Lanier.

Employment for Cured Consumptives.— A Jewish tuberculosis sanitorium has provided for open air work for its cured cases. It encourages them to move into the country and run truck, poultry, or dairy farms, and agrees to buy all their produce.

A New Use for the Telephone.— A London despatch informs us that a physician on the Isle of Wight, by means of an apparatus attached to the telephone, was enabled to hear the heart sounds of a woman patient in London, one hundred miles distant.

Cause of Cancer in Fishes, to Be Investigated.— President Taft, April 9, sent a message to Congress asking for an appropriation of fifty thousand dollars for the establishment of a national laboratory for the investigation of the cause of cancer in fishes.

No Quarantine for Smallpox.— Such is the trend of medical opinion in some sections. An Iowa medical society recently passed a resolution recommending that quarantine for smallpox be abolished. The idea is that as long as there is a quarantine, people will depend on that, and neglect the greater security of vaccination.

"Tuberculosis Talkettes."— The Rochester Public Health Association has decided to conduct an educational campaign by giving mental pabulum in divided small doses. Realizing that the public has not the time nor the patience to read through large works on tuberculosis, they are preparing what they call "Tuberculosis Talkettes," to be published in the newspapers. The busy man wants to know all about tuberculosis, but he has not time to sit down and read over a large volume, but when he receives his information on some definite point of tuberculosis in an article that can be read in a few moments, he will take it, remember it, and act upon it. Among the topics which are considered are: "Consumption, What It Is, and Why;" "Inhaling the Germ;" "Systems That Resist the Germ;" "The Exploded Theory of Heredity;" "The Price of Carelessness;" "The Fly, First Assistant of Death;" "Destruction of Tuberculosis Expectoration;" "Safe-Guarding the Public," and so on until the series of forty talkettes has been completed.

Public Drinking Cups.— Oklahoma has passed a law forbidding the use of public drinking cups in railway stations, cars, parks, schools, and all public places.

For Civic Improvement.— McGregor, Iowa, is an energetic river town which is blessed with a Ladies' Civic Improvement Club. Scattered throughout the city were numerous fountains with cups attached with chains. The ladies of the club gave a series of market-day sales, many delicacies, and also more substantial foods, which they themselves had cooked, being put on sale. The proceeds were used to buy sanitary drinking cups for the many fountains.

Dentists and Tuberculosis.— Active steps are being taken in various places to conduct campaigns for mouth hygiene. One of the principal objects aimed at is the prevention of tuberculosis and other diseases which might gain access to the system through faulty teeth. At a recent meeting in Baltimore, the State Dental Examining Board, and representatives of the Maryland and Baltimore Dental Association, decided to conduct an educational campaign on the care of the teeth. Similar movements are being conducted in other cities.

Increase of Cancer.— At the Southern Surgical and Gynecological Association, Dr. Roswell Park stated that the control of cancer is one of the most important problems which confronts the medical profession today, and that cancer is increasing as a result of the modern methods of life. When he began work, there were annually 14,000 deaths from tuberculosis, and 5,000 from cancer in New York. Now the tuberculosis mortality has been reduced to 11,000 or 12,000, and cancer mortality has increased to nearly 8,000. Cancer is prevalent in certain localities and in certain houses. The disease is not hereditary. In the International Congress of Surgeons at Brussels [considering the subject of cancer for three days] the general belief was that cancer is infectious. The fact of metastasis, that is, the traveling of cancer from one part of the body to another, is evidence that it is infectious. Dr. Park believes that there is more proof of the infectiousness of cancer than of leprosy, and some other diseases considered more or less contagious.

Hookworm in the Middle West.— A Kansas physician has recently reported two cases of hookworm disease which came under his observation. In each case the disease developed after a trip through the South.

No Germs in Bread.— An investigation was made to determine whether bread made by tuberculous workmen contained live tuberculosis germs. The experiments showed that all dangerous germs are killed in the process of baking.

Careless Consumptives Must Get Out.— The attorney-general of Ohio has given a ruling authorizing local health officers to compel consumptives to give up work in factories when there is proof that their habits are a menace to their fellow workmen.

The Outdoor School Idea Growing.— Great interest is being manifested in the establishment of outdoor schools, and steps are being taken to establish such schools in various cities and towns. Several cities already have such schools in successful operation.

Date of Seventh International Tuberculosis Congress.— For some reason the date for this congress has been set for the last two weeks in April, 1911. This will prove a great inconvenience to American physicians who can not leave their colleges and their work at that time.

American Museum of Safety.— A museum has been established in New York City showing the various devices for the prevention of accidents to industrial workmen. This exhibit is intended for the instruction of employers and others who may be interested, with a view to the decrease of industrial accidents.

Opposition to the Owen Bill.— There is evidence that the principal opposition to the bill providing for the establishment of a national department of health has been inspired by men interested in patent medicines and proprietary drugs, men who doubtless realize that a national campaign of health education would eventually serve to diminish their gains.

Meat Diet in Tuberculosis.— A French medical writer says that the tuberculosis subject loses weight on account of increased waste, the result of fever and profuse sweats, and diminished nourishment, on account of lessened ability to assimilate foods. "The results of a meat diet are not brilliant; tolerance fails before a sufficient quantity has been taken to feed the body. Man is not a carnivorous animal in the normal state, and can not become so in the pathological state. If too much protein be taken, we get bad digestion, flatulence, and diarrhea due to intoxication."

Pollution of Milk.— An English dairy company has been convicted of diluting its milk with water which, on analysis, was proved to contain typhoid germs. The company was heavily fined.

New Tuberculosis Magazines.— A number of State tuberculosis associations have established State antituberculosis magazines. Among these are Pennsylvania, Wisconsin, Colorado, and California, also the cities of Pittsburg and St. Louis.

Educational Campaign of the Brewers.— The latest idea of the Brewers' press bureau is the presentation of libraries throughout the country of books containing their most seductive arguments against prohibition. They can well afford to give away such books.

Tuberculosis Dont's.— The National Association for the Study and Prevention of Tuberculosis has prepared a four-page card of dont's, for the sick and well, regarding the prevention of tuberculosis. These cards are furnished in any language by the association at cost,— $1.88 a thousand.

Pellagra Not Confined to Man.— It is reported that dogs suffer from pellagra, and that in them the disease runs a much more acute course, and is always fatal. The disease in the dog is commonly known as "sore mouth." There is diarrhea, mangy skin, and slobbering from the mouth.

Cause of Pellagra.— Dr. Sambon, who went to Rome from England in order to investigate pellagra, has reported that it has been proved that the disease is transmitted by *Simulium ripens*, a species of black fly. Another professor reports that he has found the cause of the disease in water. We will have to wait a while yet for the final verdict.

Enforcement of Antispitting Laws.— An investigation was recently made by the National Association for the Study and Prevention of Tuberculosis showing that hardly one eighth of American cities enforced antispitting ordinances. As a result of this investigation there is a tendency toward increased vigilance in this matter, the citizens often taking the initiative.

Inebriety Bill.— A bill recently passed by the New York legislature provides that all inebriates, whether from alcohol or other narcotics, shall be provided with hospital treatment, and work in the open air. A fine is inflicted only after the third offense. This new attitude of the law, regarding the inebriate as an invalid rather than a criminal, is in keeping with modern medical research. The inebriate needs help, not condemnation; treatment, not imprisonment and punishment. If any one should be punished, it is the man who has made him an inebriate.

Course in Public Health.— The University of Pennsylvania is to establish a course covering one year, in sanitary engineering, public water-supplies, sanitation of buildings, inspection of foods, open to medical graduates. It is also the intention to install courses in tropical medicine, protozoology, and entomology, subjects which are yearly coming into greater importance in connection with preventive medicine.

The United Tuberculosis Congress.— At the meeting of the Association for the Study and Prevention of Tuberculosis held in Washington, May 2-4, resolutions were passed favoring the establishment of a national health department, and protesting against the action of Oklahoma in excluding physicians who have had tuberculosis, and against the Nebraska law which requires indigent tuberculosis patients to take serum treatment.

The Verdict of a Track.— In a recent walking match held at Kiel, Germany, the first four winners were abstainers. Of the ten prize winners, six were abstainers, and two of the others had lived entirely abstinent for months before the contest. Of the twenty-four abstainers who entered the race, only two failed to reach the goal. Of the fifty-nine non-abstainers, thirty failed to reach it. The man who desires to be efficient will be wise to let alcohol alone.

Skunk Bite Causes Rabies.— Dr. Yount, of the Columbia Hospital, Washington, D. C., reports that the skunks of Arizona are to some extent infected with rabies, and that those that are affected are likely to bite human beings, which is not the case with a skunk ordinarily. For this reason the doctor believes that when a skunk bites a person, the Pasteur treatment should be instituted immediately.

The Relation of Alcohol to Infant Mortality.— J. H. Mason Knox, Jr., A. M., M. D., in a bulletin issued by the American Academy of Medicine, February, 1910, says: "Because of the abuse of alcohol by parents, thousands of children are still-born, and as many more are poisoned in the womb by their mothers. Is it not our duty as medical men to make these facts known, for the chief evil in it all seems to be ignorance?"

School Dentistry.— The city of Somerville, Mass., has opened a dentistry dispensary to which the pupils of all the schools may go on certain days of the week, and have their teeth cleaned and filled for a nominal fee — five or ten cents. Thirty-two dentists have volunteered, each of them to give half a day a month for this work, free of charge. The children are also to receive instruction in the proper care of teeth.

The House-Fly

(Concluded from page 400)

the attic were literally darkened with them. Breeding they were not, for the simple reason that they were tightly shut in the attic, and that the attic was perfectly dry and clean. The housewife was an excellent housekeeper, and in all things under her control I found perfect order.

An examination of the insects showed that most of them were not house-flies, but flesh-flies and cluster-flies. This latter insect is but little understood, and is supposed to breed even in wet earth.

A cross-examination of the owners of the farm revealed the fact that the previous season many hogs had died in the neighborhood from the cholera, and that they had been somewhat neglected. This, of course, accounted for the unusual number of flesh-flies in the neighborhood during the fall season. This excessive brood simply took refuge in the most convenient shelter it could find, which happened to be the farmer's attic.

The impression which the farmer had relative to the pests' breeding in the attic had its origin in the fact that the flies were of different kinds and different sizes. I had some difficulty in explaining that when an adult fly emerges from its pupa case and dries its wings, it has its full growth. The alleged "young ones" were adults of a smaller species.

It is a big task to teach a nation to be clean. And yet that is the problem which we are to face in America if we are to lessen the fly evil. Nor can we teach a nation or an individual to be clean until that nation or individual wants to be clean. Possibly a dissemination of knowledge regarding the real nature of the house-fly will prove to be an incentive to individual and national cleanliness, but it is certain that until we have that national cleanliness, we shall continue as a fly-pestered country.

The Spontaneity of God's Great Out-of-Doors

(Concluded from page 406)

hearted, big-souled man or woman, spontaneous, ready, willing, who clasps you by the hand speedily, who looks you in the eye readily, who pours the wealth of his intellect, his soul, his experience over you in a generous flood, who shines warmth and light into the darkest recesses of your life, who sends sweeping tides of great winds of purity and love into every nook and cranny, every corner and hidden place of your life, who is frank, honest, open, unaffected, sincere.

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The Magazine of Nation-Wide Interest

The May issue of the NATIONAL MAGAZINE throws up its hat and cheers for the great Panama Canal. Joe Mitchell Chapple has just returned from a visit to the Isthmus and the major part of the magazine is given over to an intensely interesting and beautifully pictorial account of this most gigantic enterprise of the Twentieth Century. The NATIONAL will be read from cover to cover. Speak to your newsdealer now about reserving you a copy of Joe Chapple's NATIONAL MAGAZINE for May. Price 15 cents. Out April 20.

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"Too Much House"

"Too much house," says the well-known author and lecturer, Jacob Riis, in his introduction to "Out-of-Doors" by M. Ellsworth Olsen, "is the key-note of this book." Mr. Riis farther says, "The note is sound. Civilization has been making of the world a hothouse. Man's instinct of self-preservation rebels; hence the appeal for the return to the simple life that is growing loud; hence such books as this that tell plainly what we have been trying to hide and excuse with long pleas for the educational value of play, namely, that the boy is a young animal, that needs to grow a sound body, or all the philosophical fripperies and furbelows we are trying to fit on him will breed down the race, not up."

YOSEMITE FALLS

Frontispiece in "Out-of-Doors"

From the chapter entitled "Too Much House," we quote a few striking sentences as follows: "The time is surely coming when the sleeping porch will be as general as the bath room. The common sense of humanity demands it. Why in all reason should one swelter in a stuffy room, which the midsummer sun, beating down upon it all the day, has raised to almost furnace heat, when just outside the walls the air is cool and pleasant? Our bedrooms on hot nights are veritable torture chambers. Half the enervating effects of the American summer arise from sleeping in hot rooms, which only begin to cool off toward morning, when we are about to leave them."

A very interesting chapter is "Around the Camp-Fire." From it we read, "To the veteran outdoor man, whose bedroom is lighted by the stars, the close air and so-called comforts of a modern house are anything but desirable. An old gipsy was once asked if he did not think he would like to spend his remaining years in a house. He replied that as he was getting pretty old, and his chest was none too strong, he could not undertake such a risky experiment. 'A young Gipsy,' he thought, 'might manage it, perhaps, and seem none the worse for it; but not a man of eighty-four.' Would that more of our old men shared with this child of nature his apprehensions of the dangers of confinement in a house!"

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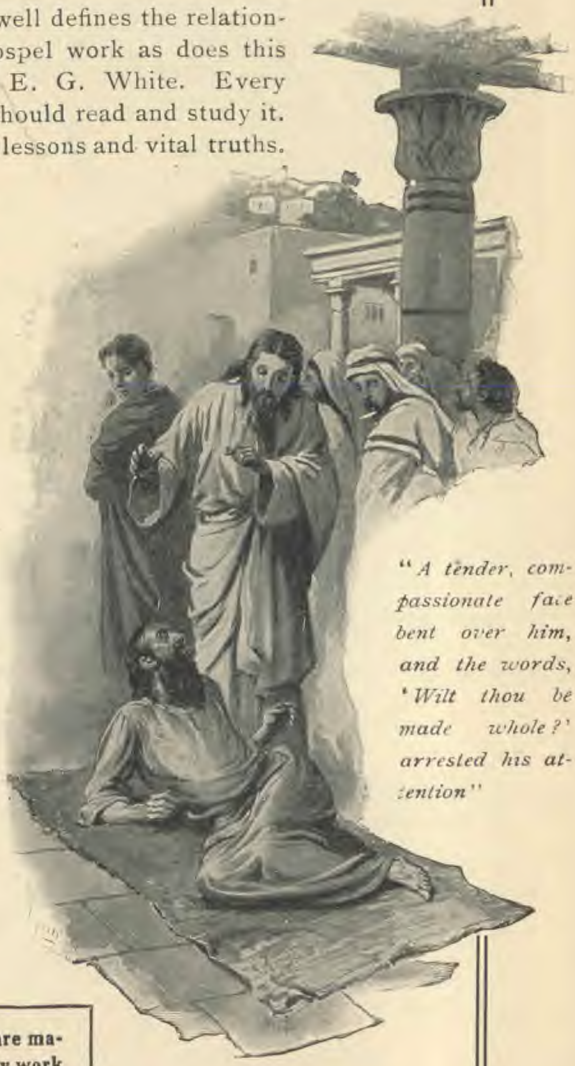

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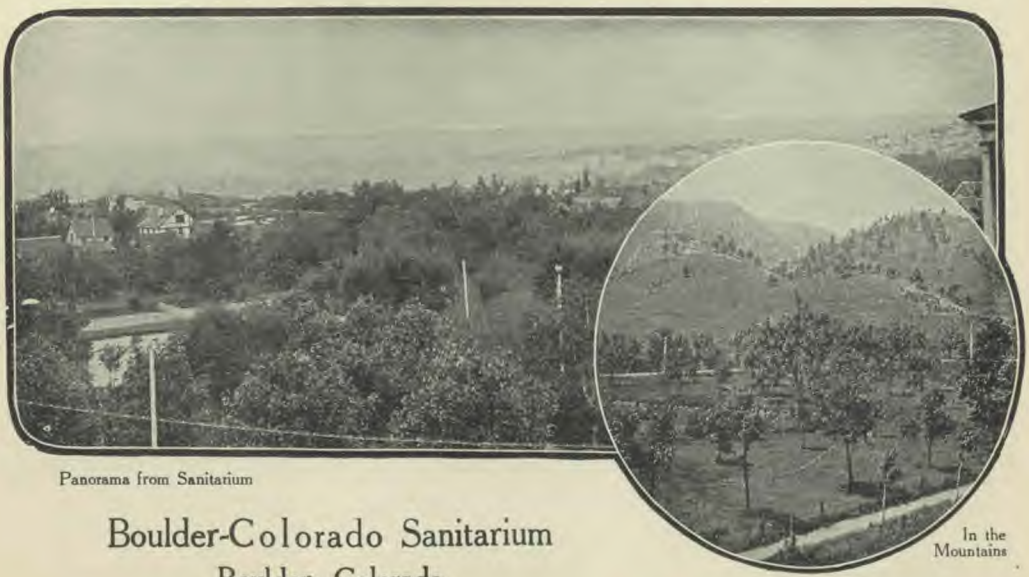

Panorama from Sanitarium

In the Mountains

Boulder-Colorado Sanitarium

Boulder, Colorado

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A View on the Lawn

The Dining-Room

A Group of Nurses

Some of the Tents

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