

The Battle of Lake Erie

Which was fought on Sept. 11, 1813, near Put-In-Bay, N. Y., from an old print. Insert is Commander Oliver Hazard Perry, who commanded the American fleet.



The British flotilla was commanded by Captain Barclay, who fought with Nelson at Trafalgar. In the picture, Perry's flagship, the Niagara, is seen breaking through the British line. The Niagara has been raised from the bottom of the lake, and will be put into shape to tour the great lakes. This picture is unique in its connection with the plans now being carried on to celebrate the centenary of peace between Great Britain and the United States.

ALREADY BOOKED.

A small town boasts a female preacher. One day while working in her study she heard a timid knock at the door. Answering the summons, she found a young German on the steps. "Good afternoon," she cheerfully remarked. "What do you wish?" "They say der minister lift in dis house, hey?" "Yes, sir." "Yes, Veil, I want me to git married."

The lady's hair was beginning to silver, and the German glanced at it. Then, without comment, he hurried down the walk. "Will you come back?" she called after him. "You gits no chance mit me," he answered. "I don't want you; I haf got me a girl already!" Post.—Thompson has gone in for settlement work and then introduce outside mercenary to do the fighting. Parker.—Helping the poor or bill-collecting?

THE NEW PUBLIC HEALTH

The Advertiser Bureau of Public Health Information. QUESTIONS. ANSWERS. COMMENTS. Conducted by Institute of Public Health, London, Ont.

Questions should be addressed "The New Public Health," care The Advertiser, London, Ont. Private questions accompanied by a stamped, self-addressed envelope, will receive private answers. Medical treatment for individual cases cannot be prescribed.

A HOMOEOPATHIST.

I have read your articles on immunity with great interest, but should like to ask you one question. It seems to me that your serums and vaccines derived from the germs that produce the disease, are nothing more or less than Hahnemann's theory "similia similibus curantur" was not the great founder of homoeopathy quite right? Do you not use like to cure like in the vaunted scientific medicine of today? A straight answer will be greatly appreciated.

Answer.—This question is often asked, and, at first glance, seems to propound a not unreasonable idea. But Hahnemann's teaching of "like cures like" as I understand it, was in reality exactly the reverse in principle of the modern vaccine treatment. He meant by "like cures like" that drugs which produced symptoms like the symptoms shown by the patient, would cure the patient. Thus, as a crude illustration, if a man showed headache and sore throat, a drug which taken in health, produced a like headache and sore throat would, in disease, cure it. Hahnemann did not concern himself as to what caused the headache or sore throat at all; and the drug he gave as cures were not and could not be the same substances that caused the diseases, unless a man poisoned by a certain drug should be treated by the same drug.

Modern vaccine treatment does not concern itself with symptoms, except as the symptoms may indicate more or less the particular germ at work. The first step in vaccine treatment is to isolate that particular germ in pure culture, to get it growing by itself, as a man tries to get his cabbage patch all cabbages, that is, free of weeds. Then this germ is killed, and the dead germs placed in the body of the patient. This method is far better for prevention than for cure and is useless for cure as a rule in the case of infections, although sometimes of use in chronic diseases as may easily be seen. The fact is, that the body, unaided, "cures" the vast majority of infectious diseases, by making antibodies, which poisons the germs produce. Vaccines supply the dead germs for the body to practice on, so as to induce the body to have a supply of antibodies ready-made against the day of infection, instead of waiting to make them after infection has occurred; occasionally, even when the body is already, but sluggishly, responding to an existing natural infection, the vaccine may stir it up to work more briskly.

Living germs would be better to use as a preventive vaccine than dead ones, for the body makes more and better antibodies (as a rule) to living germs, and besides, it is living germs, not dead ones as a rule, that the body will have to face, later, when the true infection occurs. But the trouble with using living germs is that they may "get away from" the body forces.

multiply beyond expectation, and over-supply of antibodies made, hence the risk of using living germs is almost as great as, sometimes greater than, the risk of suffering a natural attack of the disease. In this sense is like putting militiamen through a sham fight for training. It is not much like real war, still it is far better than no preparation at all.

Suffering a real disease, in order to get protection from it, is like precipitating a real war now, so as to train the militia for a possible war later, hoping that thus there will not be any further war at all.

Hahnemann's idea was very different. He would not train the body through war or even through sham fights to protect itself, but he would wait until the war began and then introduce outside mercenaries to do the fighting.

Modern medicine has recognized just one such "foreign mercenary," of vegetable origin, that is, quinine; and the main difference is this. The kind of invader, that is, malaria. Two or three mineral treatments resemble this in principle. Finally, the symptoms produced by the material used for vaccination have not the slightest resemblance to those produced by the disease, except as all diseases of an infectious character resemble each other. In serum treatment, the main difference is this. The antiserum is prepared beforehand just as in vaccination but not by the human. It is prepared by some animal, thus supplying the antibody ready-made in the animal's serum, to be used in the human by injection.

To summarize: Hahnemann gave some drug, belladonna, Bryonia, Atropine, etc., derived from some plant as a rule, and used because and only because it was supposed to produce symptoms like those of the disease in the patient; i.e., the remedy was practically always different from the cause of the disease.

Modern medicine in vaccines gives the same germ (killed) that (living) produces the disease; and not as a remedy, but as a stimulant to induce the body to make the remedy itself; there is no attention paid whatever to likeness or difference in the symptoms produced by the vaccine and the disease. Finally Hahnemann professed to find that the smaller the dose, the more powerful the effect. There is no rule in the vaccine or serum treatments to correspond with this, indeed the facts are quite the reverse.

W. H. HILL.

A. B. C.

Do you not think that it would be safer to cook cow's milk to prevent the spread of "cattle tuberculosis" as well as to kill the germs of "human tuberculosis" which may get into the milk from persons handling it who have "human lung tuberculosis"?

Answer.—Cooking cow's milk is wise, not to prevent tuberculosis only, but

also to prevent any other infection from conveyance through milk, and also merely to preserve the milk from souring.

Boiling will kill all ordinary disease germs, also the germs that sour milk. But it does not kill all the germs which milk usually contains. There is a third group, including the putrefactive germs, and of this group boiling kills only the "adult" forms. Some of this group are able to and do frequently form "spores," round oval condensations of themselves, in which condition they can live for years, not feeding or growing or multiplying but still alive and capable at any time, if conditions become suitable, of growing out into the original adult stage again. While in this "spore" stage, they may survive even boiling. Then when the milk cools, if it does not cool too much, the spores grow out into the adult form, and the adult forms begin to feed, grow, and multiply at a tremendous rate, producing the milk. Hence boiled milk should be promptly cooled and then kept cold, right against the ice, not to prevent souring, but to prevent the spores from budding out; thus avoiding putrefaction.

There is a bacteriological trick by which even the spore-forming bacteria can be killed by boiling. It seems rather a mean trick, because it takes advantage of the spore's confidence in their surroundings, when the milk is cooled. After they have grown out into the adult stage, just boil the milk again! If all the spores have developed into adults, this second boiling destroys the spore-forming germs since they are no longer now in the resistant spore stage. Years ago this was the routine method bacteriologists in general could use to kill spore-formers. Now a better and quicker method, only available in bacteriological laboratories or hospitals, as a rule, is this: Not boiling the milk, which gives a temperature of 212° only, but putting it under steam pressure, and raising the temperature to about 250° F. This kills spores and all in one operation.

H. W. HILL.

ICE CREAM.

Is pure ice cream nutritious? What are the dangers in eating ice cream that has not been carefully handled?

Answer.—Ice cream, well made from pure materials, is just as nutritious as the cream and eggs, etc., it may be made of. If made from skim milk, or other things, it has of course the nourishment corresponding to those, not to cream and eggs. The dangers in eating any particular ice cream are the same as the dangers in eating the particular cream, etc., that it was made from. Unlike natural ice, which in freezing purifies itself by throwing the germs down into the cream below it, ice cream has in it almost all the germs that were in the cream, etc., beforehand. You can see this must be so, for ice cream is not frozen slowly, from the top down, like natural ice on a pond, but quickly and with constant stirring, which mixes in the germs that might have been thrown out, or down to the bottom, if the cream froze downwards as water does. Again, natural ice takes weeks, or even months, to freeze, and during that time, as well as afterwards in storage before use, any germs not thrown out in freezing tend to die out. But ice cream being eaten as a rule almost immediately, gives little time for the germs contained in it to die.

It would be amusing, if it were not pathetic, to hear the fuss that people make over using ice in drinking water, while they contentedly swallow as lot cream far larger quantities of liquid containing thousands of times as many germs; a mixture quite as likely to contain typhoid or dysentery germs as ice is; and many others also, tuberculosis, scarlet fever, etc., which never have been traced in water, or even alleged to enter ice at all!

Cold does not kill germs, contrary to general belief. It is true that it makes them inactive, but for that very reason it prolongs their life, although it shuts off the changes they produce. The bacteriologist who wishes to keep a culture alive for a long time puts it into the ice box. This is to prevent

it feeding and multiplying, for when it does these, it produces excreta and the excreta, accumulating, kill the germ. But disease germs, in milk or water, and themselves in very uncongenial surroundings; they grow, if at all, for only a very few hours; then begin to die off: cold keeps them living longer, both in milk and water than they would live if kept warm. But even so, they die off very fast.

Perfectly fresh, good milk, inoculated with disease germs and kept warm, is for a brief time a first rate place for many kinds of disease germs; and the chances are that the germs in milk, which are almost always present. Very soon, generally in a few hours, these other germs that sour milk, growing much faster than the disease germs, make acid enough to kill the disease germs out. If, on the other hand, perfectly fresh good milk is kept cold, any disease germs put into it will live longer than if the milk is kept warm, but will not multiply; and after time die out of themselves. We can hardly know just why—homosick for a live human body to grow in, perhaps!

That ice cream is harmful, simply because it is cold, is an old tradition that thousands of people have punctured every summer for years back. Doubtless a very large quantity, bottled wholesale, when the consumer is hot and weary, may shock the system, but taken slowly it does no more harm than the same things eaten unfrozen would produce.

There is one thing to remember: ice cream, once frozen, then allowed to thaw and frozen again after standing liquid for a time, sometimes produces a form of ptomaine poisoning. Just how the freezing and thawing works out to the chances are that the ptomaine germ in the fresh cream is frozen up before it has made its poisons. In this form it does little harm as a rule. But when the cream is thawed, the ptomaine germ becomes active, manufactures its poisons, and on the second freezing, the poisons are ready for business as soon as the cream is swallowed.

Sometimes, perhaps, the ptomaine germ is in the fresh cream, but is put into it by some one handling the cream, in freezing it, setting it out, or even after it thaws. H. W. HILL.

ANNOUNCEMENT.

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Millions of Dollars Spent Exterminating Prairie Dogs

Southwestern States in Fight on Rodents, Greatest Destroyers of Grass and Crops.

Whoever has visited the Bronx Park Zoo cannot have failed to notice the prairie dog exhibit in one of the fenced-in lots near the southwest corner of the grounds. The enclosure is dotted with dozens of queer little dirt mounds, pierced each in the centre by a craterlike opening. Each mound marks the entrance to a prairie dog den or hole.

If it is a fair day, Mr. and Mrs. Dog and from one to a dozen of their progeny are to be seen sitting upright above their subterranean homes, barking or yelping at passersby or busily engaged in extending the cleared areas that mark their yards. It is interesting to watch the droll little brown rodents gnawing at the soil, or busy at work or at play. Their diligence, activity and vigilance and the sleek roundness of them are all amusing. Harmless enough they appear in their wire fence pen.

Yet down in the Southwest the prairie dog has been officially declared an enemy of mankind and a fierce pest war is being carried on for his extermination. All over West Texas, Oklahoma, Kansas and New Mexico men armed with traps of poisoned wheat and corn are going about the mound villages with which he has dotted the prairie, exterminating his kindred. Their kernels of death, prairie dog poisoning has become an established business down there.

Millions of dollars have been spent by the ranchmen and farmers in their effort to obliterate the little grass eating pest. Millions more will be spent before the fight is over. From all indications it is going to prove the costliest pest war ever waged in the United States. The reason is simple enough. The prairie dog is the greatest destroyer of grass and crops that the ranching West has ever known.

It is estimated that an average of ten dogs live in each hole. On this basis the population of this particular village would be 400,000,000 dogs, and they would consume every year enough grass to feed 1,000,000 cattle. That is only one village. That's why the region is up in arms against the harmless looking prairie dog.

The fight began in earnest about eight years ago when the Texas Legislature passed a law providing for the extermination of the pest. Oklahoma officially entered the lists through legislative action a few years later. Kansas has recognized the business, and agitation is keen for the enactment of an anti-prairie dog law in New Mexico. The whole Southwest is lining up against the lowly mound builder.

The dog poisoners maintain their own outfits and work by contract. They will bind themselves to clear the grass destroyers on from one to a mile square—the bigger the territory, the better. They will fix a time limit for their work of destruction and provide for penalties and forfeitures for every day elapsing between the expiration of the contract and its fulfillment. They will agree to a refund of stated sums for every dog found after the gangs of poisoners have passed over the grounds. That is just how certain states and scientific the business has become.

With his contract signed the dog poisoner moves into the affected territory with his outfit and goes to work. His first concern is to divide the mile square into districts, each embracing suitable proportions for a day's work of the poisoning gang.

The chuck wagon, which carries the poison, is divided into two parts. The members of the outfit, and the poison wagon, which carries the munitions of war—poisoned wheat or corn—are moved to the centre of the plot marked out for the day's work and made the basis for operations. The poisoners, of whom there are from five to fifteen or twenty in an outfit, work in each direction from the camp, scattering their poison from buckets and returning to the poison wagon to replenish their

NOTICE

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[Washington Star.]
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THE MAGIC OF PERSONAL

Continued From Page One.

needed to shine in Johnson's company, and Burke's. After him he found Macready (the most distressing infirmities of temper notwithstanding) holding his own with strength and dignity among the greatest of the Victorians. His diary is sometimes deplorable and often pathetic, but the hand that traces it has more than the elements of greatness. Our own day has given us no player in whom the force of personal ascendancy asserted itself to quite extraordinary degree. There were four extraordinary heads in England when the actor's fame was at its height, Tennyson's, Gladstone's, Leighston's and Henry Irving's; and as one of the

laureate's pall-bearers, Irvings face drew the gaze of the whole congregation in the Westminster Abbey to which he himself (dying an impoverished stroller in the provinces) was afterwards borne in semi-regal state. Never but once did his tact fall him on the stage, and in private he had a quick and quiet wit that silenced tactlessness in others. "Are you a snob?" asked a snobbish don at an Oxford dinner-party. "Oh, no," said Irving, "but I have a secretary who is."

This peculiar "personal ascendancy" is not susceptible of rigid definition. We trust, at least, that it is not for us quite unable to define it to our own satisfaction. We are sure that it resides not wholly in elevation of character, for on this point, at any rate, example is abundant. Take a glance at politics, and compare or contrast Hampden at one period and Maribea at another; Wilkes at one period and Gladstone at another; Burke one period and Bright at another. Lord Salisbury in character was the equal of Gladstone, and both were on this plane the superiors of Disraeli; but (with his fine cadences in our ear as we write) we cannot remember a crisis at which Lord Salisbury made anybody in England jump to his feet. Politics, though of course not by any means the highest test, is a fair one; and its illustrations, in the matter of personal ascendancy, are often extremely curious. An intimate study of the psychology of Parliament would be a good deal occupied with the strange, brief, fascinating career of Lord Randolph Churchill, who was as interesting and redoubtable a personality as any of his contemporaries. Gladstone's rank-and-file go down always a little in fear of him. But they were not beneath his heel; there was his courtesy and the fairly free traditions of leadership in our politics to trust in. The followers of Mr. Parnell were more so. Less his slaves; the whip of the party seldom knew his chief's intentions. A too-confident recruit (this little story is unpublished till today) had a terrible snubbing. "Parnell, old chap, what did you think of my speech?" "I am Mr. Parnell, sir, and I did not hear your speech."