

THE NEW PUBLIC HEALTH

QUESTIONS. ANSWERS. COMMENT.

The Advertiser Bureau of Public Health. Conducted by Institute of Public Health. (The Public Health of Western University, London). Established and maintained by the Ontario Government.

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

Question.—(a) What is the cause of heart failure? (b) How avoid it through hygiene? The number of deaths from this disease is appalling. There must be some reason for it. Old age especially, in either sex, is liable to it. Please account for it?

Answer.—Heart failure is a name which is the bugaboo of all health officers and vital statisticians, because it is so vague and general that it means almost nothing. In many places, death certificates giving heart failure as a cause of death are rejected by the authorities; it is not legally recognized as a cause of death at all. This is because almost everybody dies finally of heart failure in one sense, because, of course, if the heart did not stop, the patient would not be dead. What you really mean, probably, is this—way do people so often die of something which affects the heart or bloodvessels? Both must usually be considered together, and usually in association with the kidneys also. These three, heart, arteries and kidneys, form a sort of triad which determine how long people will live. It is a common and practically true saying that "a man is as old as his arteries" and the same applies to women, of course.

To attempt to explain the situation, we must begin with some elementary anatomy and physiology. The body can be compared somewhat with a city, or rather a very large and complicated but very compact, well-disciplined and efficient peripatetic factory. The bones form the framework of the movable building and in the case of the head, the walls also. The muscles are the combined furnace, boiler and machinery for moving the various parts of the factory, the head, limbs, etc.

The nervous system is an elaborate telephone plant, which keeps all the different departments in touch with each other and with the central office, the brain; there is a secondary telephone system also, which is largely independent of the brain and intended to keep the factory running without bothering the central office about such routine matters as digestion, the heart beat, etc. Then there is the digestive system, which is practically the department of supplies, and includes the cooking department in the stomach and intestines. This cooking is really a chemical process, but it is quite necessary to proper preparing of food for the body. Chemical cooking in the body itself is done by all animals. Man alone prepares his food (and not all of it, at that) by a preliminary cooking, outside the body, with fire.

The waste from the kitchen is thrown out of the body by the intestines, constituting a sort of garbage disposal system for the stomach and upper intestines. The cooked food is served to all the millions

of clamorous hungry customers waiting for it all over the body by throwing it into a system of pipes through which flows continuously a stream of water running to each customer. This stream is the blood and the pipes are the arteries. The customers (the body cells) take from these pipes what they wish in the way of food, and throw back into the stream their waste products, their household sewage so to speak.

Of course, the food the cells take out and the waste matter they put into the blood are both in solution—liquids, not solids. To make the transfer easily from customer to food-pipe or vice versa, an intermediate fluid, the lymph, exists, which bathes each customer continuously, and bathes also the tiny food pipes which run by the customer. The blood goes hurrying through the food-pipes, but this lymph exchanges with it continuously what its customer needs to eat. This transfer occurs right through the very thin walls of the very small food-pipes by diffusion.

The waste products thus thrown out into the food-pipes pass on into the small veins, which like a sewerage system unite into larger and larger tubes back into the heart. On its way around the body the stream of waste products passes through the kidneys, which may be considered the sewage disposal plant of the body, since they throw out from the body a large part of the waste matter and a great deal of water which the body no longer requires or can use to advantage. Of course, the heart is the great pump that keeps this blood stream circulating, driving it through the lungs to secure its load of oxygen, and through the intestines and liver to get its supply of food. The blood is thus constantly round and round, so that it carries the oxygen and the food to the body cells and brings away from them their waste matters for the kidneys to throw out of the body, minute after minute, hour after hour, day after day, round and round and round every half-minute all our lives long.

Now the walls of the food-pipes or arteries, which are so small and thin near the cells they supply, are very strong and thick at all other points; and in order to control and regulate the flow of blood to different parts of the body, the arteries have an automatic system for dilating or contracting, operated by the secondary, automatic, telephone system that forms part of the nervous system already described.

To understand the effect of this, suppose one set of arteries, supplying say one leg, are contracted; then the blood has more difficulty in getting to that leg and damps up more or less, which drives it in greater amount than usual to other parts of the body. But if the arteries are contracted all over the body, the blood is jammed back on the heart; that big pump must work very much harder than usual to keep the blood going as fast as usual, because it has to drive it through much smaller pipes than usual; and so the heart is strained just as the arm muscles are strained when they lift a weight greater than they are accustomed to. (The heart is muscle, of course). Now it is pretty generally believed by the best authorities that the principal causes of increased

blood pressure in the body are, not always the mere nervous contraction of the arteries, due to trying to keep up the circulation at the proper rate, but the artificial stimulation of the nerve centres to send out these orders to contract, due to poisons of various kinds, alcohol for one; also the poisons of the various infectious diseases; and again, the poisons due to fatigue and other similar things. Moreover it seems probable that the blood-vessel walls are quickly injured by these poisons and perhaps also by the high pressure itself—so that the poor heart suffers all the more; the kidneys, sending out these orders to contract, do not do such good work as they formerly could, and so the poisons are not removed as thoroughly; instead of being thrown out, they continue to act; the blood pressure is increased by their effect on the nerve centres, and so it goes from bad to worse. It is a very complicated matter. We do not yet understand all of it in every detail, and this outline is merely intended to describe some of the simplest things we do know about it now.

There seems to be good reason to believe that troubles of this kind are increasing, especially amongst people over forty. Part of it is due to the fact that we through various public health measures, inadequate as they are, are preventing some diseases to some extent and thus saving from disease some persons who in past generations would have died as children; of course, these add to the number of adults, who must all die some time. Part of it is due also to improved treatment of diseases that still occur in early life, so that children who in past generations would have died, now recover through the lungs to secure its load of oxygen, and through the intestines and liver to get its supply of food. The blood is thus constantly round and round, so that it carries the oxygen and the food to the body cells and brings away from them their waste matters for the kidneys to throw out of the body, minute after minute, hour after hour, day after day, round and round and round every half-minute all our lives long.

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H. W. HILL.

FIRST TITANIC PAIR TO BE WRECKED ON DIVORCE ROCKS



Mrs. W. E. Carter

[Special Correspondence.]

Philadelphia, Feb. 14.—There have been Titanic births, Titanic deaths and Titanic marriages, but here is the first record of a Titanic divorce.

Mrs. William E. Carter, well-known in society both sides of the Atlantic, is suing "Willie" Carter, clubman and poloist, for divorce. The Carters, with their two children, were rescued from the Titanic two years ago. Carter escaped in the same boat with J. Bruce Ismay, managing-director of the White Star line.

For some years the Carters have maintained homes at Byrn Mawr and Newport. They have entertained lavishly, and have been prominent figures in many notable social events.

Utmost secrecy attends every detail of the suit for divorce. The grounds have not been made public.

As a form of art, also, it still holds its place, for, from the time of Fielding it became evident that this limitless field for the treatment of human nature lent itself to the limitless vision of the artist; and in this respect modern English writers have learned much from France.

"But just as the artist discovered that he could so construct a tale as to make it a means of imparting his vision of life, so also the moralist, the philosopher, the theologian, the politician and the social reformer seized upon the novel as a means of teaching, informing and persuading the many who were open to the appeal of true fiction."



Auguste Rodin

AUGUSTE RODIN, Great French Sculptor who has been seriously ill.

Next To Consumption.

There Are More Deaths From PNEUMONIA Than Any Other Lung Trouble.

Pneumonia is nothing more or less than what used to be called "Inflammation of the Lungs."

Consumption may be contracted from others, but as a rule pneumonia is caused by exposure to cold and wet, and there is only one way to prevent pneumonia, and that is to cure the cold on its first appearance.

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Mrs. Wm. M. Steeves, River Glade, N.B., writes: "Please allow me to express my gratitude for the presence of Dr. Wood's Norway Pine Syrup in the house, for I believe it saved our little boy's life. Three years this fall we were in the lumber woods, and it was very hard to get a doctor to us, and our little boy got pneumonia, and was very ill. The only relief he could get was to take Dr. Wood's Norway Pine Syrup, and with the combined use of the Syrup, and your British Troop Oil Liniment, he soon got better, and was around in a couple of weeks. It certainly is a great remedy."

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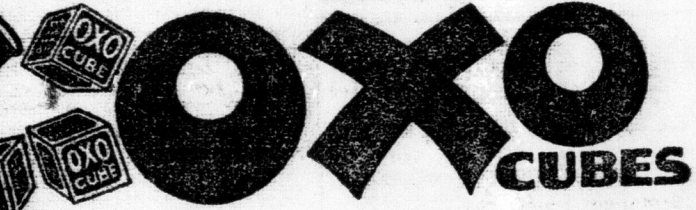
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TIDE FOILS THE SCIENTISTS.

Barge and other traffic on the Thames was completely disorganized the other morning by the tide stopping an hour before its time. Scientists had fixed 9:15 a.m. as the time of high water at London Bridge, but at 8:10 the tide began to run down, being at that moment over four feet below high-water mark.

Barges laden with oil and coal could not get up the river, the whole course of which was congested with craft. The blockage was especially heavy near Temple Pier, where Port of London officials shook their heads sorrowfully over this plank on the part of the Thames.

"A very rare thing," said one of them, apologetically, as though he were deplored the fall from grace of a relative. Bargemen and rivermen had other things to say, and expressed them loudly and forcibly, especially in addition to the absence of tide to take them along, they had to contend with a strong head wind from the southwest. Many of them had to seek the shelter of wharves until they could obtain the assistance of tugs. In some cases two or three tugs were needed. Meanwhile the tide that took the wrong turning remains unforgiven—and unexplained.

DON'T WANT ANDY'S LIBRARIES. A number of London newspapers have taken Andrew Carnegie seriously in hand this month, and begged him to cease dumping free libraries in every obscure town and village of Britain, and to give poor people free teeth instead of free books.

The outcry really arose through the strong remarks of a coroner in London. Holding an inquest on a man who had only two teeth and died because he could not properly digest his food, the coroner suggested that it would be much better if millionaires, instead of giving money for free libraries and universities, did something for poor people who have bad teeth.

"I think it would be a most useful thing," declared F. Atkins, the secretary of the British Dental Association. "There is no wholesale provision made for dealing with the teeth of the poor, and it is, of course, a great problem. The most suitable recipients, in the first instance, of any large donations of the kind, would be the leading dental hospitals of London and the provinces. The British hospital price, I believe, for a complete set of teeth is \$20, as a rule."

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"DOCKING" AN OCEAN LINER IS A HUGE UNDERTAKING

If you are standing on the pier watching the great liner come in and waiting impatiently to greet friends you have on board, you probably give little attention to the practical side of warping the vessel in.

But those who witness the docking of liners day after day can afford to make a study of the operation of bringing the ship alongside, and to them it is generally of unfailing interest, especially if they are familiar with the ships and perhaps know the captains and officers.

On her last arrival at port the Cunard liner Campania was made fast to the pier in exactly 58 minutes from the time of leaving quarantine. This was exceptionally good time. But the Campania, of course, is a comparatively small liner, and conditions had to be just right or she would not have made it in almost record time.

Ship captains say the ideal time to dock is at slack water, which is to say that the tide is just on the turn and there is no current to push against the ship and hinder a quick warping in. In the North River, where most of the big midle current running, and when a huge

ships berth, there is sometimes a six-liner gets stalled in this kind of tide waiting friends on the piers are for a long session of fuming.

The liner France has established a reputation for herself as a hard ship to dock. On a recent arrival she was at the pierhead four hours before a swarm of tugs could get her alongside. The period of slack water is so short that it is seldom the big ships make it just at that time.

The big liners always dock against the tide. That is to say if the tide is running upstream they warp in from the upper side of the slip; if down-stream they are brought in from the lower side. The explanation of this rule is simple. If they were allowed to come against the tide, the ship would be liable to a crash which would knock a hole in the ship's side, to say nothing of damage to the pier and the captain's reputation.

When the ship reaches the pierhead the pilot's responsibilities are over, and the captain takes charge of the bridge. A flag on the pier end has told him which berth he is to occupy. Tugs are waiting in the river, the chief officer takes charge of the men handling the lines in the fore-castle head, and the second officer looks after the stern lines.

Longshoremen in a small boat go fearlessly under the great ship's bows, and a hand line falls into the boat, which they quickly take ashore. This line is made fast to one of the big hawsers on the fore-castle head, which the men on the pier are soon hauling to the string-piece. It is made fast, and the chief officer orders his men to take in the slack on the steam capstan.

In the meantime the vessel's bow has been brought gently against the pierhead, and many tugs are puffing away, trying to get her straightened out to go into the slip. The captain superintends things from the bridge.

As she comes slowly in, to the vociferous joy of those waiting for homecoming friends, the lines are shifted according to the orders of the chief officer and the pier superintendent, who is in charge on the string-piece and wears as many brass buttons as anyone, being generally a full-fledged captain. Further up the string-piece go the gangs with the heavy hawsers, shifting them from bollard to bollard, and very soon the second officer is putting out his stern lines.

One of the cleverest and most scholarly of English critics, R.A. Scott-James, has set himself the task of discovering the secret of the success of the modern novel. He has confronted himself with the fact that the present-day author no longer depends upon the patronage of the rich; that he seeks the suffrage of the many in preference to the favor of the few, and asks himself this question: "It is because the novel is the product of a popular art, an art which appeals to the ordinary man, that we may be certain it is very far from having run its course."

CRITIC POINTS OUT WHY NOVEL IS READ

Modern Books Contain Not Only Stories, But Are Public Platforms.

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"Nobody can fail," he says, "to be struck with the fact that it is through a novel that Wells discusses problems of social science, that Galsworthy has criticized the fashions and oligarchy, and J. A. Revmort, an author has exposed the abuses of industrialism. Miss Correll discusses theology, and J. A. Revmort, an author not so well known as he ought to be, has unfolded a system of metaphysics."

"Only the play," observed Scott-James, "can compete with it in popularity, for the play is not so elastic a medium for the conveyance of anything that the author may wish to communicate. The novel is not only a form of art for exhibiting a character, it is not only a story; it is also a public platform—and it is sometimes the most human, and therefore also the most effective mode of haranguing and persuading the crowd."

In the end Scott-James decides: "Dickens and Mrs. Humphrey Ward are sufficient to explain to us why the novel has become ubiquitous. As a story pure and simple it still holds its place and retains the affection of the ordinary man and the ordinary

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