grossly inconsistent we are! When, for the sake of gain, a Missouri physician administered typhoid germs to some of his relatives, thereby causing six or eight illnesses and one death, we

stood aghast, called the

physician a murderer, and

apped him into prison for life. And then, during the Spanish-American war, twenty-five hundred of the boys khaki were needlessiy slaughtered. many of them by typhoid, we denounced a scathing terms those officials whose essness and incompetency caused tragedy. But we hear with absoiste indifference the statement that sarces needlessly causes more than parly the pollution of our typhold illnesses and 15,000 We pay no heed to the fact that year after year in the United seven times as many people are sadlessly ill of typhoid fever as there were soldiers wounded in the battle of Gettysburg, and three times as many sons needlessly die from typhoid er as met death in that tragic strug-

it is the old, old story of the mote and the beam. We do not see the enornity of this terrible wrong, because we

pe ourselves the authors of it. We are just responsible for those 15,000 yearly deaths our army officers were for the tragedies our Spanish war camps. And our motive just as mercenary as was that of the physian who gave typhold germs to gain a hertage. For we, too, are actuated by financial ons: we are unwilling to pay the price water purification. So we continue to smite he rock of a polluted water supply and there mshes forth sewage. And when our children isk for water we give them poison.

for domestic use-water must be practially free from pathogenic germs, color, sediment, odor, taste and turbidity. Hardness pakes laundering difficult. Iron spoils linen. Carbonic-acid gas turns water pipes brown. ligae make water taste bad. Water supplies fifer widely as human beings, "Pure, whole-sme water," the term set forth in so many water contracts, is, then, wholly a relative erm. Really pure water is a rare thing, because there hardly exists in nature water that not contain some foreign ingredients. does not contain some foreign ingredients.

Not all of these are harmful, however, so that rater that is fit to drink is as common as eally pure water is rare. So that, generally peaking, the question of a good water supply a merely a question of being willing to spend the money necessary to obtain it. Hence there ought to be no community in the United States that does not have a plentiful supply perfectly wholesome water.

Anything but wholesome, however, is the lity of the water that all too often we get. Dr. F. W. Shumway, reporting m water conditions in Michigan, says in part: Of the ninety-nine replies received, 79 per ent reported the water as good, 11 per cent sfair, and 10 per cent as of bad quality. . . .

the replies from 124 localities indicate that 48 per cent of these localities the public supplies are in danger of contaminawater supplies are in danger of contamina-tion." Dr. Q. O. Sutherland, discussing water omditions in Wisconsin, says that in his state bearly every stream used for any kind of supply is contaminated to some extent by wage." Health Commissioner G. A. Bading, peaking of Milwaukee's water supply, says hat most of the city's water comes from Lake chigan, but that there are still 5.000 wells ce, 91 per cent of which have been hown to be contaminated. Lake Michigan the source of water for many other towns tear it. One of the tributaries of Lake Michican is the Grand Calumet river. And here is what Health Commissioner W. A. Evans, of licago, has to say of the Grand Calumet: The greater part of the sewage from the mainess and residential districts (of Hammond, Ind.) empties into the Grand Calumet, which, as it flows through Hammond, is alhost unspeakably vile and putrescent. And his stream empties into the lake only 3,000 vard Bartow, analyzing conditions in Illinois, tays that "an examination of the untreated ake water shows that unsatisfactory water is requently delivered at Evanston, Lake Forat Glencoe, North Chicago, Waukegan, Wilette and Winnetka. . . . And that the wasupplies of all cities which use unfiltered the water are shown to be impure at times." and this condition of the water supply may be taken as typical of the entire country. A by considerable proportion of our drinking tater is absolutely unfit for human consump-

Criminal negligence is the sole and only hase of such a condition. We dig a cesspool tide well in the same yard, and the contents the one seep through the earth into the of well hole, and the rans wash the filth hom the former into the latter. We defile the water of the ground so that every rainstorm vesps the defilement into our streams. Did In ever stand at the edge of a barnyard and ich the rain falling from the roof of the am and pig pen to the manure piles below, my accumulating in pools of reddish black, Mi draining away into a nearby stream, and a on into some one's drinking water? Or you ever stood by a river bank and stched a sewer belching forth its infinitely are harmful human corruption? The idea drinking such nauseating stuff is not pleas-It; but that is exactly what millions of us de doing. Like the dog, we have turned to vomit. For, to quote Theodore Hor-Chief Engineer of the New York State ealth Department, "We pump filth into a than by one pipe, and by another pipe we hap it out again to drink."

at me give you some concrete instances laow our drinking water is defiled. In rural York inspectors from Ithaca found a ler, who patterning after Hercules' methof cleaning the Augean stables, had built barn directly over a large brook, which aread away all his stable manure. This was one of the sources of Ithaca's wa-

Bad Water vs. Good Health LOUIS EDWARD THEISS COPYRIGHT BY PEARSON PUB. CO. GERMS · OFTEN REACH DRINKING WATER. C.CESS POOL TM. LAYER OF ROCK Albany, N.Y. Binghamton, N.Y. W. WASHWATER HOW SUPPLYING A CITY WITH GOOD WATER LESSENS SIGNESS AND DEATH Take Pittsburg, where, as we

is a string of good-sized towns-Plymouth. Wilkes-Barre, Wyoming, Bloomsburg, Nanticoke, and others, all of which empty sewage into the river, and a number of which take their drinking water direct from the river. Wilkes-Barre does, and its pumping station is on an island in the river. the stream overflows, as it To be suitable—that is, to be potable and does every spring, the pumpwell is flooded with the foulest of water-the roiled river flow containing suspended sewage and the reeking, sulphurous waste of coal mines.

They make an effort to clean this pump-well. Perhaps they succeed and perhaps they do not. The point is that the expenditure of a little money would protect the pumping station from inundation.

New York state has the same tale of pollution to tell. Albany, Cohoes, Dunkirk, Lock-port, Niagara Falls, Ogdensburg, Oswego. Tonawanda, Watervliet, and other cities drink river water that is grossly polluted by the sewage of cities farther upstream. And I have seen dozens of photographs of filthy cow-sheds and barns, the drainage from which polluted the watershed for New York City.

In Illinois fifteen towns north of Chicago empty sewage into Lake Michigan, and nine of them draw their drinking water back from the lake. And what is true of Pennsylvania, and New York, and Illinois, is also true of other states. Particularly is it true of the south. From the Atlantic to the Pacific, from the Gulf to the Lakes, our people are needlessly drinking polluted water.

What is worse, water pollution is on the in-rease. "With the rapid growth of our popu-tion," says Alec H. Seymour, Secretary of crease. the New York State Board of Health, in a recent bulletin, "the defilement of our streams also increases. Some of our finest streams and lakes are being rendered unavailable for boating, bathing, fishing, and domestic use. They are of no value except as cesspools."

Typhoid fever one cannot contract without taking into one's system germs that have been voided by a typhoid patient. These germs get into the body through the mouth, pass through the stomach into the intestines, and are carried through the body by the blood They leave the body through the bowels and in the urine. Sometimes infection is carried contact or through vegetables and milk; but the common channel of typhoid transmission is through our water supply. "In order that serms could find entrance into drinking water," to quote Dr. Howe again, "there must have been carelessness in caring for the body wastes of previous victims." And this carelessness, as we have see most part in allowing our water sources to be polluted with sewage.

In consequence, typhoid, winter cholera, and diarrhoea are most prevalent along water courses used for both sewage disposal and water supply. Conversely the typhoid rate of any town continuously using a given water supply fairly represents the sanitory quality

of that water supply.

The truth of this will be seen by a comparison of the typhoid rates of towns using clean water with the rates of towns using polluted water. In Michigan, for instance, Allegan, a town of 2,795 population (in 1904) with a pure water supply, had, between 1889 and 1906, 32 cases of typhoid and 4 deaths. South Haven, a town of 2,767 inhabitants, with water drawn from Lake Michigan within 100 feet of a sewer outlet, had in the same period

245 cases and 24 deaths. Manistee, with 12,320 population and pure water from wells, had during these same years a typhoid rate of 15 100,000 population; whereas Menominea, with 10,666 population and polluted water from Green Bay, had a typhoid rate per 100,000 of 84. Hartford, Mich., with 1,246 population and impure well water, had, between 1889 and 1906, 24 typhoid cases and 7 deaths; whereas Montague, with 1,021 population and pure well water, had in the same period only 5 cases and 3 deaths. Again, Benton Harbor, with pure water from deep wells, had a death rate per 100,000 of 17.8; Grand Haven, with pure well water, a rate of 13.8; and St. Joseph, with pure lake water, a rate of 12.8; whereas the following New York towns using polluted river or lake water had for ten years-1899 to 1908-these typhoid rates: Lockport, 48.4;

1900 to 1907, that averages 127 per 100,000. Before the typhoid rate of cities that have been scourged with epidemics, the high typhoid mortality of such cities as Pittsburg and Niagara Falls dwindles into insignificance In Watertown 44 out of 582 cases were fatal; in Ithaca 82 out of 1,350; in Pittsburg 432 the ralley of the Susquehanna there out of 5,265. In Plymouth 114 out of 1,104 per-

Oswego, 49.4; Ogdensburg, 54,6; Cohoes, 84.8;

Niagara Falls, 132.9; and Pittsburg, using

polluted river water, had a typhoid rate, from

PHOTOGRAPHED THROUGH MICROSCOPE sons died: in Lowell 132 out of 550; in Lawrence 34 out of 141. Of 514 cases in New Haven fatally. resutted had 56 deaths and 1,270 cases. In Scranton there deaths and 1,115 cases; in Cleveland 472 deaths and

TYPHOID GERMS AS SEEN

3,443 cases; and in Philadelphia 1,063 deaths and 9,721 cases. In every case the death rate has been terrible, rising, in many instances, to several hundred per 100,000 population.

The U. S. Census Bureau report for 1908 shows 11,375 typhoid deaths in the registration area, and for 1909 there were 10,722 deaths—an average of about 11,000 a years. The registration area includes only 51 per cent of the total population, and does not include the South, where the typhoid rate is very high. In ten southern states the average rate has been 79. "Twenty thousand deaths a year," says Dr. William Guilfoy, Registrar of Vital Statistics of New York City, be a very conservative estimate of the total annual typhoid mortality." Certainly this is a conservative estimate, for the complete census of 1900 showed 35,379 typhoid deaths that year. For the sake of being conservative, however, let us take Dr. Guilfoy's figures. They are large enough.

The dead, it has long been held, amount to not more than one-tenth of the total number of those "But recent studies," to quote Mr. George C. Whipple, "indicate only one death in 15 or 18 cases." If we allow one death for every twelve cases-an estimate that Dr. Guilfoy says is entirely within the mark-we shall have the tremendous annual total of about 250,000 cases. Think of it-a quarter of a million people yearly stricken with typhoid!

Recall the largest parade you ever saw-say those serried ranks marched past hour after hour until your eye grew tired of watching them. Then multiply that parade by ten, and imagine what an enormous army 250,000 persons would make. That is exactly the size of the army, recruited anew every year, that this country forces to fight-typhoid fever.

other army, this army, too, costs Like any money. In this case, though, the cost is in the form of economic loss. Statistics compiled by Connecticut Board of Health show that typhoid carries people off in the years of their greatest earning capacity, 41 per cent of the deaths occurring to persons between the ages of 20 and 40, and 60 per cent to persons between 10

and 40. The economic loss thus caused reaches a staggering total. The cost of the epidemic at Plymouth, it is shown by Professor Mason, amounted to more than \$115,000, divided as follows: Loss of wages of those who recovered ... \$30,020

Cost of caring for the sick...... 67,000

In making this estimate, however, allowance was made for the loss of only one year's earnings. An examination of an insurance mortality table shows that the man who dies before he is forty dies before his time. Hence his death represents a loss, not of one year's income, but Five thousand dollars is the sum at of many. which a life is usually valued in reckoning economic loss. The typhoid loss is based only on number of those who die. As Mr. George Whipple points out, there is an added loss occasioned by non-fatal typhoid illnesses that should also be taken into account. The average period of typhoid convalescence, as figured fro cases in a Pennsylvania hospital, is 43 days. Hence loss of wages plus cost of medical attendance would easily average \$100 for every person who recovers. If ten recover for one who dies, then an extra \$1,000 must be added to the \$5,000 allowed for each death, making the total economic loss caused by every typhoid death

Figured on this basis the loss to many munities amounts to millions of dollars yearly.

have seen, the typhoid rate was 127 per 100,000 population. Pittsburg is a city with a population in excess of 350,000. Hence its annual death roll from typhoid must have amounted to 31/4 times 127, or something like 444. \$6,000 a life, this death roll will cost Pittsburgh \$2,664,000 a year, or \$26,640,000 every decade. And the loss to the entire country, figuring the typhoid deaths at 20,000, reaches the astounding total of

\$120,000,000 a year, or \$1,200,000.

000 every decade. This estimate, however, is without question too conservative. Mr. Allen Hazen, an eminent American engineer, says book "Clean Water and How to Get It," that the reduction in the number of deaths in five cities, brought about through water purification, amounted to 440. proved general sanitary conditions, he says, were responsible for 137 of the 440 decrease. The typhoid reduction amounted to only 71. The reduction in the number of deaths from other causes amounted to 232-three times the typhoid reduction. If this ratio of deaths due to water holds good generally, then our typhoid deaths are only a small part

of the deaths due to bad water.

That three-quarters of the typhoid deaths are due to water Mr. Hazen himself declares. That three-quarters is referred to in the first para-graph of this article as the "fifteen thousand needlessly slaughtered each year by polluted Because, to quote Mr. Hazen, "three quarters of the typhoid deaths could be pre vented, and thereby could be stopped this needless loss of vital capital that is going on year after year.

way to save that three-quarters, then, is by being careful, which in this case means by providing pure water. As Mr. Hazen puts it, "By filtering all the water supplies of the important cities of the country, and by instituting other necessary sanitary reforms."

As proof of this let us see what has happened to the death rate in those localities that have purified their water supplies. The typhoid rate of Rensselaer for ten years averaged 61.9 per 100,000 population. In 1908, after the water filtered, it fell to 30. Hudson changed from Hudson river water to a purer supply, and the rate fell from 59.2-the ten-year average-to Poughkeepsie's rate used to average 112. In 1907 the filtration plant was improved, and the rate fell to 34.5. In Albany the ten-year average before filtration was 88.8. Since filtration the ten-year average has been 22.2.

In Pennsylvania, Pittsburg had a typhoid rate, according to Health Director E. R. Walters, that from 1901 to 1907 averaged 127. In 1907 the city spent \$6,500,000 for a filter system. During the three years since, the typhoid rate has been 31.9-a decrease of more than 75 per cent.

Chicago affords an even more striking examnle of the benefit of purifying the water supply. In 1891 Chicago's typhoid rate was 173.8 per 100,000, the highest average typhoid rate in the civilized world. Chicago purified its water by building its wonderful drainage canal to keep its sewage out of Lake Michigan. In 1908 Chiper cent.

Excellent as these achievements are, there is a possibility of an even greater reduction in the typhoid rate.

The methods of water purification are various. Undoubtedly filtration comes first; but filtration is not infallible. Another method of purification is the use of

huge storage reservoirs. Water is a poor medium for disease germs, and in it they die quickly. To quote Mr. Whipple again: "The typhoid bacillus does not multiply in ordinary Year's earnings of the dead...... 18,419 drinking water. On the contrary the cells die Ultimately all the cells die. The rate varies greatly. In some experiments all died in 3 to 5 days. In others germs lived a month. In very cold water mortality is more rapid." Hence if water can be impounded in large reservoirs and held for a time, it tends to purify

Sewage disposal is fully as important as was ter purification-that is, for any purpose except the saving of human life. If property is at stake it is indispensable.

The problem of clean water is evidently not a difficult one to solve. No nation has a finer supply of water than we have.

At the least you can guard the water that comes into your house. See that you get fresh water from the mains, and not water that has stood for hours in the lead or brass pipes within the house. House filters are plentiful, but few of them are efficient. They are merely strainers. Don't put ice in your water. It may contaminate it. Your great safeguard is is boiling your water. Particularly is this necessary in the late winter, when typhoid epidemics so often break out

ZANZIBAR PARROT IS A PROFANE LINGUIST

BIRD SWORE LOUDLY IN ARABIG BUT OWNER DECLINED TO WRING HIS NECK.

New York .- Ali Ben Ding, a Zanzibar parrot, skilled beyond belief in shrill articulation of Turkish Arabian, Moorish, French, German and Spanish profanity, was responsible for the arraignment in the Tombs police court of his owner, Se lim Hamad, a Byzantine sailor.

Selim Hamad is a young giant and be was charged by Arem Sultan, a slim, narrow chested Arab, who lives at 37 Washington street, with performing a wild Dervish dance on his chest after endeavoring to carve in-Itials in his neck. Arem Sultan had barely survived the ordeal and when he appeared before Magistrate Krotel to press the charge there was that in his appearance to suggest that an entire caravan had romped over him



Bird Causes Breach of Peace.

sundry camels having stopped awhite to test the footing up and down the buttons of his waistcoat and athwart his dusky features.

Through a tiny interstice in the bandages that wreathed his countenance he told an amazing story of the profanity of Ali Ben Ding and how the bird had brought him into unequal encounter with Selim Hamad.

For several days, the Arab said, he had heard the name of his ancestors reviled in his native tongue. He knew there were no Arabs in Washington street and he could not for the life of him puzzle out who was cussing him. He searched the house in which he was living from top to bottom, but could not locate the voice.

As he set out for a near by restaurant Sultan was startled by the erclamation:

"Dog of an Arab, eat the dust of

your thieving fathers!" Sultan stopped short and his blood caught fire. The honor of the tribe of Sultan had been traditional on the desert for centuries. To be called a dog was the vilest of epithets.

Sultan had halted in front of 25 Washington street and he had only to wait another instant before the same voice cried out an oath that caused the young Arab to turn pale and tremble. This bit of profanity was followed by the phrase:

"The tribe of Sultan is accursed by the moon, the stars and the dogfish | the objects to which it is given. that swim under the stars"

That was enough for the young Arab. He rushed into the doorway and up the stairs to the rooms occupied by Selim Hamad. The profance voice of Ali Ben Ding, the parrot, lured him on.

Sultan knocked at the door. Selim Hamad opened it, blocking the entrance with his glant bulk.

Greatly enraged, Sultan demanded of Selim Hamad that he slay the vile bird before his eyes.

"He is bewitched of a thousand devils," Sultan said. "Kill him at once. "Pouff, little one!" replied Selim Hamad in fluent Arabic. "All Ben Ding is a wise bird and knows a dog

This was too much for the little Arab, and he hurled himself upon the huge sailor, with the results already

of an Arab when he sees one."

HORSES BALK AT DEAD MAN

Drivers Then Learn of Veteran's Sulcide in Barn, Which Animals Refused to Enter.

Cynwyd, Pa.-John H. Titlow, seventy-one years old, an inmate of the Soldiers' home at Hampton Roads, and who was on a visit to friends in this vicinity, committed suicide by hanging in the barn of John Duffy,

William H. Duffy and William L. Downes were engaged in hauling hay to the barn, and about three o'clock. when they attempted to drive into the structure with a loaded wagon, the horses balked and refused to enter. Investigating the cause of the horses stubbornness. Duffy and Downes found the body of the aged war veteran dangling from a rope fastened to the rafter directly in the path of the



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WOULDN'T ANY WOMAN?



Mollie-She's great on adopting new

Jack-But she objects to new

wrinkles. Not Sufficiently Eager. A little miss of five years was under the ban of disobedience. She had been told to put away her playthings, as it the demand, and, when forced to do so gave way to a petulant display of temper. Her father, who was stairs, heard the commotion, and, being made acquainted with the cause, summoned the child to his presence. Irma started to the stairs, but suddenly made a turn, dashed along the hall, and out of the house. Of course she was soon captured, but her excitement was so great that she was put to bed at once. Mother's effort soothed the child and then she was asked: 'Why did you run away when your father called you?" The reply came promptly enough: "You don't sup pose, mamma, that I wanted a whiping bad enough to go upstairs after

"What do you think of the plot?" asked the theater manager. "That isn't a plot," replied the man who had paid two dollars to see the

A man's life can be no larger than

show. "That's a conspiracy."

LUCKY MISTAKE. Grocer Sent Pkg. of Postum and Opened the Eyes of the Family.

A lady writes from Brookline, Mass.: "A package of Postum was sent me

one day by mistake. "I notified the grocer, but finding

that there was no coffee for breakfast next morning I prepared some of the Postum, following the directions very carefully. "It was an immediate success in my

family, and from that day we have used it constantly, parents and children, too-for my three rosy young-sters are allowed to drink it freely at breakfast and luncheon. They think it delicious, and I would have a mutiny on my hands should I omit the be loved beverage. "My husband used to have a very

delicate stomach while we were using coffee, but to our surprise his stomach has grown strong and entirely well since we quit coffee and have been on

"Noting the good effects in my familv I wrote to my sister, who was a coffee toper, and after much persuasion got her to try Postum

"She was prejudiced against it at first, but when she presently found that all the ailments that coffee gave her left and she got well quickly she became and remains a thorough and enthusiastic Postum convert,

"Her nerves, which had become shattered by the use of coffee have grown healthy again, and today she is new woman, thanks to Postum." Name given by Postum Co., Battle Creek, Mich., and the "cause why" will be found in the great little book, "The Road to Wellville," which comes in

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.