

PAPERS BY THE PEOPLE

NOW DISEASE IS BEING CONQUERED.

By Dr. Andrew Wilson.

An announcement of much scientific interest appeared in the newspapers recently in the shape of details concerning a remedy for that common and often dangerous ailment, scarlet fever. Its promulgator, a Dr. Moser, of Vienna, is sanguine concerning its value in cutting short the ailment. He has selected a certain microbe which occurs in scarlet fever, and which he regards as likely to represent the germ of the disease. This organism is artificially cultivated so as to insure the purity of its stock, and to avoid the possibility of the intrusion of other species of germs. When a pure culture has been obtained it is used to inoculate an animal. As a result, there appears to be developed in the animal's blood a peculiar principle which is known as an "antitoxin." The word "serum" is a term applied to the fluid part of the blood in all animals—it is, indeed, the blood minus its corpuscles. Hence it is in the serum that the antitoxin is found, and this last is developed as the direct result of the growth and multiplication in it of the germs used for inoculation.

When the antitoxin taken from the animal's blood is used as an injection into the tissues of a human being attacked by the disease, it has the effect of modifying the ailment. The development of the microbes in the body of one animal produces a principle which is fatal to their growth in the body of another and different animal. Vaccination itself exemplifies such a process, for smallpox matter, modified by its transition through the calf, appears as vaccine lymph, which is used for protection against smallpox attack. So that, in reality, we are thus causing microbes that are capable of producing disease to fight their own kith and kin.

It is work of this kind which we may hope has been accomplished for the cure of scarlet fever. We have serums now in use for the cure of diphtheria, typhoid fever, cholera, lockjaw and plague. That for diphtheria has had a long and extensive trial both in hospitals and in private practice. The results have been most gratifying. The disease, a terrible malady, as we all know, can be mastered by the use of the serum in a fashion possible under no previous mode of treatment. Many a poor little sufferer has had ample cause to bless the progress of bacteriological science which has placed the antitoxin in the physicians' hands. The anti-typhoid serum is still on its trial, but here again the outlook is hopeful. There is likewise a cholera antitoxin, the use of which has been tested with success in India.

THE NEED OF RULES OF ETIQUETTE.

By Mrs. Humphry.

To those who desire to make their way in society, its laws must be known and observed. It is a fairly laudable ambition, that of attaining and holding a respectable rank in life; and if the minutiae of the process appear to be childish and silly to minds occupied with matters of more moment, they are really no more so than the first steps in any other pursuit—the faltering notes of the student of piano or violin, the tottering steps of the child learning to walk, the unwieldy stitches set in by the novice at the needle.

"Good manners are the fruit of noble mind," somebody says; but what measure of mental nobility will suffice to instruct the unlearned in the mysteries of the dinner table? Good manners are much more the fruit of being accustomed to move in wealthy circles than any direct consequence of possessing a noble mind.

Etiquette naturally divides itself into two sections: one that deals with good manners of the superficial, every day kind; and the other that concerns tactful behavior. A man or woman may be perfectly equipped with the outward forms of courtesy and yet convey studied insults by look, or tone, or manner. In fact, it has often been said that no one can be so execrably rude as a woman of the highest society who can administer a snub in a manner in which no fault can be found on the score of politeness.

So far as superficial manners are concerned, those that

are taught in the nursery and the schoolroom; that deal with bows and smiles, knives and forks, demeanor in the street, and politeness in the home; we are probably as well behaved as ever we were; but it is in our general conduct that we seem, as a nation, to be deteriorating.

Just think of the difference there is between the conditions of society at the beginning of the twentieth century and those that existed in the seventies. Croquet was just beginning to give way to lawn tennis. Golf was undreamed of as a game in which women might join. As to cricket, hockey, and football, they were then men's games. But now girls play them all. Girls pride themselves on being manly, just as our nice young mothers and our grandmothers before them prided themselves on being gentle, feminine creatures. They overdid it. They thought it the correct thing to scream if they saw a mouse, and to faint if a finger bled. And our girls overdo the manliness just as our mothers overdid the femininity. Are good manners generally declining? Or is it only here and there that we notice a roughness, and because it contrasts with the rest, accuse the whole? Is it really true that men are less polished, women louder of voice and more self-assertive?

PROBLEM OF THE DUST OF THE AIR.

By Andrew Wilson.

The publication of Tyndall's instructive book entitled "The Floating Matter of the Air" marked an era not only in respect of science at large but also in respect of many problems of public health. The demonstration of the air as a "strabound" of floating dust particles opened the eyes of those who read to the enormous dust cloud which is comprised in the great air ocean that surrounds our globe. "Dust and disease" has become a phrase which we accept because of the demonstration that the latter often arises out of the former. We are safe in saying that if we could abolish dust we should find many diseases to disappear. It would be a gross mistake to suppose that dust is universally dangerous. Much of it consists of mineral particles; some of it is represented by shreds of our clothing; some of it is dead particles derived from the bodies of animals and plants; some of it represents the germs or spores of molds and yeasts and other form of lower plant life; and some of it finally consists of disease producing microbes. Of the universal diffusion of dust nothing need be said. We only escape contact with it if we go to the mountain tops, or flush our lungs with the air of the open sea. When we enter the abodes of men our invasion by dust particles is full and complete. In a cubic meter of air taken from the open sea or mountain tops there were found only six or ten germs. In old houses in Paris the quantity found was 79,000 and over.

In our great centers of population we have to face a perpetual bombardment by dust particles of all species. Sweeping arrangements of ordinary kind only distribute them. The same may be said of the household sweeper and the familiar duster. There is displacement of dust, but no destruction. Even the corners of our rooms and the crevices of our cornices are harbors of refuge for the dust atoms. That is why in hospitals there are no angles in the walls, but rounded surfaces instead. The plan of the housewife who uses damp tea leaves preparatory to her swooping down with her broom or sweeper is a concession to an old idea. For so long as dust is kept wetted it is not dangerous. It is found that flushing the streets is a vastly superior process to sweeping them. The dust cart should be a thing of the past. Especially in summer should flushing be carried out. It is then that dirt flies and becomes dust. It is then also that we get food tainted, and especially milk, with the result that the little children die off in thousands from infantile cholera, due to the tainting of their food. If to water disinfectants are added we render ourselves doubly safe. In the future we shall find the housewife dealing with dust as science recommends. I read also of a system of cleaning carpets and other things by sucking the dust out of them by a vacuum process. Let us bethink ourselves of a crusade against dust. Once undertaken, the grievous time represented by the "spring cleaning" may become a thing of the past.

OLDEST LIVING MINISTER NEARS THE CENTURY MARK

Rev. William Howe, D. D., of 910 Massachusetts avenue, Cambridge, Mass., is 97 years old. It is believed that Dr. Howe is the oldest living clergyman in this country. For a man of his age he is remarkable active. Only a few weeks ago Dr. Howe officiated at the funeral of J. S. Paine, the well known furniture manufacturer.

Dr. Howe observed his 96th birthday last year by preaching for fifty minutes without notes at the Broadway Baptist Church, Cambridge.

He was born in Worcester, and received an academic education in Amherst academy. He graduated from Colby University, then named Waterville College, in 1833, and from the Newton Theological Seminary in 1836. Following his studies at Newton he established a circuit of eight mission schools in Boston. One was in a sail loft on Commercial street, from which developed the Baptist Bethel on Hanover street. From another mission on Friend street came the Union Baptist church. Dr. Howe was ordained to the ministry at Dr. Malcom's church, then on Federal street, now the present Clarendon Street church. From 1863 to 1870 he was pastor of the Broadway Baptist church, Cambridge. He was one of the originators of the Boston Associated Charities, and was a member of the Boston School Board.

About the safest get-rich-quick scheme is to marry an heiress.

THE WEALTH OF THE WORLD IS ESTIMATED TO BE \$400,000,000,000

THE total wealth of the world, while not exactly known, has been estimated at \$400,000,000,000, says Gunton's Magazine. This is probably an underestimate of the actual amount of money and property in semi-civilized lands. Of this total the greater part is owned by Americans and Europeans. The United States has somewhere near \$100,000,000,000, or about one-fourth of the whole. The united kingdom is the richest country of Europe, its wealth being estimated at \$11,806,000,000 or \$302 per capita. Of the total England's share was \$10,062,000,000; Scotland's \$1,094,000,000; Ireland's, \$650,000,000. In American money (at \$4.80 pound sterling) Great Britain's wealth in 1895 was \$56,668,800,000. A recent estimate makes it \$59,000,000,000, or \$1,442 per capita (in 1901). The annual income of England's population is said to be \$5,600,000,000, while the yearly saving is \$1,948,000,000. It should be remembered that a large amount of British capital is also invested in the colonies of the empire and in foreign lands. France is the next richest nation of Europe. Mulhall estimated its wealth in 1895 at \$9,690,000,000, or \$252 per capita. A recent estimate of France's wealth makes \$48,000,000,000, or \$1,257 per capita (1901). According to Mulhall Germany's wealth in 1895 was \$8,052,000,000, or \$156 per capita. Prussia's share was more than half (\$4,940,000,000); Bavaria's, \$948,000,000; Saxony's, \$450,000,000; Wurttemberg's, \$37,000,000, while the smaller German states had \$1,337,000,000. According to a more recent estimate Germany's wealth is \$40,000,000,000, or \$709 per capita (1901). German money loaned or invested abroad amounts to \$8,000,000,000 or more. Russia's wealth in 1895, as Mulhall estimated it, amounted to \$6,425,000,000, or \$61 per capita. A recent estimate places Russia's wealth at \$32,000,000,000, or about \$296 per capita (estimating the population in 1891 at 108,000,000).

Plague of Rats at Lisbon.

Lisbon, the Portuguese capital, has been attacked by a rat plague, and all means to check the pest have proven futile. The municipal doctors think they have found a way out of the difficulty. They have inoculated some rats with an infectious virus, harmless to man, and have let them loose. Many rats are now feeling the effects of the virus, and it is expected that the city will soon be rid of the plague.

Keep It in the Kitchen.

A new arrival had come into the family circle, and Tom, aged five, was taken to see the "little stranger." He

looked the infant over with a calm, critical regard, and then, turning to them who accompanied him, he said, very decidedly:

"Jane, you can keep that in the kitchen."

Oxygen May Be Cheap.

Signor Marconi, the inventor of wireless telegraphy, is said to have discovered a method by which oxygen may be extracted from air at a very slight expense.

After the average man strikes it rich it keeps him busy trying to forget his old acquaintances.

A CLOSE SHAVE FOR THE LIEUTENANT

FIRST LIEUTENANT ROBERT EMMETT KAVANAUGH was pacing up and down his narrow quarters in Fort Grady, Michigan, holding a telegram in his hand. He had read it twenty times, but at every second turn in his nervous walk he read it again. The telegram was dated Chicago, and this is what it said: "Leave Thursday for Florida; Uncle Frank ill. Stay indefinite. Norah Desmond."

Lieutenant Bob Emmett and Norah Desmond were engaged. They were to be married as soon as a few accommodation superior officers would consent to be killed off or die in their beds and thereby give Bob a chance to write captain instead of lieutenant before his name on the official papers. The young officer had fixed the limit of his waiting at about a year.

"Norah's going to Florida," he muttered to himself. "I haven't seen her for three weeks, and won't see her for six months to come. Uncle Frank is one of the kind who never dies and who never gets well, and Norah'll stay down there until the old man is willing to let her go. She's more of a stickler for duty than Old Muggs, the commanding officer, and that's saying a lot. He won't give me a leave; I've had too many. Great Winfield Scott, but I would like to see Norah before she goes. And Lieutenant Robert Emmett Kavanaugh sighed.

Bob Kavanaugh couldn't keep anything to himself, and in five minutes he was telling his woes to Captain Per-

hour or two to spare, I know you have; don't say no," and with this the lieutenant grabbed his friend by the arm, motioned his prisoner to walk ahead, and the three went on a half trot into the office of a hotel across the street. Kavanaugh threw a \$2 bill before the clerk and ordered a room. He hurried the astounded Jack Bacon and the prisoner into the apartment on the second floor.

"Jack," said Kavanaugh, in a low tone, "as you love me, watch this man. I must see Norah Desmond. She's off for Florida. Take this gun and don't fail me," and with that First Lieutenant Robert Emmett Kavanaugh shoved a revolver into Jack Bacon's hand, bolted through the door out of the hotel and on to a trolley car. In twenty minutes he was with Norah Desmond, who was in the midst of the last hour of preparation for her Florida trip.

In twenty minutes more the door bell of the flat rang violently. The maid opened it, and in rushed Jack Bacon flushed and fairly beside himself. "Bob," he yelled, "your prisoner skipped. He kicked open a door into the next room and jumped on to a low roof and then into the alley. I took a pot shot at him, but missed, and when I got down he was clean gone."

Bob Kavanaugh sank into a chair, his face pale. "Norah," he said, "this means court-martial and dismissal for me unless I can catch the fellow. It's a clean case of neglect of duty, awful neglect of duty, and Old Muggs doesn't love me too well, anyway. It's all up, dear, if I don't get him, and if I'm kicked out of the army I don't know what I'll do. I can't even dig a ditch, though I'd try willingly enough for you. But this won't catch him. I'm off, but I'll be at the train to say good-by," and Kavanaugh was out of the door and down the stairs four steps at a time.

Over on Halsted street in a room above a store a pretty, pale girl sat talking to a soldier in uniform. "It's all up, Polly," he was saying. "I hit the 'top' sergeant. He deserved it, but I was put in arrest and was to be tried, and it meant two years. I just cut away from a 'cit' whom the officer who had me in tow left me in care of. The officer went to see his girl. I guess he's in love, or he wouldn't have done such a fool trick. Well, I'm in love, too, Polly, dear, but I've got to get out of this as soon as I can get other togs on."

"Oh, this is awful, Jim," said the girl, "and you'll be a deserter, too."

"I won't get any more for that than I'll get for the other. I don't like the idea any better than you do. I guess the officer'll get it harder than I will. It's neglect of duty with him, and that'll kick him out of the service. I'm sorry for him, for he isn't half a bad sort." Then, suddenly changing the subject, the soldier asked: "How's your mother?"

"Better, Jim, but she'd have died if it hadn't been for Miss Norah Desmond. She's an angel. I had to stop work to nurse mother, and the money gave out and I got sick, and Miss Norah gave us a nurse and a doctor, and did lots else. I think she saved my life, too."

"Norah Desmond, Polly? That's the name of the girl the lieutenant I cut from is to marry. He'll be disgraced and the girl will suffer. She saved you and your mother, did she, Polly? Get on your things, quick. She leaves for Florida. I know the train. The lieutenant'll be there, I know that. Hurry, girl."

Lieutenant Robert Emmett Kavanaugh was kissing Norah Desmond good-by. His face was pale and anxious. "I'm afraid it's all up with me, Norah," he was saying, "but keep up a good heart."

Just then from behind him came a voice loud and with something of a ring of humor in it. "Sir, are all present and accounted for?" Kavanaugh turned like a flash. There stood Private Spencer, saluting with his right hand, while his left was holding that of a very pretty girl.

"Spencer, you're a brick," said Kavanaugh, and nothing but army training kept him from slapping his inferior on the back. "I'll use every official friend I have to get you out of your scrape."

A year later in pleasant quarters at Fort Grady sat Captain Kavanaugh and his wife. "Norah," he said, "First Sergeant James Spencer has applied for a furlough to go to Chicago to get married. Shall I approve the application?"

"Bob, if you don't," said Norah, with her eyes dancing, "I'll get a divorce."—Chicago Record-Herald.

The Candid Editor.

"You ask me to criticize your poem," wrote the editor, "and I am frank to say that I found nothing in it but six stanzas."—Atlanta Constitution.



"I TOOK A SHOT AT HIM."