

December 18, 1908

The detection of diseases is the most difficult branch in the practice of medicine. The treatment after the disease is determined is laid down in books, but the diagnoses cannot be made by hard and fast rules. Diagnosis is an art, and like other arts, can only be highly developed in those with a talent for it, and then only after long practice and experience. Of course there are certain rules and symptoms, always subject to variation, by which diseases are recognized, but with great talent, vast experience and all the signs and symptoms laid down in books, some of our greatest diagnosticians have mistaken flea bite for hemorrhagic or black smallpox, so no principal or teacher need feel badly if he fails to differentiate between a smallpox pustule and a pimple, or between scarlet fever and the flush of health. There is but little difficulty in recognizing the severer forms of disease, but in the schools the danger comes from the mild, obscure and elusive forms, the forms that physicians pass over and send to school with either a mistaken diagnosis or no diagnosis at all. A good confectioner might stand here and tell you the recipe for angel cake: so much flour, sugar, eggs, baking powder mixed together and baked, and you might mix the stuff together and bake it, but it would not be angel cake, for the reason that the confectioner could not give you the practice and experience necessary to make the thing a success. So I may stand here and give you the signs and symptoms of smallpox and other diseases, but I am utterly

unable to give the practice and experience whereby you may recognize these diseases. There are men belonging to this organization, however, who have had practice and experience along certain lines, smallpox and scabies principally. These men have reputations in the Health Department as experts, and I for one, would far rather trust ~~their~~ diagnosis along the lines in which they have had special experience than the diagnosis of some of our practitioners of medicine.

The diseases most dangerous to the schools are diphtheria, scarlet fever, measles and smallpox. Mumps and whooping cough have also given a great deal of trouble at times, and whooping cough is often a fatal disease.

#### DIPHTHERIA

All cases of sore throat in school children should be regarded as diphtheria until they are proved not to be. This is the most dreadful disease the school children are subject to, but fortunately one that can be recognized positively by means of a culture, and one for which the treatment is specific. The symptoms are fever, sore throat, and sometimes in cases of nasal diphtheria, discharge from the nose, or in laryngeal diphtheria, a croupy cough. It is bad practice to depend upon the presence of a visible membrane in the diagnosis of diphtheria, for the reason that the membrane may be present, but beyond view. Nasal diphtheria is not at all uncommon, and gives of course a positive culture for diphtheria, the throat often remaining uninfected.

Of late we have had several cases of diphtheria affecting other various membranes than the throat, several of these were nasal cases. One of positive culture was sent in by a specialist from the nose of a child who had come for treatment for acute offensive catarrh. The disease formerly known as membranous croup, and which is still so designated by

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some timid practitioners of medicine, is almost invariably laryngeal diphtheria, and the diagnosis is often made after death. Therefore all cases of laryngeal croup should be regarded with great suspicion. Some people are immune to the malignant symptoms of diphtheria. These people are most dangerous to the public when infected with this disease for the reason that it usually escapes detection and they come and go in the schools and other public places.

A positive culture is an absolute evidence of diphtheria; and it does not matter in the least that the subject is not sick; indeed he is far more dangerous than if he were sick in bed. The symptoms of diphtheria, any and all of which may be absent, except the Klebs-Loeffler bacillus, are: fever, high pulse, sore throat with or without membrane or swollen cervical glands, membrane in the nose or croupy cough.

--SCARLET FEVER --

Mild scarlet fever is another disease that gives a great deal of trouble. Children convalescing from unsuspected scarlet fever often get into school while scaling, and may be the cause of a general infection through a school district. A child may be scaling on a part of the body where it does not show and where it is impossible of detection. Such a child may infect every toilet in a school. Indeed there is a remarkably mild type of scarlet fever prevalent in one of the school districts at the present time, and it is altogether probably that it is due to infection carried by a child or children after one of these unrecognized cases.

Early symptoms of scarlet fever are: fever, vomiting and sore throat,--later rash and strawberry tongue. The latest and most dangerous manifestation of scarlet fever is the scaling. This is the symptom in which we are the most interested, for it is during this process that the disease is most contagious. Scaling may be so slight as to be almost imperceptible, or in the severer cases the skin may peel off in layers.

## MEASLES

The earliest symptoms of measles are those of cold; the eyes are watery and sensitive to light; there is discharge from the nose, sneezing and coughing. This disease is highly contagious from the first.

## SMALLPOX

The first symptoms of smallpox are very like lagrippe, and the disease is usually diagnosed lagrippe until the eruption appears. There is a chill followed by fever, headache, back ache and general aches and pains. About the fourth day red spots appear on the forehead and wrists, and on the fifth or sixth day these change into vesicles and later on pustules. There is something very distinctive in the characteristic smallpox pustule.

Smallpox may be very mild or a very malignant disease, and its symptoms vary accordingly. The type which has prevailed here during the last year is the mildest possible, the patients have suffered but little and no deaths have occurred. This type of smallpox should be classed with such diseases as chickenpox and mumps.

Vaccination produces an immunity to this disease, and should be strictly enforced, for we have no assurance that a malignant epidemic may not occur at some future time.

During the year 1906 an epidemic of measles swept through the schools, and there is no doubt that there were thousands of cases in the city during that epidemic. The health records show 365 cases during the month of May, with five deaths, and of course only the bad cases were reported.

We are immune--safe, from measles now until a new and unprotected crop of children grow up.

Last year it was mumps. This year it has been smallpox, and if the indications are to be relied upon, scarlet fever may be due for

1909.

Of the noncontagious diseases adenoids probably cause the most trouble. It is a common cause of deafness, and a condition amenable to treatment.

Children's eyes should be watched for conjunctivitis and trachoma.