best single method to clear a school of scarlet fever, for mild and beginning cases will be detected and proper precautions taken. The inspection should exclude from school each child who has a sore throat, a discharge from the nose or ears, suppurating glands or abscesses, and may be carried out by the school physician, or trained public health nurse.

4. The daily follow-up work by the school nurse, investigating absentees, will disclose mild cases at home who have no physician in attendance, and who because of the mild character of the disease might return to school while in the contagious stage and infect others.

5. No person should be allowed to handle milk or food after exposure to a case of scarlet fever until the maximum incubation period has elapsed or permission has been obtained from the board of health.

6. No persons whose occupations bring them into contact with children, such as a teacher who has been exposed to scarlet fever, should return to work without permission from the local board of health.

Clinical Department.

CLINICAL PICTURE OF PNEUMONIA IN A BOY OF TWO WHO SUBSEQUENTLY PASSED 370 ROUND WORMS.

By WILLIAM W. MCKIBBEN, M.D., WORCESTER, MASS.

THIS little patient was first seen at 6 P.M. Lying in bed he presented the classical picture of pneumonia:—flushed cheeks, mouth pallor, alae-nasi playing, and grunting expirations. He appeared toxic, prostrated and anxious. His pulse was 160, respirations 60, and temperature 104.

His mother had always fed him judiciously so that the only previous illness had been pertussis. A photograph taken the week before showed a fine specimen of boyhood.

However, he had been passing stringy mucus for a week or two; and the last two days had developed such a cough and cold that it culminated in his having to go to bed this afternoon. An efficient trained nurse, a friend of the family, was present and had provisionally diagnosed the case as broncho-pneumonia.

Careful percussion and auscultation over

both lungs, front and back, elicited no sonorous or harsh breathing nor any fine pleuritic râles. No Roentgen ray was taken to demonstrate a marginal pneumonia. The abdomen was tender and tympanitic.

Not finding, as yet, any positive physical signs of pneumonia, further inquiry brought out the fact that three and one-half months before, the boy had spooned some dirt into his mouth from around a shrub that had been heavily fertilized, and a week ago passed a dead worm of the *Ascaris lumbricoides* variety.

The high temperature and severe toxemia suggested the possibility of convulsions, so that besides baths and general care the nurse was ordered to give a tablespoon of castor oil, to be followed in an hour by $1\frac{1}{2}$ grains of *santonin*. His gastro-intestinal tract was well prepared for the treatment as he had eaten almost nothing since morning, preferring water instead of food. At midnight an urgent call announced the coming of worms. The boy was discovered lying on his back and between his abducted thighs was a wriggling mass, pinkish in color, closely resembling earth worms. At 2 A.M., he passed a similar ball of *Ascaris lumbricoides*. The total number from these passages by actual count was seventy-eight. The writer has these preserved in alcohol. The length varied from $1\frac{1}{2}$ to 11 inches. Those under $1\frac{1}{2}$ inches were not counted because there were so many and the nurse did not enjoy handling them. The small ones also tapered at either end. The males averaged from five to six inches and the females from 10 to 11 inches. One worm came up from the stomach and went wriggling out of the mouth onto the pillow.

Intestinal lavage was done with four quarts of salt solution and many more worms were flushed out in this way. In the morning the nurse was found pulling them out with forceps as they appeared at the anus. The castor oil and *santonin* treatment was repeated morning and night, gradually reducing the amount and frequency, so that in the next two days a total of 370 round worms were brought away, not counting those under $1\frac{1}{2}$ inches in length.

A blood analysis made on the second visit showed no leucocytosis but a marked eosinophilia of 40 per cent.

The treatment, a tablespoon of castor oil at bedtime followed by a grain of *santonin* in the morning, was continued bi-weekly for a month with from two to five worms resulting each

time. But an occasional treatment during the next three months resulted in no worms at all, and the boy waxed stronger and stronger until he was in perfect condition again.

FRONTAL SINUS COMPLICATIONS.

By FREDERICK J. McVEY, M.D., BOSTON.

I WAS called in consultation on April 20, 1919, to a patient suffering from influenza, pneumonia, and a left frontal sinus, which had broken through the floor into the orbit, the left eyelid was swollen, red, and the eye could not be seen, as the eyelid remained closed.

History of the case was that the patient had received a severe blow in the left eye on March 28, 1919; also went motorecycling with only a jacket on for a distance of about 60 miles, and on April 18, 1919, took to bed. The physician in attendance called me in consultation. We examined the chest and found the characteristic signs of pneumonia; also the septic condition of the left eyelid. Nasal examination showed no pus.

I suggested an operation on the left eyelid and to do frontal sinus operation under local anesthesia, but the parents refused. One week later I was called in consultation again; the pneumonia and influenza had subsided. Again I suggested an operation and was discharged as consultant. The attending physician kept me informed daily with the case; the eyelid was later opened up and considerable pus escaped and kept draining about ten days. Then it subsided and patient became delirious, opisthotonus was present.

On May 12, 1919, the patient died. An autopsy was performed; the floor and posterior walls were found perforated, and a frontal lobe abscess was found. The reason for its perforating these walls is because the thinnest walls offer the least resistance. The microscopical finding showed streptococci and diplococci which strongly resembled the pneumococci.

DR. ELBRIDGE SIMPSON PIXLEY died at his home in Pittsfield on October 11, at the age of eighty-seven years. He was born in Great Barrington in 1832, the son of Mr. and Mrs. Luther Pixley. Dr. Pixley was graduated from the Eclectic Medical College in Philadelphia in 1878 and began practising in Detroit in 1882. In 1860 he married Miss Henrietta E. Peet of Sandisfield. He is survived by one daughter, Mrs. Adolph Feiner of Pittsfield.

Society Reports.

AMERICAN PUBLIC HEALTH ASSOCIATION. SUB-COMMITTEE ON PATHOMETRY OF THE INFLUENZA EPIDEMIC.

NOTES on meeting of the Sub-committee on Pathometry, Committee on Statistical Study of the Influenza Epidemic, American Public Health Association. Meeting held at Columbia University, Fayerweather Hall, September 19, 1919. The following were present:

Charles C. Grove (Chairman), Columbia University; Raymond Pearl, L. J. Reed, Johns Hopkins University; Otto R. Eichel, New York State Department of Health; Haven Emerson, late epidemiologist, office of the Chief Surgeon, A. E. F.; E. O. Jordan, University of Chicago; J. Arthur Harris, Carnegie Station for Experimental Evolution, Cold Spring Harbor, N. Y.; James W. Glover, University of Michigan; Arne Fisher, Prudential Insurance Company; Ellsworth Huntington, Yale University; J. Warren Smith, U. S. Weather Bureau; Edgar Sydenstricker, U. S. Public Health Service; Edwin W. Kopf, Metropolitan Life Insurance Company.

Professor Grove, in opening the meeting, said reports of progress in the tabulation of the empirical statistics of the epidemic showed that data suitable for pathometric study would soon become available. He said there were a number of basic questions which analysis should dispose of before attempting elaborate mathematical studies. He invited members of the conference to state what they considered problems of fundamental importance in order that agreement could be reached by informal discussion and resolution. The questions are set forth below, together with the consensus of opinion:

I. *Can any mathematical function rationally express the epidemic process (a) chronologically, (b) as to age incidence, (c) in relation to epidemic and endemic occurrences of diseases known as "influenza" and "pneumonia" in past years, for a particular community?*

The first conclusion of the Sub-committee was that no mathematical function, simple in nature and, therefore, practicable, could probably be found at present to express analytically