

employs turpentine, eucalyptus, and other volatile oils, and the results are quite the same as mine. It is strange that the Russian physicians, in spite of several lectures by Kremianski at the Congress of Russian Physicians, do not pay any attention at all to his method. Professor Kremianski claims that by his inhalations the tubercle bacilli are killed, and in this manner the disease is cured. As we have seen, this view is erroneous; the improvement in the health of the patients being due to another cause, as we have already shown, viz., the better ventilation of the lungs and their exercise.

As to chronic catarrh of the larynx and also chronic bronchitis, accompanied by bronchorrhœa, I do not know any remedy which in such a short time produces such great effect as the above inhalations.—*Satellite.*

A CASE OF CEREBRO-SPINAL MENINGITIS, WITH REMARKABLE DIMINUTION IN THE NUMBER OF RESPIRATIONS.

BY J. F. ERDMANN.

A woman of twenty-five was seized, August 3, 1889, with an occipital headache; temperature, pulse, and respiration normal. In the following six days well-marked symptoms of cerebro-spinal meningitis developed.

On August 10th, at 1 a.m., the respirations had fallen to 7, pulse 56, temperature 98.5°. There had been but half a grain of morphine administered during the preceding eighteen hours. She complained of soreness of the throat inability to swallow readily, and rigidity of the jaws. At 1 p.m. the clonic spasms of the lower extremities had increased, while the trismus had diminished slightly. At 11.30 p.m. the respirations had fallen to 4 in a minute; patient had had but one grain of morphine and one ninetyeth of a grain of sulphate of atropine during the preceding thirty hours. A hypodermic of one fiftieth of a grain of sulphate of atropine was administered, and within three hours the respirations were 9. The pain in the back had extended to the dorso-

lumbar region, and that in the head to the frontal.

On the following day the respirations had fallen to 6, when one one-hundredth of a grain of sulphate of atropine was administered by the mouth.

During the 12th of August the patient vomited several times. Temperature 98.5°, pulse 72, respirations 13. During the night and early morning of the 13th the vomiting continued half-hourly.

On the morning of the 14th her arms became rigid, and remained so throughout the day. Her mental condition was considerably more apathetic. Temperature 97°, pulse 58, respirations 15.

At 11.45 a.m. on the 15th temperature was 97.6°, pulse 80, with very deep respirations of two to three a minute. She complained of a sense of oppression in the chest and intense pain in both back and head. The remedies administered were sulphate of atropine one one-hundredth of a grain and morphine one sixth of a grain hypodermically, with 3 jss. of aromatic spirit of ammonia. At 3 p.m. respirations were 3; it was then observed, after the administration of aromatic spirit of ammonia, that she had six or eight very shallow respiratory movements, scarcely noticeable in conjunction with the three deep ones, during which no respiratory murmur could be detected. At 10 p.m. the respirations were 16, temperature 98.2°, pulse 70, photophobia and phonophobia somewhat diminished.

On the following day the pain in the back and head was less intense. She partook of nourishment for the first time during the attack with great relish.

From this time on her progress toward recovery was rapid, although there was remaining considerable dull pain in the head and dorsal region on September 10, 1889. During the major portion of her illness there was a happy delirium mild in character.

The treatment pursued was with morphine, cathartics, sulphate of atropine, and iodide of potassium in beginning dose of eight grains, increased one grain and a half each dose till twenty-five grains were being taken, three times daily. This dose after two days became intolerable, and was diminished to twenty grains. Locally