

tract the peripheral vessels, the heart works more slowly, the vessels show an improved tension, diastole is decreased, and the elasticity elevation returns. The respiratory apparatus is excited by the peripheral irritation to deeper and slower movements, cough is more effective, and in this way bronchial obstructions and consequent atelectasis and catarrhal pneumonia are better avoided than by the impracticable advice to turn a fever patient on his side. Ziemssen gives two or three statistics to show the effects of the cold and the lukewarm bath treatment respectively. He takes his illustration of the strictly cold bath from Vogl, physician to the Garrison Hospital at Munich. He gives (with a rectal temperature of 102.2° F.) a cold bath at 63.5°, lasting a quarter of an hour, about every three hours, winter and summer, in unheated rooms, with windows open day and night. This is bold treatment, and for soldiers (for the most part with young and picked lives) does well. There were only 52 deaths in 610 cases, or 5.4 per cent. Murchison gives the mortality of typhoid in the London Fever Hospital, after deducting cases which died within forty-eight hours of admission, at 15.82 per cent. Ziemssen compares Vogl's practice with strict cold water treatment with Naunyn's in a civil hospital, who, with an axillary temperature of 103.1°, taken every three hours, gives usually eight baths in twenty-four hours, generally between noon and midnight, at a *not lower* temperature than 72.5°. He divides baths into *cold* (72.5° to 81.5° F.; duration, five to ten minutes), *lukewarm* (from 81.5° to 90.5°, ten to fifteen minutes) and *warm* (90.5° to 95°). The warm are given in the later stages in very active delirious patients with great restlessness and muscular weakness. By this treatment Naunyn lost 10 of 145 cases, or 6.9 per cent., "certainly a favourable percentage." Ziemssen himself says that for twenty years he has recommended, for private practice, the gradually-cooled bath. The patient is placed in a warm bath of 90.5° or 86°. The water is continually poured over him with hands or sponge. While this is being done, cold water is very slowly poured in at the foot of the bath tub, and the water reaches gradually a temperature of 77° or 72.5°, until the patient's teeth chatter, or he declares he can stand it no longer. He is then taken out and placed in a blanket previously warmed, and wrapped in it without being dried. In this he remains in the greatest comfort for fifteen minutes, is then rubbed dry, and allowed to sleep. Ziemssen, like a wise physician, recommends the study of the peculiarities of individual cases. While lauding the bath treatment, he speaks respectfully of antipyretic drugs.—*Lancet*.

PERIPHERAL NEURITIS.—In discussing this subject in the *Brit. Med. Journal*, 1887, p. 6, Ross

says that the symmetrical manner in which the disease usually attacks the body shows that at least in the majority of cases it is produced by some poison in the blood. Thus salts of lead, arsenic, and probably of copper and other metals are capable of giving rise to it. In a second group of cases the disease is caused by alcoholic excess, the fumes of bisulphide and oxide of carbon, and probably by the abuse of chloral and chloroform. It has also been observed in advanced diabetes. A third variety arises from animal poison. Diphtheritic paralysis is the best known instance of this. It is also to be observed in syphilis, small-pox, scarlet fever, measles, typhoid, typhus, intermittent fever, dengue, tuberculosis, leprosy and beri-beri. It is probable that it may be caused by rheumatism, and that the wasting of the extensors seen in chronic rheumatoid arthritis is due to a neuritis of the neighbouring nerves. There is also an *idiopathic* multiple neuritis.

The symptoms consist in more or less widely distributed atrophic paralysis. Ross has never been able to assure himself that active spasm preceded the paralysis in any case. The condition of the cutaneous reflexes varies. With a very few exceptions, the patellar reflex has been wanting in all recently reported cases of alcoholic, diphtheritic, and other forms of neuritis of the lower extremities. The knee-jerk is sometimes absent in lead poisoning, even when the muscles of the lower extremities are not appreciably involved. Yet the failure of the patellar reflex is a valuable but not an absolute sign of neuritis. The electrical test affords conclusive evidence in the majority of cases. The faradic excitability of the affected nerves and muscles is lessened or abolished, and the reaction of degeneration is detected with the galvanic current. The paralysis affects especially the extensors, as is well seen in the "wrist-drop" of lead palsy. That following alcohol, bisulphide of carbon, the animal poisons, and even arsenic, usually attacks the extensors of the lower extremities first. Paralysis of the extensors of the forearm soon follows in alcoholic neuritis, then the thighs and upper arm, then the flexors of the leg and forearm, and finally even the muscles of the trunk may become involved. In diphtheritic paralysis the soft palate is the first to be affected; then the muscles of the eye, and after some time the lower extremities. The arms are seldom involved. The paralysis of the extensors in neuritis produces a temporary or permanent flexion of the limb, simulating a spasm of the flexors. The sensory disturbances accompanying the paralysis resemble considerably those of locomotor ataxia. The disease may most easily be confounded with chronic poliomyelitis, Landry's paralysis, and locomotor ataxia. From the first it is distinguished by the presence of well-marked sensory phenomena, and by the order in which the muscles are attacked.