

which, on the whole, is a closer representation of the facts of nature than a collection of more accurate scraps of knowledge not properly assimilated one to the other can possibly be. Those biologists who find it a matter of the utmost difficulty to keep abreast of the growth of knowledge in one small corner of the vast field of comparative anatomy can alone appreciate the magnitude of the task Prof. Bütschli has accomplished in these volumes. For a man who has built up a deservedly great reputation by original investigation in the domain of protozoology to write the best comparative anatomy of the Vertebrates is surely an achievement that is not likely to be repeated.

G. E. S.

#### RESUSCITATION.

*Resuscitation from Electric Shock, Traumatic Shock, Drowning, Asphyxiation from any cause by means of Artificial Respiration by the Prone Pressure (Schaefer) Method.* By Dr. C. A. Lauffer. Pp. v+47. (New York: John Wiley and Sons; London: Chapman and Hall, Ltd., 1913.) Price 2s. net.

IN this little book of forty-seven pages Dr. Lauffer, the medical director of the Westinghouse Electric and Manufacturing Company, East Pittsburg, deals with the subject of artificial respiration as applied to resuscitation in electric shock. Dr. Lauffer is an enthusiastic advocate of the prone pressure (Schaefer) method of resuscitation, and his enthusiasm appears to be based upon considerable experience. He narrates several cases which have come under his immediate notice in which it has been successfully employed: one of concussion of the brain, with unconsciousness and failure both of heart and respiration, requiring an hour's application of the method; two severe cases of electric shock; one of suffocation from smoke, in which life appeared to be extinct; one of an injury to the head, in which respiration was completely arrested and the patient would have died but for the prompt assistance of artificial respiration on the part of one of the men whom he had instructed who happened to be present; and one of drowning. In addition to these cases, he states that he knows a man who has resuscitated six victims of electric shock, all of which cases would have been fatal but for his prompt and efficient efforts at artificial respiration. The author adds, "This man is an enthusiastic advocate of the prone pressure method."

Dr. Lauffer does not, it will be seen, confine himself to those cases in which he is more immediately interested, but has carried on his observa-

tions on cases of asphyxia from whatever cause. He points out the various circumstances in which artificial respiration may be necessary, including asphyxia arising from poisoning from carbon monoxide, ammonia fumes, gasoline fumes, sewer gas, suffocation by smoke, inhalation of confined air, inhalations of chloroform and ether, overdoses of laudanum, shock from a heavy blow on the abdomen, and apparent death from drowning. He explains the process of respiration, and gives a clear account of the manner in which artificial respiration should be performed. He especially emphasises the fact that by the prone pressure method resuscitation can easily be carried out by a single individual and without the aid of any extraneous apparatus; even if the operator be a mere boy and the victim an adult, the boy can utilise more than 80 per cent. of his weight by raising his knees from the ground and supporting himself entirely on his toes and the heels of his hands, the latter being properly placed over the floating ribs of the patient. He might perhaps have added that if the boy were to kneel directly upon the back of the patient, an even larger proportion of the operator's weight might be utilised.

Dr. Lauffer has never seen a case of fracture of the ribs or any damage to internal organs arise from the prone pressure method. He considers that the teaching of the subject should be made a part of every gymnastic course, especially in college and Y.M.C.A. gymnasiums and in Boy Scout organisations (which we believe is already the case in this country); he states that it is employed in the United States Army as part of the setting-up exercises.

The author further deals with the question of supplementary assistance which might be rendered if there is any second person to assist, but rightly points out that nothing must be allowed to interfere with the immediate application of artificial respiration, nor should this be desisted from nor the patient permitted to get up until his breathing has become regular. Dealing with the question of mechanical assistance, whilst not averse to the employment of any such assistance if it is immediately available, he points out that extravagant claims are made for various mechanical devices, and that, since such devices may be too remote, or when procured may be out of order, he concludes that there is nothing so dependable as the hands of a man's friends, and that no reliance can be placed on any outfit that cannot be carried with every electrical workman and which is not instantly available.

We commend Dr. Lauffer's little book to all who are interested in the subject.