ence, which is numerically most important. Mr. Linderfelt's little volume presents the subject in an equally attractive though somewhat different manner, being based upon a German work by Professor Kirchhoff of the University of Halle. Each book contains a copious vocabulary, besides exercises in reading and translation.

Management of Accumulators. By Sir DAVID SALOMONS. 3d ed. New York, Van Nostrand. 16°.

IN the last few years it has been recognized that the treatment of secondary batteries has as much to do with their life and economy as the method of manufacture, especially in the 'grid' type of cell now generally used. No one has had more experience in the use of storage cells than Sir D. Salomons, and what he tells us is of great value to those who work with them.

The present edition of the 'Management of Accumulators' is much larger than the two previous editions, the principal increase being in the chapters on installation. The book is in no sense a treatise on accumulators: it gives but a bare and incomplete description of the chemical actions that take place, and does not attempt to describe any form of battery other than the grid type of the E. R. S. Company's pattern. Instead of this, it gives explicit directions for the care of batteries and the installation of an isolated lighting plant, and it gives estimates of the cost of installation under various conditions. The least satisfactory chapter — that on engines, dynamos, and electric motors — fortunately is the easiest dispensed with.

This book will be valuable to all those who have to do with storage batteries: it will possibly be out of date in a couple of years. The storage battery is being constantly changed and developed, but in the mean time it will have done a good work, and it is to be hoped, that, when the practice changes, Sir David will write a new book.

NOTES AND NEWS.

THE annual winter meeting of the Department of Superintendence of the National Educational Association was held in the hall of the Franklin School, Washington, D.C., on Tuesday, Wednesday, and Thursday of this week. An excellent programme had been prepared by President Dougherty, and the number of distinguished educators who delivered addresses was unusually large. The most important topics treated were, 'How and to What Extent can Manual Training be ingrafted on our System of Public Schools?' by Charles H. Ham of Chicago, Superintendent MacAlister of Philadelphia, Superintendent Marble of Worcester, President Nicholas Murray Butler of New York, Superintendent Powell of Washington, and Dr. Belfield of Chicago; 'How can the Qualifications of Teachers be determined?' by State Superintendents Draper of New York, Higbee of Pennsylvania, Finger of North Carolina, Kiehle of Minnesota, Easton of Louisiana. President Eliot of Harvard read a paper on the second day of the meeting.

— The October number of the *Monthly Weather Review* contains an interesting discussion by E. B. Garriott on the movements of high-barometer areas over the North Atlantic Ocean, founded on the daily weather-charts for 1885. In the *Weather Review* for July, 1887, it was shown that a cyclone's movement depends upon its position with reference to anticyclonic areas, and that during periods of high barometric pressure over mid-ocean north of the 40th parallel, storm areas do not follow the usual east-north-east course to European waters, but pursue a more northerly track, or disperse. In order to study the course of cyclones more closely than has been done heretofore, this investigation was carried on, and resulted in the discovery of the following facts. There exists almost continually an area of high barometric pressure south of the 40th parallel, and one of low barometric pressure farther north. Upon advancing from the American coast, areas of low barometer appear to move towards the region of low barometer, and areas of high pressure are apparently attracted to the region of maxima. The latter show a far greater degree of uniformity of movement than the cyclonic areas, their course and velocity being seldom influenced by the cyclonic areas that may precede or follow them. About ninety per cent of these anticyclones pursue a south-of-east course from the American coast, and, upon advancing to the vicinity of the 60th meridian, lose their individuality and become a part of the great anticyclonic system of that region. The average time occupied by the anticyclones of 1885 in advancing from the 90th meridian to the coast was about one and one-half days, this rate of progression being considerably greater than the average velocity of cyclonic areas over that region. As soon as an anticyclone is absorbed by the great anticyclonic system, the latter extends considerably westward, and therefore a cyclone closely following the passage of a high-barometer area takes an abnormal northerly course; and, on the other hand, the greater the period which exists between the advance of the areas from the coast-line, the greater will be the likelihood of the low-pressure area pursuing a normal path over the ocean. As in the normal movement of cyclonic and anticyclonic areas the latter more frequently closely follow and accelerate the forward motion of the former upon passing from the coast, they materially contribute to the greater rapidity of their advance over the ocean. The thorough study of the normal movements of anticyclonic areas over the continent and the western portion of the ocean, and of the relations which exist between high and low barometer areas attending their passage from the coast, will probably enable us to determine with a considerable degree of accuracy the course of cyclones across the Atlantic Ocean.

— It has been generally accepted that the translation of the name of 'Kongo' is 'the country of leopards,' the root *ko* meaning 'the country,' and *ngo* 'leopard.' J. Jankó, in the January number of *Petermann's Mitteilungen*, shows that this translation is not satisfactory, as, according to the rules of the Bantu language, these two words cannot be combined into the word 'Kongo.' He discusses the various forms of this word as found among the tribes of the Lower Kongo, — the Bakongo, who live on the river from its mouth to Stanley Pool; the Bateke, who occupy the regions between the Kuango and Kongo, and the Kongo and Alima; the Babuma, north-west of the last tribe; and the Bayanzi, between Leopold Lake and the Kongo. The Bakongo name of the river is 'Kongo,' that used by the Bateke is 'Songo,' and the Bayanzi say 'Rongo.' All these names are dialectic variations of the same word, the *k* of one dialect becoming *r* and *s* in the others. The meaning of the word in the Bayanzi dialect is 'spear,' and accordingly Jankó explains the name of Bakongo as 'the man with the spear;' the name of the river, as 'fast as a spear.' If this translation should be correct, it seems more probable that the name of the river was derived from that of the tribe. Jankó remarks incidentally that the root *ku* infers a motion, and that it is contained in the names of numerous rivers, such as Kuilu, Kunene, Kuango, Kuanza, which therefore must not be spelled Kwilu, Kwango, etc. It seems probable that the same root may be contained in the word 'Kongo,' and that the meaning 'spear,' which is, according to Jankó, confined to the Bayanzi, is also derived from this root.

— In controlling the movements of domestic animals by the voice, besides words of ordinary import, man uses a variety of peculiar terms, calls, and inarticulate sounds, — not to include whistling, — which vary in different localities. In driving yoked cattle and harnessed horses, teamsters cry 'get up,' 'click click' (tongue against teeth), 'gee,' 'haw,' 'whoa,' 'whoosh,' 'back,' etc., in English-speaking countries; 'arre,' 'arri,' 'jüh,' 'gio,' etc., in European countries. In the United States 'gee' directs the animals away from the driver, hence to the right; but in England the same term has the opposite effect, because the driver walks on the right-hand side of his team. In Virginia, mule-drivers gee the animals with the cry 'hep-yee-ee-a.' In Norfolk, England, 'whoosh-wo;' in France, 'hue' and 'huhaut;' in Germany, 'hott' and 'hotte;' in some parts of Russia 'haitä,' — serve the same purpose. To direct animals to the left, another series of terms is used. In calling cattle in the field, the following cries are used in the localities given: 'boss, boss,' 'sake, sake' (Connecticut); 'coo, coo' (Virginia); 'sook, sook,' also 'sookey' (Maryland); 'sookow' (Alabama); 'tloñ, tloñ' (Russia); and for calling horses, 'kope, kope,' (Maryland and Alabama); for calling sheep, 'konanny' (Maryland); for calling hogs, 'chee-oo-oo' (Virginia). Mr. H. Carrington Bolton is desirous of collecting words and expressions (oaths excepted) used in addressing domesticated ani-