was also put into use as a hæmostatic. Tar was highly praised for its antiseptic virtues, and was either applied in the form of a dressing or directly poured upon the wound. Besides these, many aromatics and bitters were in daily usage, among which were thyme, rosin, asphaltum, etc., used as dressings or in the form of plasters. Galen was acquainted with catgut, and advised the use of non-putrefying substances for sutures. Professor Anagostakis declares that all this was not empiricism, but an antiseptic method founded upon some knowledge of the principles governing the healing of wounds.

NOTES AND NEWS.

AT the meeting of the American Naturalists, Dec. 31, 1890, at Boston, the topic will be "The Inheritance of Acquired Characteristics." It will be presented from several points of view by the following speakers: Professor H. F. Osborn, W. H. Brewer, W. K. Brooks, W. G. Farlow.

—From the first of January, Dr. Richard Andree, 27 Leopoldstrasse, Heidelberg, will be the editor of *Globus*, which was founded nearly thirty years ago by his father, recently deceased.

—A quaint custom, dating back to Anglo-Saxon times, known as payment of "wrath silver," was recently observed at Knightlow Hill, a tumulus between Rugby and Coventry, England. It consists of tribute payable by certain parishes in Warwickshire to the Duke of Buccleuch. The silver has to be deposited at daybreak in a hollow stone by representatives of the parishes, the penalty for default being forfeiture of a white bull with a red nose and ears. The representatives afterwards dined together at the duke's expense.

—In the *Meteorologische Zeitschrift* for October, M. Nils Ekholm gives an account of a method on trial at the Meteorological Office of Stockholm, which seems likely to throw some light upon what has hitherto been a difficult matter to deal with; namely, the determination of the path taken by storms. He calculates, from the telegraphic weather reports, tables of the density of the atmosphere, and constructs from the data synoptic charts of this element, and finds that they give a better clew to the movements and origin of cyclones than the usual method of a comparison of the isobars and isotherms alone. He finds, as stated in *Nature*, that storms move in the direction of the warmest and dampest air, parallel to the lines of equal density, leaving the rarer air to the right hand. A few empirical rules are quoted from about a hundred cases which have been investigated.

—Ginn & Co. announce to be ready Dec. 20, "Good-Night Poetry," by Mr. W. P. Garrison. The idea of this book is that "the thoughts and feelings that are in the mind as it bids the world good-night have the hours that follow for undisturbed working on the quality of the brain. For moral culture, these last minutes are decisive. We must gain them for what is true and good; and poetry is the voice they will hear most willingly."

—At the eighth congress of the American Ornithologists' Union, held at the United States National Museum, Washington, Nov. 18–20, the papers read were as follows: "The American Ornithologists' Union—A Seven Years' Retrospect," an address by the retiring president, by J. A. Allen; "Seed-Planting by Birds," by Walter B. Barrows; "Phalaropes at Swampscott, Mass.," by William A. Jeffries; "The Birds of Andros Island, Bahamas," by John I. Northrop; "Remarks on a Few Species of Andros Island Birds, collected by Dr. Northrop," by J. A. Allen; "An Experimental Trial of a New Method for the Study of Bird-Migration," by Harry Gordon White; "A Study of Bird-Waves in the Delaware Valley during the Spring Migration of 1890," by Witmer Stone; "Our Present Knowledge of the Neotropical Avifauna," by Frank M. Chapman; "The case of Colaptes auratus and C. cafer," by J. A. Allen; "Observations upon the Classification of the United States Accipitres, based upon a Study of their Osteology," by R. W. Shufeldt; "Some Observations on the Breeding of Dendroica vigorsii at Raleigh, N.C.," by C. S. Brimley; "The Trans-Appalachian Movement of Birds from the Interior to the South Atlantic States, viewed Chiefly from the Standpoint of Chester County, S.C.," by Leverett M. Loomis; "A Further Review of the Avian Fauna of Chester County, S.C.," by Leverett M. Loomis; "Some Bird Skeletons from Guadalupe Island," by Frederic A. Lucas; "The Present Status of the Ivory-billed Woodpecker," by E. M. Hasbrouck; "Some Notes concerning the Evening Grossbeak," by Amos W. Butler; "Owls of Illinois," by W. S. Strode; "The Spring Migration of the Red Phalarope, Crymophilus fulicarius," by Harry Gordon White; "On the Tongue of Humming Birds," by Frederic A. Lucas; "Instinct, Intuition, and Intelligence," by C. F. Amery; "The Habits of the American Golden Plover in Massachusetts," by George H. Mackay; "Correction to Revised Catalogue of the Birds of Kansas," by N. S. Goss; "Second Occurrence of the White-Faced Glossy Ibis, Plegadis Guarauna, in Kansas," by N. S. Goss; and "Remarks on the Primary Faunal Divisions of North America," by C. Hart Merriam.

—*The Scottish Geographical Magazine* for November is authority for the statement that a submerged city has been discovered between Grado and Pola in Istria, which very likely will prove to be the ruins of the town of Cissa, mentioned by Pliny and Decimus Secundinus as situated upon an island of the same name. The position of its site being doubtful, considerable interest has frequently been evoked by attempts to identify it, which, however, have hitherto failed. A diver who has examined the newly discovered remains reports that the walls of buildings and streets can be clearly traced, and that he followed a sea-wall for a hundred feet, and might have been able to proceed along it for a greater distance had not the apparatus which supplied him with air prevented his further progress, while the depth of water beyond the wall forbade any attempt to examine its frontage. No signs of doors or windows were observed; but these, he considered, were blocked up and hidden by *débris* and marine growths. Further investigations are to be carried out, which, it is hoped, will do much to clear up the mystery that has so long hung over Cissa, its position, and its fate.

—Mr. T. Tuhlin has recently published in the *Nova Acta* of the Royal Society of Sciences of Upsala a paper on the nocturnal temperature of the air at different heights up to twenty-four feet, from hourly observations taken during the winters of 1887 and 1888, in the grounds of the Upsala Observatory. The observations were made mostly while snow lay upon the ground, with thermometers both with and without screens, and were intended to form a sequel to the series made by Mr. H. E. Hamberg during the summer season. The first part of the paper, according to *Nature* of Nov. 20, contains a *résumé* of the experiments made since 1778. The following are some of the chief results arrived at in the second part of the paper. The decrease of temperature by radiation from unprotected thermometers over snow remained almost constant at heights above half a metre. During clear nights the temperature increased with height, from two or three hours before sunset until two hours after sunrise; and the lower the temperature, the greater was the increase. During cloudy or foggy nights the temperatures at different heights were nearly equal; but, if the clouds were high and thin, the increase of temperature with height was only slightly hindered. The surface of the snow was found to be colder than the surrounding air.

—The movement for better roads which is so prevalent in many States has resulted in Pennsylvania in the appointment of a road commission by the legislature and governor, to investigate the road laws and formulate a better system. With the same end in view, the committee on better roads, a committee of citizens of Philadelphia, offered, through the University of Pennsylvania, prizes amounting to $700, for the best papers on road making and maintenance, embodying the engineering, economic, and legislative features of the problem. A large number of contributions were received and referred by Dr. William Pepper, provost of the university, to a board of adjudicators appointed by him, composed of Alexander J. Cassatt, C.E., chairman; William Sellers, M.E.; Joseph M. Wilson, C.E.; William H. Wahl, Ph.D.; Thomas M. Cleeman, C.E.; Hon. Wayne MacVeagh; and Professor Lewis M. Haupt, C.E., secretary. During the examination of the papers, and until the awards were made, their authors remained entirely unknown to the board, which, after due consideration, awarded the first prize, of $400, to Henry Irwin, B.S., C.E., assistant engineer Canadian Pacific Railway, Montreal, Canada; the second

prize, of $200, to David H. Bergey, B.Sc., M.D., North Wales, Penn.; and the third prize, of $100, to James Bradford Olcott, practitioner and writer upon the subject, South Manchester, Conn.; and honorable mention, without reference to order, to Edwin Satterthwait (president of the Cheltenham and Willow Grove Turnpike Company, Jenkintown, Penn.), Charles Punchard (former surveyor of roads in England, Philadelphia, Penn.), George B. Fleece, C.E. (Memphis, Tenn.), Frank Cawley, B.S. (instructor in engineering, Swarthmore, Penn.), and Francis Fuller McKenzie, C.E. (Germantown, Penn.). These, together with a careful digest of the remaining papers prepared by Professor Lewis M. Haupt, C.E., head of the civil-engineering department of the university, and secretary of the committee on better roads, and a short paper, also written by by him, discussing the general features of the contributions, with some notes on the adaptation of soils to foundations (all of which has been copyrighted by William H. Rhawn, chairman of the committee), will be published in one volume by Henry Carey Baird & Co., Philadelphia.

—*The Canadian Gazette* of Aug. 7, 1890, states that Sable Island is disappearing: This island, which lies in latitude 44° north, and longitude 60° west, was not very long ago forty-miles long, whereas it is now only twenty miles. Since 1880 three lighthouses have been built on it, of which two have been washed away, and the third is being rapidly undermined by the waves.

—Two great authorities on social matters have lately expressed their personal opinion on the results of modern education as to its effects upon the well-being of the population. Prince Bismarck thinks that higher education for the lower classes has been too widely spread (*British Medical Journal*), and in a recent conversation is reported to have said, "Over-education in Germany leads to much disappointment and dissatisfaction; in Russia, to disaffection and conspiracy. Ten times as many young people are educated there for the higher walks of life as there are places to give them, or opportunities for them, in the liberal professions, to earn a decent living, far less wealth and distinction. Perhaps it is not quite the right kind of learning, too. What good does it do them? When they have gone through it, in nine cases out of ten there is nothing for them to do; and their learning is worse than a superfluity to them, for it makes them discontented, nay, miserable." Mr. Gladstone takes a different view, but believes that classical education should only be given to those likely to profit by it in after-life. He is strongly desirous to promote physical and corporal education generally, and attaches much value to the training of the eye and the hand. For this purpose he urges that some branch of natural history should have a higher place in the modern theories of education than it has yet obtained. In these days, when many medical men see reason to believe that education in too many cases exhausts and injures the nervous system, in place of developing and strengthening it, it is interesting to know the opinion of great statesmen of experience. The question is a very serious one, and demands inquiry as to the effects of the present educational systems upon the brains of the young.

—A report has lately been issued by the Chinese commissioner of customs at Newchwang, as stated in *The Scottish Geographical Magazine* for November, in which some interesting particulars are given regarding the means of transport existing in Manchuria. The roads are mere tracks of frozen mud, impassable in wet weather. The late harvest has been exceedingly abundant, and peas, beans, and oil have poured into Newchwang, as many as two thousand carts arriving daily when the tracks were hard-frozen, and about one thousand per day when the roads were in a less favorable state for traffic. The smaller carts are drawn by a cow with a couple of donkeys in the traces, and carry a load of sixteen piculs (a little over 113 pounds). Medium-sized carts are drawn by five animals, and can make a journey of four or five days with a load of thirty-three piculs. The largest carts are dragged along by a small horse in the shafts, with six mules, three abreast, and can make a twenty days' journey. They are mostly used for the transport of beans. The oil carts are drawn by mules only, under the care of a couple of drivers, – one walking beside the team, while the other, sitting on the top of the load, wields the whip. These teams generally make a journey of thirty or forty consecutive days, the animals resting all night in the inn yards, without shelter or clothing, under a semi-arctic climate. The commissioner confidently expects that railways constructed to Newchwang will have their usual marked effect on trade. Newchwang is situated near the Yellow Sea, and is the most northerly port of China open to foreign trade.

—The warmest place in Europe is Malaga. *The Scottish Geographical Magazine* states that it is warmer even than the Algerian coast. The mean of the daily maxima is 66.4° F., and the month of August enjoys the tropical temperature of 80.8°, while the absolute maximum reaches 110°, and the minimum, in the exceptionally cold year of 1885, was 32°. There are only forty-eight rainy days in the year. The sugar-cane and the *cherimoya* grow in the neighborhood.

—Lieut. Ryder has given, in *Petermann's Mitteilungen* (Bd. 36, No. viii.), details of the plan he intends to follow when he leads the Danish Expedition to Greenland, as announced in *The Scottish Geographical Magazine*, vol. vi. p. 270. The coast to be explored may be divided into two stretches. The first extends from Franz Josef Fiord to Cape Brewster, latitude 70° north. Scoresby drew a map of this coast in 1822; but, the main object of his voyage being to hunt whales, he could only land twice or thrice, and did not explore the inlets which penetrate far into the land between Franz Josef Fiord and Scoresby Sound. From Cape Brewster to Angmagsalik the coast is hardly known at all: it was sighted by Scoresby in 1822, and by the French naval officer, Jules de Blosseville, in 1833. Capt. Holm draughted a map of it from sketches and information supplied by the Eskimo, from which it appears that the inland ice approaches very close to the coast, and for a considerable distance descends into the sea. The expedition is to consist of nine persons,—two naval officers, a scientist, four sailors, and probably two Greenlanders from the Danish colonies on the West Coast. They will be furnished with three boats (each 22 feet long by 6 broad), a house, sleighs, tents, fire-arms, etc. They will leave Copenhagen at the beginning of June, 1891, and endeavor to form a depot of provisions at about 69° north latitude. The ship will then sail to Cape Stewart, the south-eastern extremity of Jameson Land, which, being low and slightly undulating, is well suited for winter quarters, besides having attractions for the mineralogist, and affording opportunities to the sportsman of obtaining abundance of fresh meat. When their equipment has been landed, most of the members of the expedition will go on board again, and spend the remainder of the arctic summer in exploring the fiords between Scoresby Sound and Franz Josef Fiord, after which the vessel will return home to Denmark. During the winter, scientific observations of all kinds will be taken, and, as soon as the young ice is strong enough, short journeys will be made in sleighs around the neighboring country. In the spring, longer excursions will be made up Scoresby Sound and to the inland ice. Where possible, the velocity of the glaciers will be measured, and other observations taken which may have a bearing on the numerous questions relating to the inland ice and glacial phenomena in general. At the end of June, having left the collections they may have made to be brought away by the ship, the explorers will take to the boats and follow the coast southwards. The steamer, after taking on board the collections at Cape Stewart, will make hydrographical observations to the north of Iceland and in Denmark Strait, until the time has arrived to seek the expedition at Angmagsalik. According to Capt. Holm and the statements of the Eskimo, the heavy masses of the polar ice lie, during the end of autumn, at some distance from the coast, and therefore September has been fixed as the month in which the expedition is to be taken on board. Should, however, the vessel be unable to reach the coast, or the expedition arrive too late in the season, the explorers will have to winter at Angmagsalik, and in the summer of 1893 make their way by boat to the Danish colonies on the West Coast, whence they can take a passage home in the ships of the Königl.-grönländischen Handel. A sum of 180,000 kroner (about $50,000) has been voted by the Danish Government for the equipment of the expedition.