abundantly and most intensely, with uniform air pressure, weak winds, a strong heating of the lower air strata, and a high humidity of the air.

"The storms of the temperate latitudes have, moreover, still another peculiarity, outside of their maximum action in the coldest season during a period of the greatest stability in the thermic equilibrium of the atmosphere, which stands in contradiction to the convection theory, namely, a tendency to take the same path one after the other. Upon this peculiarity Köppen has remarked before (Met. Zeit., 1874, Vol. IX., p. 380), and we need only to examine the daily weather charts to find clear examples in abundance.

"This view is wholly contrary to the facts which the true cyclones of the convection theory show, and must show. A cyclone equalizes the temperature above and below in the region through which it passes. The condensation process heats the higher layers, cools off the lower, and makes a more stable equilibrium in the atmosphere. At the same time the moisture of the lower air layers is used up, and at the same place precipitation cannot occur again through pure convection currents. The cyclones of the convection theory must diminish or become extinct, if placed where shortly before another cyclone was in activity which has disposed of the latent energy stored up in the lower layers of the atmosphere in the form of high temperature and great moisture.

"The heat thunder-storms of our summers do not show this peculiarity, and are appearances to which the pure convection theory can find full application. On the other hand, the fact that the cyclones of our latitudes often follow a path behind each other, shows that the convection theory has no application, or only a subordinate one, and that the force upon which their origin and advance depend most importantly is not in themselves, but must be sought outside. We must refer to the conditions of the general distribution of pressure and currents of the general atmospheric circulation for their origin and development.

"If we correlate the origin and forward movement of the cyclones of the temperate and high latitudes with the general circulation of the atmosphere, then the greater frequency and intensity in winter explains itself wholly, as well as all the peculiarities which the application of the pure convection theory contradicts. That also in whirls of this origin the condensation of moisture plays a greater or less secondary *rôle* no physicist can well doubt."

This is a most significant utterance and important attack upon the convection theory. Heretofore this theory has been assailed in England and this country from outside, but now the attack is from within the camp and by one of the foremost of its former defenders. The arguments, to be sure, are rather old, but they are put in a fresh dress. We welcome Dr. Hann to our side of the controversy. It should be noted that, as Miss Clerke has said, the original convection theory has been so added to and corrected it can hardly be recognized. Dr. Hann takes up only one view, and the one applicable to the summer season; but there is another view which applies to the winter, namely, that an unstable equilibrium in the atmosphere may occur whenever, through any reason, a central core becomes heated above its surroundings. This gives a less diminution of temperature with height, instead of greater, as in the other view, and at the same time causes a rising tendency in the air; this has been called the "balloon" effect. Dr. Hann will find that the "chimney" effect has been relegated to the tornado, in which the height is very much greater than the breadth.

There would seem to be no greater difficulty in accounting for the moisture and generation of a storm which follows another than in accounting for these conditions in the first. It is not supposed that a storm carries away very much from any region, but each one may feed upon the conditions which surround it. In fact, there is probably a good deal more moisture in sight and usable after a storm has passed than before, unless the first storm is followed directly by a high area, which is contrary to Dr. Hann's supposition. It does not seem as though these and other more serious objections to the old theory can longer be ignored by convectionists.

H. A. HAZEN.

Washington, D.C., Sept. 21.

BOOK-REVIEWS.

A Girl in the Karpathians. By MENIE MURIEL DOWIE. New York, Cassell. 8°. $1.50.

THAT this is an entertainingly written book of travel few will deny. The region described is one visited little, or we might say not at all, by the ordinary tourist, and the author abandoned herself to a life with the natives for the several months she was in the Karpathians.

That there are many girls like Ménie Muriel Dowie may well be doubted, and perhaps it is as well that there are not. She is certainly bright, but independent almost to a fault. In answer to those asking why she went alone, she writes: "I gaze at their indulgent, smiling eyes, and their self-satisfied faces, and I dare not tell them that I do it from sheer bold preference. I couldn't have the heart to wound and shock them so, and I say, what is perhaps also true, that I am driven to it, for nobody cares to come to the places I care to go to." That there must be a little of self-satisfaction in Miss Dowie's face, one cannot help thinking. There must be some self-reliance at least in a girl of twenty-five, as the author describes herself, who, armed with a revolver and dressed in knickerbockers, plunges into a thinly-settled region for a sojourn of months. She hails from Scotland, but a love for cigarettes does not at all conform with the general conception of a Scottish lassie's character.

But eccentricities can be overlooked in one as clever as Ménie Muriel Dowie, and the interest in her personality adds to the charm of her book. She shows her youth occasionally in the earnestness of her self-communing over the problems of life, but her account of the people she lived with is well worth reading. To be sure she tells us inadvertently that it is the way of returning travellers to swap lies, but the book shows little sign of its being a work of fiction.

AMONG THE PUBLISHERS.

THE next volume of the Contemporary Science Series, published by Chas. Scribner's Sons, will be "The Man of Genius," by Professor Lombroso. This volume, which will be issued on September 25, will be copiously illustrated.

— Messrs. Smith, Elder, & Co. have in preparation "Vertebrate Embryology," by A. Milnes Marshall, F.R.S., professor in the Victoria University, Beyer professor of Zoology in Owens College, late fellow of St. John's College, Cambridge; new, revised, and cheaper edition of Finlayson's "Clinical Manual;" new edition of Farquharson's "Guide to Therapeutics;" new edition of Part I. of MacCormac's "Surgical Operations."

— This year's volume of the Annual of the Office of Naval Intelligence, just issued from the government printing office at Washington, is the tenth in the series of general information from abroad, and retains the title of last year's number, "The Year's Naval Progress." It has a chapter on ships and torpedo-boats, one on machinery, and one each on ordnance, electricity on shipboard, and the naval manœuvres of 1890. Chapter VI. treats of the armor question in its present aspect, as viewed in the light of recent practical tests; and Chapter VII. presents a view of the different systems of coast defence of the various European States. Other chapters are devoted to high explosives, torpedo vessels, and promotion in European navies; and the final chapter gives a list of books on professional subjects.

— Messrs. Sampson Low, Marston, & Co announce: "Theory and Analysis of Ornament," applied to the work of elementary and technical schools, by Francois Louis Schauermann, for eight years head master of the wood and carving department, Royal Polytechnic, Regent Street, with 263 illustrations; "Answers to the Questions on Elementary Chemistry," theoretical and practical (ordinary course), set at the examinations of the science and art department, South Kensington, 1887-91, by John Mills, formerly of the Royal College of Science, London, author of "Alternative Elementary Chemistry," fully illustrated; "Chemistry for Students," consisting of a series of lessons based on the syllabus of the science and art department, and especially designed to facilitate the experimental teaching of elementary chemistry in schools and evening classes, by John Mills, author of "Alternative Elementary

Chemistry," etc., numerous illustrations; "A Complete Treatise on the Electro-Deposition of Metals," comprising electro plating and galvanoplastic operations, the deposition of metals by the contact and immersion processes, the coloring of metals, the methods of grinding and polishing, etc., translated from the German of Dr. George Langbein, with additions by William T. Brannt, editor of "The Techno-Chemical Receipt Book," etc., illustrated by 125 engravings; "Handwriting in Relation to Hygiene," being a paper read at the Seventh International Congress of Hygiene and Demography, London, 1891, by John Jackson, and the report of the commission of specialists appointed by the Imperial and Royal Supreme Council of Health, Vienna, 1891.

— Messrs. Blackie and Son have in the press a "Text-book of Agriculture," under the editorship of Professor R. P. Wright of the Glasgow and West of Scotland Technical College. They have also in preparation a series of "Guides to the Science Examinations" (the first number, which is nearly ready, is by Mr. Jerome Harrison of Birmingham, and deals with the examinations in physiography). Pinkerton's "Mechanics," in their series of science text-books, is about to enter a second edition, and the opportunity is being taken to adapt it to the revised requirements of the 1891 syllabus of the science and art department.

— During the coming winter Mr. Edward Arnold proposes to issue a series of popular papers on animals, by Professor C. Lloyd Morgan, the well-known author of "Animal Life and Intelligence;" "A Treatise on the Standard Course of Elementary Chemistry," by E. J. Cox, head master of the Technical School, Birmingham; and a series of scientific works by Doctor Wormell (the series will embrace text-books of mechanics, sound, light, heat, magnetism, and electricity).

— The following announcements are made by Messrs. Macmillan & Co.: "Essays on some Controverted Questions," by T. H. Huxley, F.R.S.; "Dr. Schliemann's Excavations at Troy, Tiryns, Mycenæ, Orchomenos, Ithaca, Presented in the Light of Recent Knowledge," by Dr. Carl Shuchhardt, authorized translation by Miss Eugenie Sellers, with appendix on latest researches by Drs. Schliemann and Dörpfeld, and introduction by Walter Leaf, illustrated with two portraits, maps, plans, and 290 woodcuts; "Beast and Man in India," by J. L. Kipling, with numerous illustrations by the author; "An Introduction to the Theory of Value," by William Smart; "Public Finance," by C. F. Bastable, professor of political economy, Trinity College, Dublin; "The Pioneers of Science," by Professor Oliver Lodge, with portraits and other illustrations; "Electricity and Magnetism: a Popular Treatise," by Amédée Guillemin, translated and edited, with additions and notes, by Professor Silvanus P. Thompson, with numerous illustrations, uniform with the English editions of M. Guillemin's "The Forces of Nature" and "The Application of Physical Forces;" "Island Life; or, The Phenomena and Causes of Insular Faunas and Floras," including a revision and attempted solution of the problem of geological climates, by Dr. A. R. Wallace, with illustrations and maps, new and cheaper edition; "A Complete Treatise on Inorganic and Organic Chemistry," by Sir Henry E. Roscoe, F.R.S., and Professor C. Schorlemmer, F.R.S., Vol. III. "Organic Chemistry; the Chemistry of the Hydrocarbons and their Derivatives, or Organic Chemistry," six parts, Part VI.; "A Text book of Physiology," illustrated, fifth edition, revised, Part IV. comprising the remainder of Book III. "The Senses and Some Special Muscular Mechanisms," and Book IV. "The Tissues and Mechanisms of Reproduction," by Michael Foster, F.R S., professor of physiology in the University of Cambridge; "Text-book of Comparative Anatomy," by Dr. Arnold Lang, professor of zoology in the University of Zurich, formerly Ritter professor of phylogeny in the University of Jena, issued as the ninth edition of Edward Oscar Schmidt's "Hand-book of Comparative Anatomy," translated into English by Henry M. Bernard and Matilda Bernard, with preface by Professor Ernst Haeckel, 2 vols., illustrated (Vol. I. in October); "Materials for the Study of Variation in Animals" (Part I. Discontinuous Variation), by William Bateson, Balfour student and fellow of St. John's College, Cambridge, illustrated; "The Diseases of Modern Life," by Dr. B. W. Richardson, new and cheaper edition; "Ligation in Continuity," by Drs. C. A. Ballance and Walter Edmunds, with illustrations and plates; "The Dietetic Value of Bread," by John Goodfellow; "On Colour Blindness," by Thomas H. Bickerton, illustrated (Nature Series); "The Geography of the British Colonies" — "Canada," by George M. Dawson, "Australia and New Zealand," by Alexander Sutherland; "The Algebra of Co-Planar Vectors and Trigonometry," by R. B. Hayward, F.R.S., assistant master at Harrow; "The Elements of Trigonometry," by Rawdon Levett and A. F. Davison, masters in King Edward's school, Birmingham; "Progressive Mathematical Exercises for Home Work" (in two parts), by A. T. Richardson, senior mathematical master at the Isle of Wight College, formerly scholar of Hertford College, Oxford; "The Geometry of the Circle," by W. J. McClelland, Trinity College, Dublin, head master of Santry school, illustrated; "Mechanics for Beginners," by the Rev. J. B. Lock, author of "Arithmetic for Schools," etc., Part I. Mechanics of Solids, Part II. Mechanics of Fluids; "A Graduated Course of Natural Science for Elementary and Technical Schools and Colleges," by B. Loewy, examiner in experimental physics to the College of Preceptors, Part II. Second Year's Course; "Methods of Gas Analysis," by Walter Hempel, Ph.D., translated by Dr. L. M. Dennis; "Nature's Story Books," I. "Sunshine," by Amy Johnson, illustrated.

— The Clarendon Press promises "Geography of Africa South of the Zambesi," by W. Parr Greswell; "Mathematical Papers of the late Henry J. S. Smith, Savilian Professor of Geometry in the University of Oxford," with portrait and memoir, 2 vols.; "Plane Trigonometry, without Imaginaries," by R. C. J. Nixon; "A Treatise on Electricity and Magnetism," by J. Clerk Maxwell, new edition; "A Manual of Crystallography," by M. H. N. Story-Maskelyne; "Elementary Mechanics," by A. L. Selby; "Weismann's Lectures on Heredity,' Vol. II., edited by E. B. Poulton, F.R.S.

— In the October *Educational Review* Professor James H. Blodgett, special agent of the census for statistics of education, begins the interpretation of the educational statistics of the Eleventh Census; President Francis A. Walker argues for the higher appreciation of schools of technology; Professor Herbert B. Adams traces the beginnings of university entension in America; and John T. Prince of Massachusetts describes some of his recent experiences in the German schools. Other articles are by Professor Hanus of Harvard, Superintendent Aaron Gove of Denver, Dr. Larkin Dunton of Boston, Professor Hammer of Munich, and the editors. Book reviews are by Sir William Dawson of McGill College, Montreal, Professor B. I. Wheeler of Cornell, Professor Garnett of the University of Virginia, Professors Hyslop and Jackson of Columbia, Professor Sanford of Stanford University, Superintendent Calkins of New York, and the editors. This issue also contains the full text of the English act known as the "Elementary Education Act, 1891," which introduces free education on a large scale.

— The Cambridge University Press announces: "Catalogue of Scientific Papers Compiled by the Royal Society of London," new series for the years 1874–1883; "The Collected Mathematical Papers of Arthur Cayley, Sc.D., F.R.S., Sadlerian professor of pure mathematics in the University of Cambridge," Vol. IV. (to be completed in ten volumes); "A History of the Theory of Elasticity and of the Strength of Materials," by the late I. Todhunter, F.R.S., edited and completed by Karl Pearson, professor of applied mathematics, University College, London — Vol. II. Saint Venant to Sir William Thomson;" "A Treatise on Elementary Dynamics," new and enlarged edition, by S. L. Loney, fellow of Sidney Sussex College; "Solutions of the Examples in a Treatise on Elementary Dynamics," by the same author; "A Treatise on Thermo-dynamics," by J. Parker, fellow of St. John's College, Cambridge; "A History of Epidemics in Britain," Vol. I., from A.D. 664 to the extinction of plague in 1666, by Charles Creighton, M.D., formerly demonstrator of anatomy in the University of Cambridge; "Catalogue of Type Fossils in the Woodwardian Museum, Cambridge," by H. Woods, of St. John's College, with preface by Professor T. McKenny Hughes; "Examination Papers for Entrance and Minor Scholarships and Exhibitions in the Colleges of the University of Cambridge" — Part I. Mathematics and

Science, Part II. Classics, Mediæval and Modern Languages, and History (Michaelmas Term, 1890), Part III. Mathematics and Science, Part IV. Classics, Law, and History (Lent Term, 1891); and three volumes in the Pitt Press Mathematical Series — "An Elementary Treatise on Plane Trigonometry for the Use of Schools," by E. W. Hobson, fellow of Christ's College, Cambridge, and university lecturer in mathematics, and C. M. Jessop, fellow of Clare College; "Arithmetic for Schools," by C. Smith, master of Sidney Sussex College, Cambridge; "Solutions to the Exercises in Euclid, Books I.–IV.," by W. W. Taylor.

— A portrait of James Russell Lowell, made from a recent photograph, forms the frontispiece of the September *Writer*, which is a Lowell memorial number. The magazine opens with an article on "Lowell in Private Life," by John H. Holmes of Cambridge, brother of Oliver Wendell Holmes, and for years an intimate social companion of Mr. Lowell. Following this are personal tributes to Mr. Lowell, written at the request of the editor of the *Writer*, by Francis Ellingwood Abbott, C. A. Bartol, James Parton, Laurence Hutton, George Makepeace Towle, Thomas Nelson Page, Frank R. Stockton, Edward Everett Hale, N. P. Gilman, Edward Eggleston, Lucretia P. Hale, Edwin Lassetter Bynner, Margaret J. Preston, Agnes Repplier, Ernest Ingersoll, Arthur Gilman, George Parsons Lathrop, Oscar Fay Adams, James Jeffrey Roche, W. H. Furness, Louise Imogen Guiney, Joel Benton, Thomas S. Collier, Danske Dandridge, Lucy Larcom, Arlo Bates, Sylvester Baxter, Noah Brooks, Kate Field. An interesting comparison between Lowell and Matthew Arnold is made by Edward T. McLaughlin, assistant professor of English at Yale College. The *Writer* is working, in the interest of writers, for a reduction of postage rates on manuscripts, which now go at letter rates.

— J. B. Lippincott Company have published "The Natural History of Man," by Alexander Kinmont, being a series of lectures originally delivered and published some fifty years ago. The author was a Scotchman by birth and education, but settled in the United States when a young man, and labored here as clergyman and teacher. The subjects of the lectures are certain phases of human nature and human history, such as the races of mankind, the origin and uses of language, the predominance of the religious sentiment in early ages, the elements of American civilization, etc., all of which are treated from a religious point of view. There is no unity of plan in the book, so far as we can discover; but many of the topics are well handled, though without any striking originality. The distinguishing characteristic of the book is a simple and unaffected piety, which in these days of skepticism and half-hearted belief is refreshing. The moral tone of the lectures is also excellent, and the style is easy and flowing, though somewhat diffuse. The author's science and history are sometimes at fault, and there are passages in the book which could not have been written at the present day; yet to persons of a religious temper these lectures will be a source of interest and profit.

— Messrs. Longmans, Green, & Co. announce a new volume of "Fragments of Science: being Detached Essays, Addresses, and Reviews," by John Tyndall, F.R.S.; "About Ceylon and Borneo: being an Account of Two Visits to Ceylon, One Visit to Borneo, and how I Came Home and was Rocked to Sleep on the Bosom of — well, 'The Suez Canal,'" by Walter J. Clutterbuck, author of "The Skipper in the Arctic Seas," and joint author of "Three in Norway," and "B.C. 1887," with illustrations; "Anthropological Religion," the Gifford lectures delivered before the University of Glasgow in 1891, by F. Max Müller; "An Introduction to Human Physiology," being the substance of lectures delivered at the St. Mary's Hospital medical school from 1885 to 1890, by Augustus D. Waller; "Elements of Materia Medica and Therapeutics," with numerous illustrations, by C. E. Armand Semple, M.R.C.P. Lond., member of the Court of Examiners, and late senior examiner in arts at Apothecaries' Hall, etc.; "Outlines of Theoretical Chemistry," by Lothar Meyer, professor of Chemistry in the University of Tübingen, translated by Professors P. Phillips Bedson and W. Carleton Williams (this book, of about 200 pages, gives a concise account of the theories of modern chemistry, which, it is expected, will not only be of use to advanced students, but will also enable those who take a general interest in science, but are unfamiliar with the details of chemical investigation, to gain a general idea of the development of theoretical chemistry); "The Dynamics of Rotation," by A. M. Worthington, professor of physics, and head master of the Dockyard School, Portsmouth; "The Principles of Chemistry," by D. Mendeléef, professor of chemistry in the University of St. Petersburg, translated by George Kamensky, A.R.S.M. of the Imperial Mint, St. Petersburg, and edited by A. J. Greenaway, sub-editor of the Journal of the Chemical Society, 2 vols.; "A Manual of the Science of Religion," by Professor Chantepie de la Saussaye, translated by Mrs. Colyer Fergusson (*née* Max Müller), revised by the author; "Solutions: being an English translation (by M. M. Pattison Muir) of Book IV. Vol. I. of the second edition of Ostwald's 'Lehrbuch der allgemeinen Chemie.'"

— Messrs. A. and C. Black have in preparation: "Manual of Chemistry," by Dr. Alexander Scott, Durham; "Manual of Botany," by Dr. Scott, Bickley; "Dictionary of Birds," by Professor Alfred Newton and Dr. Gadow.

— Among the contents of the current number of the "Proceedings of the United States Naval Institute" are "Explosives and Ordnance Material," by S. H. Emmens; "The Effect of Waterline Damage on the Stability of Unarmored War-ships," by Charles Hemje; "Naval Reserve and Naval Militia," by Lieut. J. C. Soley, U.S.N.; "The Final Improvement of the Steam-Engine," by Dr. R H. Thurston; and the usual amount of professional and bibliographical notes.

— Among the most notable of standard and miscellaneous works announced by D. Appleton & Co. for publication will be Père Didon's "Life of Christ," in two volumes, with maps and forty-eight full-page illustrations; the third volume of Professor J. B. McMaster's "History of the People of the United States;" a new edition of Herbert Spencer's "Essays," with additions, in three volumes; "The Life of James Boswell" (two volumes), by Percy Fitzgerald, with four portraits; "Lady Dufferin's Journal of her Life in Canada," illustrated; "The Cause of the Ice Age," by Sir Henry Ball; "Man and the Glacial Period," by Professor G. Frederick Wright; "The Farmer's Side," by Hon. W. A. Peffer, United States Senator from Kansas; "Herbart's Psychology," translated by Margaret K. Smith; "The Courses of Study for Schools and Colleges," by W. T. Harris, United States commissioner of education; "Applied Psychology and Art of Teaching," by J. Baldwin; "Laboratory Practice," by Professor J. P. Cooke; and "The Dog in Health and Disease," by Wesley Mills, M.D.

— Amid all the wild speculation that is floating about just now respecting the overflow of the Colorado River into the desert, it is instructive to read such an article as the one in the October *Scribner* on "The New Lake in the Desert," by Major J. W. Powell, Director of the United States Geological Survey, who brings to the subject a thorough knowledge of natural conditions, and overthrows many extravagant theories both as to the past and future of the phenomenon. J. N. Hall, M.D., a hunter of experience, has an article in the same number of unique interest and of practical value to all sportsmen, on "The Actions of Wounded Animals;" and in an interesting article on "The Biography of the Oyster," whose life history we have hardly before properly appreciated, Mr. Edward L. Wilson, the well-known traveller and photographer, gives the following figures as representing the work of but one of the important centres of the oyster industry, "The Delaware Bay and Maurice River Cove Oyster Association" of New Jersey. In the fall of the year, when the business is at its height, from thirty to forty car-loads leave there daily, each one carrying away 100 sacks or barrels of oysters averaging 1,000 oysters. Thus from 3,000,000 to 4,000,000 are shipped daily.

— According to Bulletin No. 14 of the Iowa Agricultural Experiment Station, the clover seed caterpillar (*Grapholitha interstinctana*), which is described and figured in different stages, has been abundant and detructive, and the conclusion is reached that cutting the clover and storing it while the caterpillars are still in the clover heads results in the entire destruction of the insect. The same bulletin states that experiments with hopper dozers for grass-leaf hoppers show that this method can be used very suc-

cessfully in capturing the insects; that the simplest form, a flat piece of sheet-iron, was most satisfactory; that one application resulted in adding thirty-four per cent to the crop of hay on a plat experimented on, and at one experiment leaf-hoppers were captured at the rate of 376,000 per acre. Kerosene emulsion for plant lice was used once with poor success, but later an application of a good emulsion by thorough methods resulted in complete success. Grasshoppers are mentioned as troublesome this season, and reports of Rocky Mountain grasshoppers are referred to. No present damage to Iowa is apprehended from this latter species, and methods of controlling the common native species, when numerous, are discussed. The flavescent clover weevil is found abundant at Ames. Its distribution is referred to and its method of work described. Information regarding its occurrence in other parts of the State is requested. The wheat-bulb worm has occurred in moderate numbers, but abundant parasites have been found to attack it at Ames, and its serious multiplication is not considered probable.

— M. E. Heckel of Marseilles has recently described an interesting case of mimicry which may be frequently seen in the south of France. The mimic, *Nature* states, is a spider, *Thomisus onustus*, which is often found in the flowers of *Convolvulus arvensis*, where it hides itself for the purpose of snaring two Diptera, *Nomioides minutissimus* and *Melithreptus origani*, on which it feeds. Convolvulus is abundant, and three principal color variations are met with: there is a white form, a pink one with deep pink spots, and a light pink form with a slight greenishness on the external wall of the corolla. Each of these forms is particularly visited by one of three varieties of *Thomisus*. The variety which visits the greenish form has a green hue, and keeps on the greener part of the corolla; that which lives in the white form is white, with a faint blue cross on the abdomen, and some blue at the end of the legs; the variety which lives in the pink form is pink itself on the prominent parts of the abdomen and legs. If the animal happens to live on *Dahlia versicolor* the pink turns to red, and if it lives in a yellow flower — *Antirrhinum majus*, for instance — it becomes yellow. At first Professor Heckel supposed the three varieties of *Thomisus* to be permanent, but he discovered accidentally that any one of these peculiarly colored spiders, when transferred to a differently colored flower, assumes the hue of the latter in the course of a few days; and when the pink, white, green, and yellow varieties are confined together in a box, they all become nearly white.

— During the nesting season the male ostrich seems to be anything but an agreeable creature. In a paper lately read before the Royal Society of Tasmania (*Nature*, Sept. 10), Mr. James Andrew says that at that period the bird is most pugnacious, and may only be approached in safety with great precaution. He resents the intrusion of any visitors on his domain, and proves a most formidable opponent. His mode of attack is by a series of kicks. The leg is thrown forwards and outwards, until the foot, armed with a most formidable nail, is high in the air; it is then brought

down with terrific force, serious enough to the unhappy human being or animal struck with the flat of the foot, but much worse if the victim be caught and ripped by the toe. Instances are known of men being killed outright by a single kick, and Mr. Andrew remembers, whilst on a visit in the neighborhood, that on a farm near Graaff Reinet a horse's back was broken by one such blow aimed at its rider. If attacked, a man should never seek safety in flight; a few yards and the bird is within striking distance, and the worst consequences may result. The alternative is to lie flat on the ground, and submit with as much resignation as possible to the inevitable and severe pummelling which it may be expected will be repeated at intervals until a means of escape presents itself, or the bird affords an opportunity of being caught by the neck, which, if tightly held and kept down, prevents much further mischief. Under such circumstances, however, Mr. Andrew has known a bird, with a badly-calculated kick, strike the back of its own head, scattering the brains — "a serious loss of valuable property to the farmer."

— Messrs. Tiffany & Co. have on exhibition a gold medal, weighing 4,296 grains, that was struck by order of the Prussian government as a recognition of the services rendered to science by Alexander von Humboldt. The medal is two and a half inches in diameter. On one side is the head of Alexander von Humboldt, with the name above, and the date, 1847, below, in Latin letters. This is interesting because the die has been so given the appearance of undercutting that the reverse of the head can be seen on the polished surface of the medal. On the reverse side are the signs of the Zodiac arranged around the edge, and in the centre is a figure of Science, with the right hand unveiling a Goddess of Plenty. From the other hand is a line and plummet, sounding the depths of the sea, in which are dolphins and other forms of marine life. On the border, in minute letters, are the names of the designer, the renowned fresco painter, P. von Cornelius, and the artist who cut the die, K. Fischer. This is the original medal given to Humboldt. The only duplicate was given to the king at the time it was made.