heat-engine, but he showed the limitations to the efficiency of such an engine, and the directions in which improvement might be looked for. As a result, we have the triple-expansion engines of the ocean greyhounds.

But all this work was far in advance of the thought of his time, and was destined to remain unappreciated for years after the author's death, which took place Aug. 24, 1832.

AMONG THE PUBLISHERS.

A TIMELY article on "A Tornado's Power," by William A. Eddy, in *Harper's Weekly* for July 26, gives a vivid description of the destructive tornado of July 13, near St. Paul, Minn. The article is accompanied by four illustrations.

— In an article in the August *Lippincott*, on "Milk-Legislation," R. M. Elfreth presents the European legislative methods for preserving the purity of this important article of diet, and suggests to our own legislators certain wise provisions. Charles Morris contributes a sketch of the Philadelphia Academy of Natural Sciences.

—Mr. Edward Atkinson is to publish in *The Popular Science Monthly* for August and September two extended and important articles on the revision of the tariff, under the title "Common Sense applied to the Tariff Question." Like other articles in the field of political science which appear in the monthly, these papers will discuss the subject with a refreshing disregard of partisan advantage. In the first of these, which will open the August number, he shows the incompetence of American legislators and government officers in dealing with financial questions, and, without taking extreme ground, goes on to point out weighty business considerations which should determine the direction of tariff reform

- A dozen articles are included in the Westminster Review for July, issued in this country, by authority of the English publishers, by the Leonard Scott Publication Company, New York. A. Amy Bulley writes on "The Political Evolution of Women;" James W. Davis discusses the Sunday opening of public libraries, art-galleries, and museums; William Trant writes on "Prairie Philosophy," presenting a picture of social and daily life in the great Canadian North-west; Professor Andrew Gray writes on "Technical Education in Wales;" R. Seymour Long reviews the civil struggle in England in the seventeenth century, in a paper entitled "The Case for the Commonwealth;" E. F. Hannigan contributes an essay on "Genius and Moral Responsibility;" Janet E. Runtz Rees relates the experience of a bread-winner in an article on "Wage Value in America;" G. S. Godkin writes on "Old Italy versus Young Italy;" Theal's "History of South Africa," and some of the most important of recent novels, are reviewed; an anonymous writer discusses the rights of labor; and the usual monthly review of home affairs treats of the latest developments in English political life.

- Edward Marston, the veteran London publisher, writing in the August Scribner about "How Stanley wrote his Book," gives the following particulars of the materials from which it was made: "Mr. Stanley's memory of names, persons, and events, is quite marvellous, but in the compilation of his book he by no means trusted to his memory. His constant habit was to carry a small note-book, six by three inches, in his side-pocket. In this he pencilled notes constantly and at every resting-place. Of these note books he has shown me six, of about one hundred pages each, closely packed with pencil memoranda. These notes, at times of longer leisure, were expanded into six larger volumes, of about two hundred pages each, of very minute and clear writing in ink. In addition to these field note-books and diaries, there are two large quarto volumes, filled from cover to cover with calculations of astronomical observations," etc. He also tells this story of Stanley while at work on his great book: "Sali, the black boy who travelled with him throughout his long and perilous expedition, is a youth of some resource. Until this terrible book had got into his master's brain, he had been accustomed to free access to him at all hours; but now things were different. Every time he approached the den, the least thing he expected was that the ink-stand would be thrown at his head. He no longer ventured

therein. One day he originated a new way of saving his head: he had a telegram to deliver, so he ingeniously fixed it on the end of a long bamboo, and, getting the door just ajar, he poked it into the room, and bolted."

- A copiously illustrated account of the missions and mission Indians of California will be contributed to the August Popular Science Monthly by Henry W. Henshaw. He represents the rule of the priests as more conducive to the numerical growth of the Church and the profit of the missions than to the welfare of the Indians. A picture of Ramona and her children standing at the door of her hut is one of the illustrations. Mr. Bernard Hollander of London will contribute to the same number an illustrated paper on "Centres of Ideation in the Brain." It will show how the experiments of modern physiologists support some of the observations of the early phrenologists, though by no means indorsing all that the name "phrenology" implies. There will also be an article on "Ancient and Modern Ideas of Hell," by Frederik A. Fernald. It will doubtless prove very seasonable just now, when the air is full of the proposed revision of certain Presbyterian doctrines. Other articles are "Thunder-Storms," by Robert H. Scott; "A Queer Pet," by Miss E. W. Bellamy; and "The Uses of Animal Color," by Edward B. Poulton.

-The last two issues of the American Historical Association contain some papers of interest. The January number is partly occupied by the secretary's report and the list of members, which show the society to be in a flourishing condition, the number of members having increased, since the formation of the society six years ago, from forty to six hundred and twenty. The same number contains a paper by President Adams of Cornell, on "Recent Historical Work in the Colleges and Universities of Europe and America," which shows clearly, that, notwithstanding the improvements of the last few years, we are still in the rear of other nations in this department of study. It seems to us, however, that President Adams overrates the usefulness of the German seminary courses, which are mainly devoted to the mere study of facts; and that what we need are courses like those at Oxford and Cambridge, in which special attention is given to the formation of a true historical judgment as to the significance of events. The study of historical facts is very simple, as is proved by the ease with which young men learn it; but the formation of a judgment that can properly interpret history requires a far more elaborate culture, and ought, therefore, to be the chief object of attention. The April number of the association's papers is entirely devoted to a sketch of the origin of the national scientific and educational institutions of the United States, written by Dr. G. Brown Goode of the Smithsonian Institution. The author begins with an account of the formation of the American Philosophical Society at Philadelphia in 1769 and the American Academy of Arts and Sciences at Boston in 1780, both of which are still in existence. He then recounts the efforts of Washington, Joel Barlow, and others, to found a national university at the national capital, -efforts that have often been renewed since, though as yet without success. Special attention is given to the organization of the Coast and Geological Surveys, and some account is given of the earliest exploring expeditions. The foundation of the Smithsonian Institution is of course described, and particular attention is devoted to the organization and development of the weather service. Dr. Goode writes with an enthusiasm that makes his paper interesting, and we commend it especially to scientific readers. The papers of the association are published quarterly at one dollar each, by G. P. Putnam's Sons, New York.

— The American Academy of Political and Social Science was organized last December in Philadelphia, and now gives to the public the first number of its Annals. We wish we could say that the papers contained in it are superior to others on similar subjects that have appeared elsewhere; but they have the same superficiality that characterizes so much of American thought and scholarship. The best paper in the number is the opening one, by J. G. Bourinot, on "Canada and the United States." The author compares the government of his own country with ours, and, while admitting the superiority of ours on some points, shows

that we might copy some things from Canada with benefit to ourselves. In particular, he shows the advantages of a responsible ministry, which is the leader of legislation as well as of administration. Mr. Simon N. Patten has a curious paper on "Decay of Local Government in America," in which he contends that our State and local governments have "a mere nominal existence," which we take leave to say is absurd. The next article, by. J. B. Clark, is on "The Law of Wages and Interest." It is based on Jevons's theory of final utility, but does not seem to us to shed any new light upon the problem. Mr. F. H. Giddings discusses the province of sociology, but fails to prove even the existence of such a science, or to state any of its principles. Following this paper are some tables by Leo S. Rowe, giving the courses of study in public law and economics in the German universities, and also an account by Jane J. Wetherell of a new kind of railway passenger tariff recently adopted in Hungary. It is impossible for us to describe it here, and its success is still problematical; but railroad managers will doubtless take an interest in reading about it. A variety of notes and book-reviews fill out the number. The Annals is published for the academy by A. L. Hummel of Philadelphia at one dollar a number.

—The July number of the Nineteenth Century, issued in this country, under authority of the English publishers, by the Leonard Scott Publication Company, New York, begins the twentyeighth volume, and is a brilliant number. Sir J. Pope Hennessy opens it with a brief paper entitled "The African Bubble," in which he briefly discusses the relative positions of England and Africa on this important question engaging the attention of the world. Professor Huxley takes the new theological book, "Lux Mundi," as a text for the scientific interpretation of Scripture in an article entitled "Lux Mundi and Science." He directs his special attention to the story of the Flood, and his criticisms will doubtless have wide reading. T. W. Russell, M.P., writes on "Compensation or Confiscation," in which he takes up the subject of the political treatment of the temperance question in Parlia-

ment. Mlle. Blaze de Bury has an article on "The French Opera," in which she traces its history from its beginnings to the present time. The editor, Mr. Knowles, raises the question of memorials in Westminster Abbey, and explains, with the aid of two plans, how much room there is still unoccupied. The King of Sweden concludes his memoir of Charles XII., dealing with the later years of the hero's life. Henry Snow discusses one of the most important questions of the day in a paper on "The Increase of Cancer: its Probable Cause." An article on "Official Polytheism in China," by A. C. Lyall, treats of the official religion of China, and the extent to which it permeates official society. Frederick Greenwood, the late editor of the Pall Mall Gazette, and one of the foremost of English journalists, writes on "The Press and Government," and shows how intimate the connection between the two sometimes is. Oscar Wilde contributes the first part of a dialogue entitled "The True Function and Value of Criticism, with Some Remarks on the Importance of doing Nothing." Mr. Wilde expounds the nature of criticism as he understands it, in a thoroughly characteristic manner. Arthur V. Palmer tells what he saw at Tel-el-Kebir, which is interesting as being the testimony of an eye-witness. Earl Grey discusses the Irish Purchase Bill. J. L. Mahon writes on "The Crisis in the Post-Office," treating of conditions which are not without importance in determining, in the future, the relations of trades-unions to government work.

- The Chautauquan for August presents, among other matter, "The Condition of American Agriculture," by Manly Miles, M.D.; "A Sixteenth Century Garden," by Ferdinand Cohn; "Country Life in Ireland," by J. P. Mahaffy, M.A.; "Keeping Well in Summer," by Felix L. Oswald, M.D.; "The Minor Lakes of the Northwest," by Horace B. Hudson; "Women Physicians in Germany," by A. Von Strande; "Economical Grocery Buying," by Christine Terhune Herrick; "Brain-Workers' Recreation in Flowers," by Sarah K. Bolton; "Out-door Life at Wellesley," by Louise Palmer Vincent; and "Children's Wit," by Margaret J. Preston.

Publications received at Editor's Office. June 30-July 19.

ABEL Mrs. Mary Hinman. Practical Sanitary and Economic Cooking adapted to Persons of Moderate and Small Means. (Lomb Prize Essay.) Rochester, N.Y., Amer. Pub. Health Assoc. 190 p. 12°.

Annals of the American Academy of Political and Social science. Vol. I. No. 1. July, 1890. q. Philadelphia, A. L. Hummel. 164 p. 8°. \$3 per year; with supplements, \$5.

year; with supplements, \$5.

Baker, A. L. Elliptic Functions. New York, Wiley. 118 p. 8°. \$1.50.

Blackmar, F. W. The History of Federal and State Aid to Higher Education in the United States. Washington, Government. 343 p. 8°.

Chambers, G. F. A Handbook of Descriptive and Practical Astronomy. III. The Starry Heavens. 4th ed. Oxford, Clarendon Pr. 384 p. 8°. (New York, Macmillan, \$3.50.)

Childs, G. W. Recollections of General Grant-Philadelphia, Collins Printing House. 104 p. 48°.

Philadelphia, Collins Printing House. 104 p.
48°.

CHISHOLM, G. G., and LEETE, C. H. Longmans'
School Geography for North America. New
York, Longmans, Green, & Co. 384 p. 12°. \$1.25.

CLARK, W. G. History of Education in Alabama,
1702-1889. Washington, Government. 281 p. 8°.
DAVIS, E. W. An Introduction to the Logic of Algebra. New York, Wiley. 119 p. 8°. \$1.50.

GURNEY, E. H. Reference Handbook for Readers,
Students, and Teachers of English History.
Boston, Ginn. 125 p. 12°. 85 cents.

Hyde, E. W. The Directional Calculus, based upon,
the Methods of Hermann Grassmann. Boston
Ginn. 247 p. 8°. \$2.15.

MYEROVITCH, M. The Origin of Polar Motion. Chicago, Rosenberg Bros., Pr. 32 p. 8°.

NEW JERSEY. Final Report of the State Geologist.
1889. Vol. II. Part I. Trenton, J. L. Murphy
Publ. Co. 642 p. 8°.

PICKARD, J. L. School Supervision. New York, Appleton. 175 p. 12°. \$1.

RAYMOND, M. G. Les Grands Centres d'Action de
l'Atmosphère. Paris, Gauthier-Villars. 84 p.
12°.

'Texas, First Annual Report of the Geological Sur-

12°.
Texas, First Annual Report of the Geological Survey of, 1889. Austin, State. 410 p. 4°.
U. S. Geographical Surveys West of the One Hundredth Meridian. Vol. I. Geographical Report, 1889. Washington, Government. 780 p. 4°.
Wells, E. R., jun., and Kelly, J. W. English-Eskimo and Eskimo-English Vocabularies. Washington, Government. 72 p. 8°.

PRACTICAL **ELECTRICAL NOTES** AND DEFINITIONS.

For the use of engineering students and practical men by W. P. MAYCOCK, together with Rules and Regulations to be observed in Electrical Installation Work, with diagrams. 130 pages, 32mo, cloth, 60 cts. E. & F. N. SPON, 12 Cortlandt St., New York

HEAVEN AND HELL. 416 p., paper.

BIVINE LOVE AND WISDOM.
383 p., paper. By EMANUEL SWEDENBORG.
Mailed, prepaid, for 14 cents cook Mailed, prepaid, for 14 cents each (or 25 cents for both), by the American Swedenborg P. and P. Society, 20 Cooper Union, N.Y. City.

BOOKS

50,000 vols. of ancient and modern rare and scarce books offered for sale. Send for books tried to obtain elsewhere without success. American, British, German and French Books. Catalogues mailed free to Bookbuyers.

C. N. CASPAR, Book Emporium 437 E. W. St., Milwaukee

BOOKS: How to Exchange them for others, Send a postal to the SCIENCE exchange column (insertion free), stating briefly what you want to exchange. SCIENCE, 47 Lafayette Place,

Have you a friend who, for fashion's sake, submits to physical deformity? Would he or she not be interested in Professor Flower's "Fashion in Deformity?"

Sent postpaid on receipt of 50 cents.

SCIENCE BOOK AGENCY

47 Lafayette Place, New York.

Old and Rare Books.

Back numbers Atlantic, Century, Harper, and Scribner, to cents per copy, other magazines equally low. Send for a catalogue.

A. S. CLARK, Bookseller,

34 Park Row, New York City.

ACK NUMBERS and complete sets of leading Magazines. Rates low. AM. MAG. EXCHANGE, azines. Rates low. Schoharie, N.Y.

Parallel Edition of the Classics.

Translation of Caesar. Translation of Vergil.

The first four books of Cæsar's commentaries on the Gallic War. 12mo, cloth, price, \$1. 12mo, cloth, price, \$1.

The first six books of Vergil's Æneid.

Arranged with the original Latin on the left-hand page, and a correct translation on the right-hand page opposite. The convenience of this arrangement cannot be overestimated.

A. LOVELL & CO., Publishers, 3 East 14th Street, New York.

—Chauncey M Depew has received an autograph letter from the Prince of Wales, acknowledging the receipt of his "Orations and After-Dinner Speeches," recently published by the Cassell Publishing Company, New York. The prince expresses his thanks warmly, and indicates his belief that a perusal of the book will assist him greatly in his work of preparing the numerous addresses he is called upon to deliver on ceremonial occasions.

The fifty-eighth volume of the Contemporary Review begins with the July number, issued in this country, under authority of the English publishers, by the Leonard Scott Publication Company, New York. Mr. Bellamy opens the number with an article entitled "What Nationalism means," in which, while answering some of his most recent critics, he re defines his position, and makes his theories clearer than he has done before. Gabriel Monod discusses recent events in France in a paper entitled "On French Affairs," in which he gives large space to the relations of France and Germany. Rev. Dr. Waugh contributes an exhaustive paper on "Child-Life Insurance," dealing with both the practical and theoretical parts of the question. Graham Sandberg has an important paper on "A Journey to the Capital of Thibet," based on the notes of the celebrated Hindoo scholar Chandra Das. This narrative is now made public for the first time, having been suppressed for political reasons. It tells of a part of the world never before described by a European. The article is accompanied with a sketch-map of the city of Lhasa, the capital of Thibet. Dr. Thomas Dolan writes on "M. Pasteur and Hydrophobia," devoting himself to an examination of the practical work of the famous Frenchman in this field. Sidney Webb contributes a thoughtful paper on "The Reform of the Poor Law," treating of the latest attempts to ameliorate the condition of the working-classes. Joseph Pennell, the well-known artist, tells of a new profession wanting professors, in a paper on "The Possibilities of Illustration." Professor John Rae continues

the discussion of a betterment tax, which has lately been prominent in this review. The number closes with two brief papers on "Compensation for Licenses," — one by E. N. Buxton, and the other by Andrew Johnston.

-The forty-eighth volume of the new series of the Fortnightly Review begins with the July number, just issued by the Leonard Scott Publication Company, New York, under authority of the English publishers. It opens with a symposium on "The Actor-Managers," by Henry Arthur Jones and Herbert Beerbohm Tree. This subject has recently attracted much attention both here and abroad, and the present papers form an important contribution to the controversy. E. B. Lanin writes on "Russian Prisons: The Simple Truth," and draws a very dark picture of the realities of Russian prison-life. George Moore writes on "Meissonier and the Salon Julian," describing the origin of the Salon and the recent rupture between it and the artists. Edmund Gosse writes on "The Protection of American Literature," basing his paper on the late discussion in Congress on the copyright bill. J. Scott Keltie contributes a résumé of Mr. Stanley's expedition, dealing with its conduct and the results as viewed from a scientific standpoint. Madame James Darmesteter writes on "The Workmen of This paper, of which the first portion is now published. compares the condition of the Parisian workmen in the fourteenth and nineteenth centuries, and aims to portray a picture of actual life. John Addington Symonds presents some passages of Italian travel in an article entitled "Among the Euganean Hills." Three important papers on Germany and England in Africa, presenting as many phases of the subject, close the number. The writers are H. H. Johnston, V. Lovett Cameron, and Ernest W. Beckett. These papers are doubtless the most important contributions yet made to this subject, and are invaluable to those who would correctly understand the momentous events now transpiring in the Dark Continent.

CATARRH.

Catarrhal Deafness-Hay Fever.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N.B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son. 337 and 339 West King Street. Toronto, Canada.—Christian Advocate.

Sufferers from Catarrhal troubles should carefully read the above.

OF WHAT USE IS THAT PLANT?

You can find the answer in

SMITH'S "DICTIONARY OF ECONOMIC PLANTS."

Sent postaid on receipt of \$2.80. Publisher's price, \$3.50.

SCIENCE BOOK AGENCY,

47 Lafayette Place, New York.

Sanitarians

Universally recognize the necessity of DISINFECTION, and the difficulty heretofore existing of securing it. Fortunately this is now overcome, and by using the Sherman "King" Vaporizer a supply of

Pure Air

is secured for every office, church, or other public building. It is the ONLY self-acting, continuous, and absolute

Antiseptic Disinfectant KNOWN, PROVED, and WARRANTED.

Each Vaporizer sold charged for use. No care except to replenish once in two months at expense of 4 to 8 cents, according to size. Three sizes, \$3.50, \$5, \$8. Illustrated Pamphlet free to all.

SHERMAN "KING" VAPORIZER COMPANY, Chicopee Falls, Mass.; Boston, New York, Philadelphia, or Chicago.

POPULAR MANUAL OF VISIBLE SPEECH AND VOCAL PHYSIOLOGY.

For use in Colleges and Normal Schools. Price 50 cents. Sent free by post by

N. D. C. HODGES, 47 Lafayette Place, New York

A New Method of Treating Disease.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

A TEMPORARY BINDER

for Science is now ready, and will be mailed postpaid on receipt of 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, Science is always convenient for reference.

N. D. C. HODGES,

47 Lafayette Place, N. Y