

I care not what the end may be. I do care that the inquiry shall be conducted by us, and that we shall be free from the disgrace of jogging along accustomed roads, leaving to outsiders the work, the ridicule, and the gratification of unfolding a new region to unwilling eyes.

It may be held that such investigations are not physical and do not concern us. We cannot tell without trying. In that I trust my instinct: I believe there is something in this region which does concern us as physicists. It may concern other sciences too. It must, one would suppose, some day concern biology; but with that I have nothing to do. Biologists have their region, we have ours, and there is no need for us to hang back from an investigation because they do. Our own science of physics, or natural philosophy in its widest sense, is the king of sciences, and it is for us to lead, not to follow.

And I say, have faith in the intelligibility of the universe. Intelligibility has been the great creed in the strength of which all intellectual advance has been attempted, and all scientific progress made.

At first things always look mysterious. A comet, lightning, the aurora, the rainbow—all strange, anomalous, mysterious apparitions. But scrutinized in the dry light of science, their relationship with other better-known things becomes apparent. They cease to be anomalous; and though a certain mystery necessarily remains, it is no more a property peculiar to them, it is shared by the commonest objects of daily life.

The operations of a chemist, again, if conducted in a haphazard manner, would be an indescribable medley of effervescences, precipitations, changes in color and in substance; but, guided by a thread of theory running through them the processes fall into a series, they all become fairly intelligible, and any explosion or catastrophe that may occur is capable of explanation too.

Now I say that the doctrine of ultimate intelligibility should be pressed into other departments also. At present we hang back from whole regions of inquiry, and say they are not for us. A few we are beginning to grapple with. The nature of disease is yielding to scrutiny with fruitful result; the mental aberrations and abnormalities of hypnotism, duplex personality, and allied phenomena, are now at last being taken under the wing of science after long ridicule and contempt. The phenomenon of crime, the scientific meaning and justification of altruism, and other matters relating to life and conduct, are beginning, or perhaps are barely yet beginning, to show a vulnerable front over which the forces of science may pour.

Facts so strange that they have been called miraculous are now no longer regarded as entirely incredible. All occurrences seem reasonable when contemplated from the right point of view, and some are believed in which in their essence are still quite marvellous. Apply warmth for a given period to a sparrow's egg, and what result could be more incredible or magical if now discovered for the first time. The possibilities of the universe are as infinite as is its physical extent. Why should we grope with our eyes always downward, and deny the possibility of everything out of our accustomed beat.

If there is a puzzle about free-will, let it be attacked: puzzles mean a state of half-knowledge. By the time we can grasp something more approximating to the totality of things the paradoxity of paradoxes drops away and becomes unrecognizable. I seem to myself to catch glimpses of clews to many of these old questions, and I urge that we should trust

consciousness, which has led us thus far; should shrink from no problem when the time seems ripe for an attack upon it, and should not hesitate to press investigation, and ascertain the laws of even the most recondite problems of life and mind.

What we know is as nothing to that which remains to be known. This is sometimes said as a truism; sometimes it is half doubted. To me it seems the most literal truth, and that if we narrow our view to already half-conquered territory only, we shall be false to the men who won our freedom, and treasonable to the highest claims of science.

I must now return to the work of this section, from which I have apparently wandered rather far afield, further than is customary—perhaps further than is desirable. But I hold that occasionally a wide outlook is wholesome, and that without such occasional survey, the rigid attention to detail and minute scrutiny of every little fact, which are so entirely admirable and are so rightly here fostered, are apt to become unhealthily dull and monotonous. Our life-work is concerned with the rigid framework of facts, the skeleton or outline map of the universe: and, though it is well for us occasionally to remember that the texture and color and beauty which we habitually ignore are not therefore in the slightest degree non-existent, yet it is safest speedily to return to our base and continue the slow and laborious march with which we are familiar and which experience has justified. It is because I imagine that such systematic advance is now beginning to be possible in a fresh and unexpected direction that I have attempted to direct your attention to a subject which, if my prognostications are correct, may turn out to be one of special and peculiar interest to humanity.

#### AMONG THE PUBLISHERS.

RUFUS C. HARTMANFT, Philadelphia, has prepared a little book which he will publish under the title "Was Abraham Lincoln a Spiritualist?"

—D. C. Heath & Co., Boston, will issue this month Victor Hugo's "Hernani," edited by John E. Matzke, associate in Romance languages, Johns Hopkins University.

—Max O'Rell's new volume of travels, called "A Frenchman in America," will be published by the Cassell Publishing Company, New York, late in October. In this book he gives the humorous side of his experiences as a lecturer, and he has a good deal to say about the people whom he has met, both the interesting and uninteresting ones. Mr. E. W. Kemble has made over 135 illustrations for the book.

—Now that the time of year has arrived when, according to popular tradition, "oysters are in season," every lover of that choice sea-food should be provided with a copy of Professor William K. Brooks's book, "The Oyster: a Popular Summary of a Scientific Study," recently published by the Johns Hopkins Press of Baltimore. The book is intended for all who care for oysters, whether providers or consumers; oystermen, law-makers, or students. Of it President Gilman of the Johns Hopkins University says, in a brief note of introduction to the volume, "So well is the book written that many parts of it are as fascinating as a story."

—J. B. Lippincott Company will publish immediately: "Harmony of Ancient History and Chronology of the Egyptians and Jews," by Malcolm Macdonald; "The Natural History of Man and the Rise and Progress of Philosophy," a series of lectures delivered by Alexander Kinmont; and "Truth-Gleams," a series of essays on the controlling influences in life. Among the new publications to be issued late in the month are: "A Supplement to Allibone's Dictionary of Authors," in two volumes, by John Foster Kirk; "A Handbook of Industrial Organic Chemistry," by S. P. Sadtler, and "Atlantis Arisen; or, Talks of a Tourist about Oregon and Washington," by Mrs. Frances Fuller Victor.

—Those who have profited by the study of Verschoyle's "History of Ancient Civilization" will be gratified to learn that Messrs. D. Appleton & Co. are about to publish a volume which may be called a pendant or supplement of Verschoyle's work. This is "A History of Modern Civilization," a handbook based on Gustav Ducoudray's history. In this book "the author and adapter," according to a London critic, "have reached one of the rarest results in literary work, a summary at once comprehensive and readable."

—L. Reeve & Co., London, have in preparation a new work on the "British Fungi Phycomicetes and Ustilagineæ," by George Massee, lecturer on botany for the London Society for the Extension of University Teaching; a work on the British "Hemiptera Heteroptera," by Edward Saunders; a new work on the Lepidoptera of the British Islands, by Charles G. Barrett; and a new work on the "Physiology of the Invertebrata," by Dr. A. A. Griffiths.

—The *Chautauquan* for October has several illustrated articles and the portraits of a number of prominent women. Of the articles we note "Domestic and Social Life of the Colonists," I., by Edward Everett Hale; "Land Tenure in the United States," by D. McG. Means; "The History of Political Parties in America," by F. W. Hewes; "Physical Life," I., by Milton J. Greenman; "National Agencies for Scientific Research," by Major J. W. Powell; "Science, the Handmaid of Agriculture," by George

William Hill; "Social Science in Society," by John Habberton; "The Bohemians in America," by Thomas Capek; and "The Citizenship of Crime," by Mrs. Kate Tannatt Woods.

—T. Y. Crowell & Co. have just ready, among other books, their new edition of Charles Dickens' complete works in fifteen and thirty volumes; "Making the Most of Life," by Rev. J. R. Miller, D.D.; "A Score of Famous Composers," by Nathan H. Dole; "Famous English Statesmen," by Mrs. Sarah K. Bolton; and the fourth volume of Sybel's "The Founding of the German Empire by William I."

—The present condition of the peasants in the Russian empire is the subject of a paper submitted by Vicomte Combes de Les-trade to the American Academy of Political and Social Science and published by the Academy. Every one remembers the enthusiasm which greeted the emancipation of the serfs by Alexander II. in 1861. The author of this monograph holds that he deserves credit for what he wished to do rather than for what he did. It is somewhat startling to be told by one who speaks from careful personal observation of the existing conditions that the authority of which the Seigneurs were stripped has only been transferred to the *mir*. This word and the system for which it stands are absolutely new to us. The author explains its organization and practical working, and recites the peculiar conditions under which the peasant is allowed to withdraw from the *mir* to which he belongs. The paper gives a sketch of the actual char-

Publications received at Editor's Office,  
Sept. 2-15.

- HOWARD, C. R. The Transition-curve Field-Book. New York, Wiley. 109 p. 16°.  
KINMONT, A. The Natural History of Man. Philadelphia, Lippincott. 335 p. 12°. \$1.  
NAVAL Progress, The Year's. Annual of the Office of Naval Intelligence; July, 1891. Washington, Government. 491 p. 8°.  
RAILWAY Law and Legislation. A weekly magazine of information regarding laws, etc. Vol. I. No. 1. w. Washington, D. C., Canaday & West. 20 p. 8°. \$3 per year.  
SMITH, S. A. The Source and Nature of Electricity, and Its Application to the Electro-Plating Process. Providence, Gorham M'fg Co. 35 p. 12°.  
THURSTON, R. H. A Manual of the Steam-Engine. Part I. Structure and Theory. New York, Wiley. 871 p. 8°. \$7.50.

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The federal census, statistics of commerce, statistics of production, statistics of education, finance statistics, railroad statistics, and statistics of labor are discussed briefly in turn, and the work of the different bureaus which issue statistical publications of any description is in so far described. The author is William F. Willoughby of the Department of Labor ("Publications of the American Academy of Political and Social Science, No. 35." Station B, Philadelphia. 50 cents).

—According to the *Japanese Gazette*, printed in Yokohama, "during the month of June there were 5,575 persons who took books from the Tokyo Free Library, nearly all of them in the Japanese and Chinese languages. Among the 36,687 volumes drawn, 7,482 were books of history, biography, and geography, 6,753 of law and politics, 6,600 of literature and language, 5,877 of natural philosophy and medicine, 4,174 of engineering, the arts, and industries, 2,087 of philosophy and education, and the rest were of a miscellaneous kind."

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