

meetings than by anything contained in the ponderous volumes of their transactions.

At the present day one of the aspects of American science which most strikes us is the comparative deficiency of the social element. We have indeed numerous local scientific societies, many of which are meeting with marked success. But these bodies cannot supply the want of national coöperation and communication. The field of each is necessarily limited, and its activities confined to its own neighborhood. We need a broader sympathy and easier communication between widely separated men in every part of the country. Our journal aims to supply the want of such a medium, and asks the aid of all concerned in making its efforts successful. It will have little space for technicalities which interest only the specialist of each class, and will occupy itself mostly with those broader aspects of thought and culture which are of interest not only to scientific investigators, but to educated men of every profession. A specialist of one department may know little more of the work of a specialist in another department than does the general reader. Hence, by appealing to the interests of the latter, we do not neglect those of the scientific profession. At the same time, it is intended that the journal shall be much more than a medium for the popularization of science. Underlying the process of specialization which is so prominent a feature of all the knowledge of our time there is now to be seen a tendency toward unification, a development of principles which connect a constantly increasing number of special branches. The meeting of all students of nature in a single field thus becomes more and more feasible, and in promoting intercourse among all such students SCIENCE hopes to find a field for its energies, in which it may invite the support of all who sympathize with its aim. S. NEWCOMB.

WASHINGTON.

*SCRIPTORIBUS ET LECTORIBUS, SALUTEM.*

EVERYBODY interested in SCIENCE knows what it ought to be, bright, varied, accurate, fresh, comprehensive, adapted to many men of many minds; a newspaper, in fact, planned for those who wish to follow a readable record of what is in progress throughout the world, in many departments of knowledge. It is not the place for 'memoirs,' but for 'pointers;' not for that which is so technical that none but a specialist can read it; not for controversies, nor for the advancement of personal interests, nor for the riding of hobbies. It should not be maintained for the dominant advantage of any profession, institution or place. Wordiness is inappropriate; so, on the other hand, are figures and symbols, unless they are indispensable. Reviews, summaries, preliminary announcements, descriptions, extracts, correspondence, reports of meetings, biographies, should all find a place; but they must be put in the right sort of phrases and paragraphs. 'There's the rub.' Who is to collect, prepare, revise and set forth these accounts of what is going on in the wide domains of investigation? Money helps to secure such articles, but the work must be done 'for love and not for money.' Altruism is called for, the willingness, if not the desire, on the part of scientific workers, even in the very highest classes, to contribute prompt, brief, readable, trustworthy reports of what is going on, with fitting comments.

Scientific men have rarely the editorial instincts or aptitudes, like those of the editors of *Nature*, the *Popular Science Monthly*, the *Journal of Science*. Caution, close attention to details, precise expressions, are indeed theirs, but readiness to collect and impart news, and ability to make use of the phraseology of common life, are often wanting. There are noteworthy exceptions among men of the first rank. Dr. Asa Gray, the botanist, could say what he had

to say in a clear and interesting manner, and Clerk Maxwell, the mathematical physicist, could write paragraphs and verses racy enough for *Punch*. No better writers of instructive and agreeable English can be wished for than Darwin, Tyndall, Huxley and Spencer. SCIENCE hopes to be so fortunate as to discover and awaken the desired talent among the American students of nature. Its experience is worth something. Its managers know the rocks and shoals that must be avoided. They will welcome aid, suggestions, contributions, news, from every quarter. They ask co-operation. They believe that the art of writing can be acquired. One of the fundamental canons of success is to write so clearly that the rapid reader can perceive what is meant.

Such will be the aims of the new management of SCIENCE.

Finally,—

“If to do were as easy as to know what were good to do, chapels had been churches and poor men’s cottages princes’ palaces. It is a good divine that follows his own instructions: I can easier teach twenty what were good to be done, than to be one of the twenty to follow mine own teaching.”

D. C. GILMAN.

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#### THE CHARACTER AND AIMS OF SCIENTIFIC INVESTIGATION.\*

THE influence of this Association is in the highest and best sense of the word *educational*. Its discussions are aimed to present the correct methods of scientific investigation and to be guided by the true spirit of scientific inquiry. Permit me to explain this statement a little, for in it lies more than anywhere else the right to existence

of our organization and the best effects it can exert upon its own members or upon a community where it convenes.

The goal which we endeavor to attain is *scientific truth*, the one test of which is that it will bear untrammelled and unlimited investigation. Such truth must be not only verified, but always verifiable. It must welcome every test; it must recoil from no criticism, higher or lower, from no analysis and no skepticism. It challenges them all. It asks for no aid from faith; it appeals to no authority; it relies on the dictum of no master.

The evidence, and the only evidence, to which it appeals or which it admits, is that which is in the power of every one to judge—that which is furnished directly by the senses. It deals with the actual world about us, its objective realities and present activities, and does not relegate the inquirer to dusty precedents or the mouldy maxims of commentators. The only conditions which it enjoins are that the imperfections of the senses shall be corrected as far as possible, and that their observations shall be interpreted by the laws of logical induction.

Its aims are distinctly beneficent. Its spirit is that of charity and human kindness. From its peaceful victories it returns laden with richer spoils than ever did warrior of old. Through its discoveries the hungry are fed and the naked are clothed by an improved agriculture and an increased food supply; the dark hours are deprived of their gloom through methods of ampler illumination; man is brought into friendly contact with man through means of rapid transportation; sickness is diminished and pain relieved by the conquests of chemistry and biology; the winter wind is shorn of its sharpness by the geologist’s discovery of a mineral fuel; and so on, in a thousand ways, the comfort of our daily lives and the pleasurable employment of

\* From the introductory address of Dr. Daniel G. Brinton, President of the American Association for the Advancement of Science, at the annual meeting in Brooklyn, August, 1894.