

be by a revolt of the wealthy classes against its domination. It cannot be by a reform club of wealthy gentlemen discussing theories of civics. It must be by the organization of Good Government Clubs in every ward and district of the city, by persuading the men and women of the East Side that they are entitled to cleaner streets, purer police, and a juster enforcement of the laws. It must be, in a word, not by overthrowing the democracy, which thinks itself fairly well served by Tammany, but by educating the democracy to perceive that it is not well served by Tammany, and so by enlisting all lovers of honest and just government in a common cause against one that is despotic and corrupt.



The Good in All

There is no greater test of genuine intelligence and breadth of view than the ability to discover the element of truth in our opponent's position, or to find in the attitude of the man who proposes to deal with some question in an entirely different way from our own a ray of intelligence. One is constantly struck, on coming into association with men and women who approach great and pressing problems from different points of view, with their antagonisms. It is sometimes a great shock to find how earnest reformers hate each other, and to hear what bitter things they are capable of saying. The man or woman who takes one view of the industrial situation, too often cannot tolerate the man or woman who takes another view. The men and women who are divided on questions of educational method are sometimes as far apart as if they were differing on fundamental questions of morals. Those who emphasize one feature of the kindergarten are very apt to undervalue those who emphasize another feature. In every department there is constant temptation to overlook or underestimate the fidelity and the service of those who are trying to do the same work which we are trying to do, but who are doing it from a different point of view or by a different method. A really comprehensive view involves always a recognition of the fact that a problem is rarely settled by any single method, any more than a great fortress is carried by an assault from one quarter. The industrial problem will never be settled by the University Settlement method alone, or by the Church alone, or by any other one instrumentality now employed. The work is accomplished by the united efforts of all the workers, who, at the end, find themselves together because, approaching from different sides, they have from the start aimed at the same thing, although their methods of getting at it were so various. A little more charity, a little more wisdom, and a little more patience would destroy a host of antagonisms and relieve the world of the presence of a vast amount of unnecessary criticism.



Editorial Notes

—A recent volume of English sermons bears the title "Low Spirits and Other Sermons." It is to be feared that low spirits are oftener the result of sermons than their inspiring cause.

—The talk for and against opium in the English papers appears to have disturbed Australian lawmakers not a whit. In Victoria the culture of the poppy is forbidden, and the drug may only be imported, charged with an overwhelming tariff duty, for medicinal use. As a curse opium may be less terrible than strong drink, but it is still a curse.

—An action to recover \$138 came up before Judge Pryor, in one of the New York courts last week, which was saddled with a bill of costs

for \$434. Last year a dispute as to whether \$6 a week was sufficient alimony in a divorce suit entailed a bill of \$1,000 for referee and stenographer. It is time we had more judges, salaried referees, or less trivial litigation.

—The Kansas City "Star" thinks that civilization, by making everything conform to a type, has produced a general condition of commonplaceness which is very irksome, and it makes the charitable suggestion that fads are simply devices for making a break from the commonplace. This may be true, but is it not better to overcome the commonplace by educating ourselves out of it?

—Mr. Cecil Rhodes, whose portrait appears on the front page of The Outlook this week, is a very energetic person. After having, so to speak, absorbed all southern Africa under his own rule, it now appears that he has his finger in Madagascar pie, and that the French may possibly hear from him. At any rate, the Hova Government has sent an English settler to confer with him.

—It is not often that a young ruler has to learn his manners from a powerful nation, but the English have taken the youthful Khedive of Egypt in hand and are teaching him in a very effective way that he must mind his own business and avoid comments on English regiments. The position of a ruler like Abbas II., who nominally governs Egypt, but is really governed by an English diplomatist of great energy and immense sagacity, is not without its drawbacks.

—The personal history of Shakespeare is involved in such a mist that one reads with great regret the announcement that Charlecote, for so many centuries in the hands of the Lucy family, is to be offered for sale, and that one link of reality between the great dramatist and the country in which he was born is about to be broken. If Walter Savage Landor were living, he would be tempted to interpret the passing of the estate out of the hands of the Lucys as a judgment on the family.

—Relative to the proportion of foreign-born citizens in our country, it is remarkable that there is no large representation of them in Congress. Omitting the three vacant seats, the Senate has at the present time eighty-five members, and of these eighty-one were born here. The four others are not so foreign as they might be, as they were born, two in Canada and two in England. Among the Representatives there are twenty-four adopted sons. These were born, eight in Ireland, six in Canada, four in Germany, two in Norway, and one each in England, Scotland, Austria, and Hungary.

—The New York "Herald" is one of the best papers in the world, mechanically speaking. It has a very large editorial force; last week it printed a big pageful of portraits of editors and reporters—"very intelligent-looking men, too," we heard some one say. Yet the "Herald" allows us to form our idea of what it considers humorous by printing such head-lines as:

"Forged at fifteen—that her shame;
Who forged George McClellan's name?
Louise Collins, unabashed,
Signed and got the paper cashed.
Commendation John Shaw sold
For ten dollars, script [sic] or gold.
Mme. Chambet did she rob,
And Herman Henke got a job."

—The action of the Trustees of Columbia College in providing for a Professorship of Sociology, with courses bearing directly upon social questions, with investigations into existing conditions in this city and elsewhere, and with the hope of utilizing for the purposes of study the methods and the work of charity and reform organizations, is a step in the direction of bringing students into contact with the life of their time in a wise and fruitful fashion. Such a department, carried on with the sagacity which marks the conduct of affairs at Columbia, ought to be extremely valuable, not only to its students, but to the country at large; because through its operation may be anticipated the collection of trustworthy data and a scientific study of questions which are perhaps more important than any others now pressing for answer.

—The most daring engineering scheme yet is that which proposes the construction of a dam, fifteen miles in length, from Cantire, Scotland, to a northeastern point on the Irish coast. As the ocean is so much deeper than the sea between Ireland on the one side and England and Scotland on the other, the tide comes around the north of the Green Isle from the South Atlantic and flows through these narrow straits again southwards long before it can get up there from the south direct. In addition, the drift from the Gulf Stream bathes the northern part of England more abundantly than the southern, and the coast of Scotland so diverts it as to make a continuous current at least six miles an hour down the North Channel. Hence the proposal to utilize all this waste power and convert it into the form of electricity for transmission. The proposed dam would be really an isthmus three hundred feet wide. In mid-channel the depth of water is nearly five hundred feet, but is much less than that most of the way. Engineers estimate the cost of the dam, with its gates and water-wheels, at \$10,000,000—a figure under rather than over the mark.

Asa Gray: Botanist

By Prof. Frederick Starr

Of the University of Chicago



HE "Letters of Asa Gray,"¹ edited by his widow, brings prominently before the public again a man of whom America is justly proud. No one has done more than he to make our science respected abroad; no one more than he has aroused and stimulated our present scientific workers, and; moreover, he had a most engaging personality.

Asa Gray came of real New England stock. Both parents were born in Massachusetts, but both were taken when quite young to New York State. His father was a man of thrift and industry, with a true Yankee's idea of making ends more than meet, and with almost no education, in the ordinary meaning of the word. Asa was born at Sauquoit, Oneida County, November 18, 1810. His father was, by trade, a tanner, and one of the boy's first memories was of driving the old horse around the ring (to turn the bark-mill), and of furnishing the mill with bark. Asa was unquestionably bright; entering school at three years of age, he was a champion speller at six or seven. When about ten years of age, he entered the family of his maternal grandfather as a sort of errand-boy, attending the district school meantime. At twelve he was sent to the Clinton Grammar-School, and later to Fairfield Academy. It is probable that the meager educational facilities near his home were the excuse for letting a boy leave home so young.

At Fairfield Academy Asa Gray was in charge of the Principal, Charles Avery, later Professor in Hamilton College. For him, either as teacher or man, Gray seems to have had little respect, although he says of him: "He lingers in my memory." At Fairfield he completed his preparatory studies, with the idea of taking a college education. His father, however, "was buying land about this time," and recommended him to enter the medical school at once, without a college course. The Medical School at Fairfield was then quite an important institution, and to it, in 1826, the boy of sixteen turned. Already intensely fond of mineralogy and chemistry, the boy here, quite accidentally, became interested in botany. Chancing upon the article "Botany" in Brewster's "Edinburgh Encyclopædia," he read it with avidity; he then secured Eaton's "Manual of Botany," and read it during the winter. Impatiently he waited for the spring of 1828, that he might put his book-learning to practical test. Sallying forth, his first find was the spring-beauty—*Claytonia*—which, to his delight, he was able to identify. Through the season he collected assiduously. In his dear old teacher, Professor James Hadley, he found an earnest friend and wise adviser. At his suggestion the seventeen-year-old country boy opened a correspondence with Lewis C. Beck, of Albany—the first of many scientific correspondents. In the summer of 1830, at the invitation of Professor Hadley, Dr. Gray gave a course of lectures upon Botany at the Medical School. The course netted \$40, which money was spent in making a botanical trip to Niagara Falls, Buffalo, Aurora, etc. The next fall he began teaching in a private school in Utica. His vacations were spent in botanical field-trips, and it was upon one of these that Dr. Gray met the man who did so much to encourage him, and with whom his name is so constantly associated, Dr. John Torrey, of New York.

The next few years were years of struggle for a livelihood, of effort to make his beloved science yield him a support, making headquarters at New York. Part of the time he assisted Dr. Torrey, part of the time acted as curator of the New York Lyceum of Natural History. It was here and then that he began to issue his admirable sets of the "Grasses and Sedges of North America;" it was here, in 1836, that his "Elements of Botany" appeared.

"I think they gave one hundred and fifty dollars, which was a great sum for me." It was here, in the same year, that he was invited to go as botanist on a great Government exploring expedition. Part of this time in New York was spent as a member of Dr. Torrey's household. This meant everything to the young man. In this home he was constantly stimulated by the great botanist in scientific work, and influenced in a true and Christian life. It was also during this sojourn in New York that the warm friendship with the Hookers began. Dr. Gray, apparently, had sent a copy of the first part of his "Grasses and Sedges" to Sir William J. Hooker. In return he received a kind letter of approbation and a parcel of books.

We have spoken of the exploring expedition. Vexatious delays, changes of details, and misunderstandings appear to have disgusted Dr. Gray, and when the Wilkes exploring expedition really started he was not with it. At about that time, appointed to the Professorship of Natural History in the University of Michigan, an institution yet "on paper," Dr. Gray sailed for Europe. He was to purchase books and apparatus for the university. The journey meant much to him. Sir William J. Hooker and his son, Joseph D. Hooker, were most cordial. In a letter Gray says: "I am every day under deeper obligations to Sir William Hooker, to whom I owe the gratification of forming so many acquaintances under such favorable circumstances." Among those he met was Charles Darwin. The importance of this meeting was not at first



evident—the Beagle naturalist was not much of a lion compared with Professor Owen:

We there met Mr. Darwin, the naturalist, who accompanied Captain King in the Beagle. I was glad to form the acquaintance of such a profound scientific scholar as Professor Owen, the best comparative anatomist living; still young, and one of the most mild, gentle, childlike men I ever saw.

In this journey Dr. Gray visited England, France, Italy, Austria, Germany, and Switzerland. Everywhere he met the botanists and studied the herbaria. Here, and here only, could he examine the type specimens of our American forms described by European workers: so only could he fit himself for properly carrying out the great book on which he and Dr. Torrey were working—"The Flora of North America."

On his return to America the University of Michigan was not yet ready for his services, and he remained in New York, working with Torrey on the "Flora." In 1842 President Quincy invited Dr. Gray to take the Professorship of Botany at Harvard University, with the care of the Botanical Garden, at an annual salary of one thousand dollars. He accepted the position. Immediately after beginning work he wrote Mrs. Torrey. Advised by President Quincy to merely meet his class the first day and arrange their work, he says:

This I was most ready to do, as it gave me the opportunity of entering by degrees upon my task, feeling my way instead of making a plunge in regular desperation. The great thing is self-possession. The moment I get that I shall feel tolerably safe. So I met my class to-day, arranged matters, and made a few remarks without stammering a bit, so far as I recollect, or speaking much too fast.

In 1844 Dr. Gray gave a course of popular lectures on the Lowell foundation, because he needed the money they

¹ Houghton, Mifflin & Co., Boston. \$4.