SCIENCE.

FRIDAY, JUNE 24, 1887.

COMMENT AND CRITICISM.

AN INTERESTING CASE of the failure of heredity is shown in the Greenough family, of which Horatio Greenough, one of our earliest sculptors, whose letters have just been published by Ticknor & Co., is a well-known member. Although several of Mr. Greenough's brothers and sisters displayed an interest in and capacity for art, yet no explanation for this love and devotion can be found in either of the parents, nor in the ancestors so far as known. The father was 'a sensible, practical, honorable man' from Wellfleet, on the Cape. The grandfather had a collegiate education and good talents, and died at the age of thirty-nine. The mother lived to the age of eighty-nine, was passionately fond of nature, and had a facility for writing, and love for reading, but neither knowledge nor appreciation of art. Of the brothers and sisters of Horatio Greenough, of whom there were eleven, John, the oldest, was born in 1801. He showed when young a love of design, and supported himself for some years in London by painting. Alfred, the fourth son, was interested in art, but never studied it. He afterward entered into business. Richard Saltonstall, the youngest of the sons, born in 1819, distinguished himself at an early age by a portrait bust of Prescott the historian, a fine bronze group of a shepherd-boy and eagle, and the statue of Franklin in School Street, Boston. He has lived in Rome for many years, where his later works are well known. One of the daughters also possessed all the natural gifts requisite for an artist.

THE INCREASING NUMBER of series of monographs on special topics must have attracted the attention of all those who possess any acquaintance with current literature. We have an American science series, a set of science primers, several sets of literature primers, historical monographs, economic papers, and so on. The development in this direction is a perfectly natural one, and one which results from the increasing specialization in study. It is impossible any longer for even the well-informed man to follow methods and details: he must rest content with results, and even those concisely stated. This multiplication of small books on great subjects has been deprecated, we know, but, as it seems to us, on untenable grounds. When Huxley writes on science in general, Walker on political economy, Geikie on geology, Martin on biology, and Young on the sun, we may rest assured that the results will be beyond criticism.

Within a few days, two additions to these series, both of them extremely important, have been announced. The first comes from the faculty of political science of Columbia college, — a body which has already placed the community under obligations to it not only for its admirably organized and conducted course of study, but for its invaluable *Political science quarterly*. Each of the professors in this school has undertaken the preparation of a work on his own subject; and the series will cover the whole field of political science proper, as well as the allied subjects of public law and economics. Nine volumes are in course of preparation, and in each the historical and comparative method will be followed. The nine volumes mentioned are 'Comparative constitutional law and politics,' by Professor Burgess; 'History of political theories,' by Professor Alexander; 'Historical political economy,' by Prof. Richmond M. Smith; 'Comparative constitutional law of the American commonwealths,' by Mr. F. W. Whitridge; 'Historical and comparative science of finance,' by Dr. E. R. A. Seligman; 'Comparative administrative law,' by Mr. F. J. Goodnow; 'International law,' by Professor Dwight; 'Comparative jurisprudence,' by Prof. Munroe Smith; and 'Literature of political science,' by George H. Baker. The first of these volumes will be issued in the autumn.

The second announcement to which we refer will probably attract even more wide-spread attention than the first. It is to the effect, that, recognizing the lack of the accurate and scientific treatment, in an accessible form, of educational and pedagogic questions, the Industrial education association of this city will commence in the au-

tumn the publication of a series of educational monographs under the editorship of the president of the association, Dr. Butler. The papers will treat of various educational topics, historically and critically; and the most prominent educators, both in this country and in Europe, have promised contributions. It is expected that the first monograph will be from the pen of President Gilman of the Johns Hopkins university. The arguments in favor of industrial education and statements as to its proper organization and development will occupy a prominent place in the series, but not at all to the exclusion of other topics. We have heard both of these announcements with much pleasure, and particularly the latter, for it means that the teachers of the country will be able to obtain the opinions of responsible educators on current questions readily and at small cost. It is understood that this educational series will closely resemble in form and style the 'Historical studies' issued from the Johns Hopkins university, under Dr. H. B. Adams's editorship.

AN UNEXPECTEDLY rapid growth in the numbers of students registering in the Cornell university for the Sibley college courses, in the past two years, and since their establishment on their present basis, has already crowded that institution to its utmost capacity in many directions, the number in the college having already approached, within twenty-five, that considered the maximum which can be accommodated in the existing buildings. A new building now in progress, under contracts made by the Hon. Hiram Sibley, and which will be presented to the university, will, however, increase the total space available next year by fifty per cent, and will bring the total number, as a maximum, when all classes are filled on the new basis, up to three hundred.

DISTILLERY-MILK REPORT.[1] — *III.*

IN response to our circular, a number of letters of interest have been received, which we reproduce below: —

[Prof. H. P. ARMSBY, agricultural experiment-station, Madison, Wis.]

I do not think that there is any good evidence of any direct injurious effect of the swill upon the milk if used in a reasonably fresh state, and as a supplementary food; that is, as part of a properly compounded ration. Used too exclusively and in too large quantities, it is liable to produce disease in the cows, and thus to injure the milk. The great danger connected with the use of distillery swill, however, arises from the fact that it furnishes a most favorable medium for the growth of all sorts of micro-organisms. Unless the greatest care and cleanliness are observed about the stable, portions of the swill are almost certain to accumulate in out-of-the-way places, and serve as breeding-places of these organisms, whose spores contaminate the air of the stable, and almost necessarily infect the milk. While, therefore, I believe that milk of good quality, both as to composition and healthfulness, may be produced when distillery swill is fed, I question whether such will be its quality in the majority of cases: at least, there is always danger that it will not; and as regards that portion of the milk-supply of cities drawn from the small dairies in the outskirts and in the neighborhood of distilleries, which are often in the hands of ignorant and unscrupulous men, the danger is a very grave one. Two valuable papers in the *Milch Zeitung* for 1886 (Nos. 45 and 46) discuss the healthfulness of distillery swill quite fully: the first of them, by Professor Kirchner of Halle, takes substantially the ground that I have indicated above; the second, by a practical farmer, is more favorable to its use. These are all the references I have now at hand.

[E. L. STURTEVANT, M.D., New York agricultural experiment-station, Geneva, N.Y.]

In response to your circular request of May 12, 1887, I would say that we have had no experience at the New York agricultural experiment-station with the feeding of distillery waste or distillery swill. In 1884, however, we had a very carefully planned and executed experiment upon the feeding of brewers' grains in an acid and putrefactive condition. The conclusions derived, while against injudicious feeding, were in no sense detrimental as regards the taste, flavor, appearance, keeping-quality, or composition of the milk, nor as between the hay-fed or the brewers'-grains-fed milk, nor as between the milk from the experimental cows and that yielded by the remaining cows of the herd, all of which is fully reported in our 'Third annual report,' pp. 49–59.

A further general experience with experimental feeding leads me to the belief that oftentimes the sanitary condition of the cattle under objectionable feeding has more to do with unhealthfulness in the milk-product than the actual food used. In support of this latter view, I would say that in 1869 I visited the dairy herds in the vicinity of Glasgow, Scotland. I found the prevalent custom among the farmers was to haul distillery swill daily to their farms, and to feed it to the milch-

[1] Continued from p. 581.