

## THE ART OF LARGE GIVING.



TO-DAY individual fortunes in the United States far surpass those of any other age or country. The first attack on the resources of a continent has meant winning prizes such as the world never saw before, and centralizing tendencies, inevitable because economic, are bringing into fewer and fewer hands the control and the tribute of vast industries. So rapidly has all this come about that public sentiment has not yet reckoned with the problems introduced into the social and political order by the new massing of riches. The multimillionaire is usually as little enlightened as his neighbors concerning the duties bound up with the surplusage which has fallen to his lot; he is apt to inherit the ideas of a generation when property was distributed more evenly than now, when the disparity between earning and having was less glaring than to-day. In the political sphere, at the end of centuries of strife, power has been partnered with responsibility. At the present hour supremacy has passed to the chieftains of business; the real masters of the situation are the land, railroad, and manufacturing kings. Not the discontented poor alone, but the thoughtful rich, begin to feel that financial primacy creates new debts toward the public. But can these debts be legally defined and enforced? Skill and wisdom are lacking for the task, even if the question were closed as to the justice of the attempt. For many men of great possessions the voice of conscience is effective, as the contemplated grasp of the tax-gatherer could never be. Around them they see ignorance to be banished, talent missing its career, misery appealing for relief. They know that the forces of the time have brought them their huge fortunes only through the coöperation and the protection of the whole community: so, with justice in their hearts as well as generosity, they found the benefactions which are doing so much to foster the best impulses of American life; and in this response to public duty they find conferred upon riches a new power and fascination. It is the purpose of these pages to glance at a few typical large gifts in this country, show-

ing, as they do, distinct progress in the art by which those with a great deal have come most helpfully to the aid of those with too little. Incidentally, also, it may appear that the heaping of wealth in the hands of individuals carries with it advantage in the masterfulness and singleness of aim which can transmute a vast treasure to a splendid public service.

### LARGE GIFTS ARE MAINLY FOR EDUCATION.

OF large gifts in America the chief have been devoted to education, as in the Enoch Pratt, the Newberry, and other public libraries; in institutions for original research, as the Smithsonian, the Lick Observatory, and Clark University; in industrial universities, as Pratt and Drexel institutes; and in universities proper, as Johns Hopkins and Leland Stanford. A second group of great gifts has aimed at caring for the helpless and the sick; of these Girard College and Johns Hopkins Hospital are the foremost examples. A third class are concerned with public recreation and the refinement of popular taste, as the gifts by Henry Shaw to St. Louis of the Missouri Botanical Garden and Tower Grove Park; that by William W. Corcoran to Washington of a gallery of art; and that by George Peabody to Baltimore, where the institute bearing his name, in addition to departments educational in character, furnishes musical entertainments of a high order on terms merely nominal. Only in the first of these three classes are the benefactions formally set apart for education, yet in both the others education is in large measure the purpose. Girard College not only shelters, clothes, and feeds its wards, but it instructs them for practical work and duty. Johns Hopkins Hospital maintains one of the best training-schools for nurses in existence, and is united with the Medical School of Johns Hopkins University. The Corcoran Gallery of Art conducts free classes, so well attended that the accommodation for students has recently been doubled.

In America, then, the commanding object of large giving has been education, the cultivation of intelligence, skill, faculty, and, since even enjoyment needs apprenticeship, some worthy appeal to delight, to the tastes which enrich leisure and lighten toil. As jus-



tice includes all other virtues, so wise education is regarded as bearing in its train every other benefit. An evidence of this is the growing favor in which the teaching profession is held by the men and women able to enter its ranks. To cite a case, forty-four per cent. of the alumni of Johns Hopkins to June, 1894, have become teachers and college professors. The far-sighted Baltimorean thus planted a veritable seed-plot and nursery. Baltimore, too, answers the question whether a large gift for education really does much to promote the intellectual life of a community. The doubting are apt to imagine that a university must needs be the growth of generations; that the capacity to pursue the highest inquiry is rare, and does not always appear in response to opportunity. Since 1876, when Johns Hopkins University opened its doors, a notable change has taken place in the intellectual interests of Baltimore. Nearly half the students have been drawn from the city, and even the local circles of fashion are to-day alive to questions of scholarship and criticism. Clubs have been formed among society people for the study of art and letters, and Professor Jebb, lecturing at the Peabody Institute on permanent elements in Greek literature, has attracted audiences very much larger than he addresses in Cambridge. Toward this happy result the Peabody Institute preceding the establishment of the university, and the Pratt Library following it, have undoubtedly contributed.

#### PUBLIC LIBRARIES.

As a means of popular education a public library has a foremost place, especially when it is free. In June, 1894, the public library of St. Louis abolished its fees, small as they were. A fourfold increase of circulation is the result. Books and periodicals are not simply increasing in number every year, but in every province of science and art they have broken fresh ground; in the interpretation of nature they register a transformation of thought little short of revolutionary. While in the schools the training of the eye and hand is supplementing instruction from the printed page, never before were the student and the experimenter more under bonds to the last published word in science, art, and research, to the latest records of the studies and experiments of others. And, beyond its own immediate province, the spirit of science has made itself distinctly felt in literature. History and biography are now written with an exactitude wholly new. The student of taxation, of

trade-unions, in care and scruple is beginning to emulate his fellow-inquirer whose thought takes form in the suspension-bridge or the alternating dynamo. To adapt the contents of shelves and tables to the specific manufacturing, commercial, and artistic needs of a community, as at Worcester; to name works illuminating the living question of the hour, as at Providence; to court helpful relations with the schools, as at Milwaukee and Detroit; and, withal, judiciously to cater to the literary recreation of the people, are among the duties which to-day fall to the public librarian. His outlook is for yet greater usefulness: last year a beginning was made by the American Library Association in giving important works a competent note of description and appraisal—a pilotage, in these days of multiplied literary wares, invaluable to the reader and the student.

In public libraries Massachusetts leads the Union: less than two per cent. of her population are unserved by public, and for the most part free, libraries. This provision has been largely at the hands of individual founders, whose cash gifts exceed \$8,000,000, and who have also given more than one hundred memorial library buildings, and many valuable collections of books and manuscripts. None of these gifts in Massachusetts, however, compares with that of John Jacob Astor to New York, historic as it is in American benefaction. This library, opened to the public in 1854, to-day represents with its endowment \$2,100,000. It is to form the nucleus of the projected New York Library, merging itself with the Lenox and Tilden foundations to form an institution unique in the history of great gifts. The day has dawned when the economy of united control is as clear in benefaction as in manufacturing or trade. The Astor is exclusively a reference library. A library combining a reference department with the popular circulating plan was given by Enoch Pratt to Baltimore in 1886. To bring its volumes within reach of every home in Baltimore, six branches have been established in various centers of the city; the buildings for these branches, and that of the central library, with furnishings, cost \$325,000. The endowment, an additional sum of \$833,333, was handed to the city on condition that six per cent. thereon (\$50,000) should annually be paid for maintenance. In Chicago, Mr. Walter L. Newberry, who died in 1886, bequeathed about \$2,500,000 for a reference library to serve the north side of the city. Its first librarian, the late William F. Poole, planned its buildings, bestowing



each great department of literature in a room of its own. For the south side of the city provision even more generous has been made by Mr. John Crerar, who, dying in 1889, constituted Chicago his residuary legatee for the purpose. His bequest will probably realize \$2,700,000. Sums much more in the aggregate than this large amount have been bestowed by Mr. Andrew Carnegie, who has founded and extended free public libraries at Pittsburg and elsewhere in Pennsylvania, at Fairfield, Iowa, and in his native Scotland.

#### AID TO RESEARCH.

GIFTS which appeal less directly to popular regard than the public library may, for all that, have claims as weighty. There are many kinds of investigation which resemble forest trees, the benefits of which are only enjoyed years, or even generations, after the planting. Civilization for its advance must rely on applied science; but how, as Professor F. W. Clarke asks, can there be applied science unless first there be science to apply? This question has particular pertinence in the industrial sphere. Joseph Henry and John William Draper, in discovering the laws of electromagnetism and the chemical action of light, had no thought of the electric lamp or motor, or of the camera, which in so large a measure has superseded pencil, brush, and graver; yet all the while they were preparing the way for these triumphs of ingenuity. In the record of American science the first large gift for original research is that of \$500,000, received in 1838 by the United States as a bequest from James Smithson, an Englishman, who, by the way, never set foot in this country; in 1891, Thomas Hodgkins, another Englishman, gave the Smithsonian Institution \$200,000 more. This foundation has been singularly favored in the men who have presided over its fortunes. Its first secretary was Professor Joseph Henry, whose researches in electricity are classical. To him succeeded Professor Spencer F. Baird, a zoölogist famous in the science and art of fish-culture. The present secretary, Professor S. P. Langley, is an astronomer and physicist of eminence, whose studies of the sun have thrown new light on its constitution and internal disturbances, and whose "New Astronomy," the best popular treatise on the subject extant, first appeared as a series of chapters in *THE CENTURY*. As an aid to the investigation of the heat radiated by the stars, Professor Langley devised the bolometer, which detects a change of temperature of one one-hundred-thousandth

part of one degree centigrade. Joining this instrument to an automatic camera exposing plates sensitive to invisible rays, he has explored the solar spectrum with marvelous results. To the limited range of solar rays directly visible he indirectly maps to the eye regions more than thrice as extensive. Since 1887 he has been conducting experiments in mechanical flight. In consequence of this remarkable work, also described in *THE CENTURY*, actual flights of over half a mile have been made with his "aërodrome," built of steel, and driven and sustained on the air solely by the power of a steam-engine. This achievement for the first time brings within measurable distance the annexation of the air to human pathways.

In the ordinary university practice original research is prosecuted as an incident to teaching, with but slender aid from the general fund, so that often a man who might be profitably employed in the laboratory adding new tracts to knowledge is kept in the classroom traversing a time-worn round. In a few happier cases, as at Clark University in Worcester, the man of originality, who has gained the faculty of exploration by mastery of the known field, conducts research as his primary function, teaching only that he may communicate and apply his discoveries. Perhaps because observatories are monumental, and their work appeals to the imagination as that of the laboratory cannot, astronomy has attracted the largest gifts for original research. Yet equally must we look to the investigations of the physicist, the chemist, the student of body and mind in health and disease, if science is to continue its conquests and carry its flag into territory to-day at the verge of the horizon.

In bringing the result of research to the service of the public on the lines of an industrial university, Pratt Institute in Brooklyn is doing notable work. With its endowment of \$3,500,000, it represents a total gift of about \$4,000,000. Charles Pratt, its founder, in his experience as a young man in business, saw that current education was unpractical, and, as fortune came to him, resolved to do what he could for reform. He devoted years to observation, conference, and thought, and the result is expressed in Pratt Institute. As *THE CENTURY* for October, 1893, described the institute in detail, it may suffice to say that its work groups itself into four departments: educational, pure and simple, patterned on high-school methods; normal, preparing the student to become a teacher; technical, imparting skill in the fine, indus-



trial, and domestic arts; and supplementary courses in special subjects, domestic, social, and philanthropic.

#### UNIVERSITIES.

ON a plane of yet higher educational activity than that of Pratt Institute—the plane of the university proper—stands the foundation of Johns Hopkins in Baltimore, to which he gave \$3,500,000. This university, inaugurated in 1876, has won distinction in the emphasis it has placed on advanced work. At the outset it established twenty fellowships for graduates who should pursue original study and research. The impulse thus given is significantly registered in its enrolment to 1896. Out of a total of 2981 students, graduate studies have been prosecuted by 2086. This result is chiefly to be credited to the academic freedom which inspires the university; to the hearty coöperation between its professors and students. The ideas embodied in its administration have, with some modification, been adopted by the University of Chicago, which, opened but five years ago, has already received about \$12,000,000 as gifts. Yet a sum comparatively small may be so used as to do noble work for the higher education. Of this Cornell University affords an example in its union of individual munificence with national aid. On July 2, 1862, despite the turmoil and anxiety of civil war, Congress passed an act, introduced by Senator Morrill, evincing the nation's sustained interest in education. This act granted public lands to the several States which should "provide at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts."

The share of this national bounty which came to New York was scrip for 990,000 acres. On April 27, 1865, its legislature incorporated Cornell University, toward which Ezra Cornell had promised \$500,000, appropriating to it the proceeds receivable from sale of the land scrip. Through the shrewdness of Mr. Cornell, lands were chosen among the best pine regions of the Northwest, and were retained until they became of several times their original value, adding some five millions to the university's capital. Not content with arduous services through years of grievous commercial depression, Mr. Cornell added to his first donation the sum of \$170,000. His example has been so generously followed that to-day the cash gifts to Cornell aggregate \$2,738,000, the roll beginning with

\$1,171,000 from the Hon. Henry W. Sage, who has succeeded Mr. Cornell in administering the grants of the university. The sole gift of the State of New York, from its own treasury, has been \$50,000 for an agricultural building; but the State supports a State Veterinary College, located on the campus, allied with the university. Cornell educates annually 512 students from the State of New York free of charge for tuition.

When Columbia University, New York, recently announced its intention to remove to a new site, and asked its friends for \$4,000,000 to provide it with shelter, there was a general shrug of incredulity. The popular impression was that Columbia's riches were indefinitely great, and equal to all demands; the truth is that its income is wholly required for maintenance, and not a dollar of it can be used for building. Of this convincing proof appears in the gift of \$350,000, for the Natural Science Building, by Mr. W. C. Schermerhorn, chairman of the board of trustees; and in the gift of \$1,000,000, for the Library Building, by President Seth Low—a gift believed to form a material part of his fortune. One of the first buildings to be completed on Columbia's new grounds will be Havemeyer Hall, erected in memory of Mr. Frederick C. Havemeyer by members of his family, at a cost of \$400,000. Before the new wants of the university were declared, its medical departments, certain of which are unsurpassed in the world, had received \$1,970,000 from members of the Vanderbilt family. These departments are better known as the College of Physicians and Surgeons. The university during Mr. Low's presidency has so much extended and strengthened its work that its present appeal for aid is certain of response. In its services in behalf of popular culture, Columbia has placed New York deeply in its debt, and added a new argument for universities in great cities. Affiliated with Columbia is the Teachers' College. Its original site, which was presented by Mr. George W. Vanderbilt, has since been doubled by other gifts. The Manual Arts Building, completed in 1894, was constructed and equipped at a cost of over \$250,000 by Mrs. Josiah Macy, Jr., as a memorial to her husband, and the western wing of the main building, the name of the donor of which is withheld, is now being built at a cost of \$250,000.

#### AID FOR THE SICK AND DESTITUTE.

WHEN from the needs of education we turn to those of the sick and destitute, we find



the stream of benefaction equally broad and deep. The superb buildings and grounds of Girard College, and its vast endowment, estimated at \$15,000,000, make it in every way the most remarkable orphanage in America. Since 1848, when it first opened its gates, to the end of 1895, it had sheltered 5519 boys; in 1895 its family numbered no fewer than 1524, nurtured, too, with no stinting hand, for the average expense per boy was \$330. Since Mr. Girard's time public sentiment with regard to the massing of children in vast institutions has undergone a decided change. It is urged by thoughtful critics that to withdraw children from the influences of home, and regiment them under the command of teachers and officials, is to deprive them of the best discipline of life, of that familiarity with every-day matters of work and business which an ordinary child picks up as he goes along. Still, accidents of fortune continue to cast orphans adrift, the choice for whom is not between an asylum and a home, but between an asylum and the street. The authorities of Girard, aware of the shortcomings of orphanage routine, have sought to better it in a variety of ways, and with a fair degree of success. But the aim of the foundation—to do all that can be done for children bereft of parents—will be realized only when its vast income is parceled out among hundreds of households, each caring for an orphan group, and making it possible for discipline to be attempered with affection.

As Girard is easily first among the orphanages of America, Johns Hopkins Hospital is foremost among its hospitals. Its founder bestowed for it \$3,300,000. So much thought and care were devoted to its design by Dr. John S. Billings of the United States army, that it is acknowledged to be by far the most complete and admirably planned hospital in the world. Its means of warming, of providing pure air, of making easy the removal of dust and refuse, are virtually perfect. They lead the visitor to ask, Why should such appliances be reserved for the sick? Is it less desirable to maintain health than to restore it? And when shall training redeem domestic service from incompetency, as it has the calling of the nurse?

In this hospital the medical school of Johns Hopkins University receives clinical instruction, women being admitted to the classes equally with men. This is in accordance with the terms of an endowment of \$500,000, gath-

ered by a women's committee, Miss Mary Elizabeth Garrett contributing \$307,000.

As this article is about to go to press it is announced that Mr. J. Pierpont Morgan has given \$1,000,000 to the Lying-in Hospital of the city of New York.

#### ADMINISTRATION.

IN the control of benefactions a wide variety appears, each example an endeavor to meet the circumstances of a particular case. As a rule, trustees are designated by the donor, and are a self-perpetuating body. This was the course chosen by Johns Hopkins and Enoch Pratt of Baltimore. Pratt Institute, Brooklyn, is directed by three sons of its founder; it is provided that his three other sons may be added to the board. The trust deed of Peter Cooper regarding Cooper Union, New York, provides that his eldest male descendant shall be a trustee. The eldest lineal descendant of Ezra Cornell is entitled to a like honor—a seat at the board of Cornell University; its board of trustees consists of thirty-nine members, of whom nine hold office *ex officio*,<sup>1</sup> and the remaining thirty are elective trustees, two thirds of them being elected by the board and one third by the alumni, the term of office in all cases being five years. Of the fifteen trustees who rule Girard College, twelve are appointed for life by the Supreme Court of Pennsylvania and the Court of Common Pleas of Philadelphia; the other three are *ex officio* the mayor and the presidents of the select and common councils of Philadelphia. That the public should be represented on the board which controls a large benefaction is held by Mr. Andrew Carnegie to be a principle of cardinal importance. In the library founded by him at Allegheny, Pennsylvania, at a cost of \$300,000, the majority of the committee of management are appointed by the president of the common council; this gives him virtual control of the library's policy and power to choose the librarian. That this plan needs revision is clear, and the example of Allegheny has a lesson that applies to much else than public-library management. The superintendent of a great benefaction is all the better for lacking skill in the arts by which political favor is won and kept. When once a board of trustees is satisfied that their chief officer is worthy his place, why harass him by exposure to removal unless he can

<sup>1</sup> The eldest son of the founder, the President of the University, the Governor of New York, the Lieutenant-Governor, the Speaker of the Assembly, the Superinten-

dent of Public Instruction, the President of the State Agricultural Society, the Commissioner of Agriculture, and the Librarian of the Cornell Library.



ingratiate himself at the city hall? Why not let him engage his subordinates, making him answerable for their good behavior and efficiency?

To Pittsburg Mr. Carnegie has recently given \$1,100,000 for a library with branches, a music-hall, an art gallery, and a museum; he has provided in addition \$1,000,000 as endowment, the income to be expended mainly in the purchase of pictures by American artists. Nine of the library trustees are of his appointment, with self-perpetuating powers; the other nine are the mayor of Pittsburg, the president of the Central Board of Education, the presidents of the select and common councils, with five members chosen by and from these councils. Allegheny has not agreed to appropriate for the maintenance of its Carnegie Library any specific sum; Pittsburg binds itself to pay not less than \$40,000 a year toward the expenses of its Carnegie Library. This definiteness has obvious importance.

Easy as it usually is to find fault with a trust administration in part or wholly political, the difficulty remains that a self-perpetuating body may become sluggish and irresponsible to reasonable public demands. In Worcester, Massachusetts, the admirable public library, which originated in a gift by Dr. John Green, is managed by trustees who at the end of a term of service (six years) are not eligible for immediate reëlection: this evidently with intent that there shall be no sleepy settling down into arm-chairs by men who like the honor of office without its toil. And, in truth, the duties of a board administering a large gift are far from being as easy as they may at first sight appear, especially when the founder of the trust is president. To give wisely in a small way is a severe test of good sense; to give wisely on a large scale is difficult indeed. When a difference of opinion arises, a founder is apt to be chagrined if he cannot have his way. He may have had the trouble of making the money which is being spent, and naturally he wishes to have the decisive word in spending it. It is hard for rich and forceful men to learn that they must rein their instinct for command when they enter an unfamiliar field. The tactful adjustment of relations between men who have and do not know, and men who know and do not have, is familiar enough in the sphere of business. The same adjustment arrives, sometimes after sharp conflicts, in the administration of large gifts. Confronted by the difficulty of judiciously managing a great educational or other benefaction, more

than one founder has placed his gift virtually in the hands of an officer of tested ability, reserving to the board only nominal oversight.

#### WHEN AND WHAT TO GIVE.

At this point in our rapid survey certain principles of the art of large giving begin to make themselves tolerably clear. First, as to *when* it is best to give. During life, by all means. The diversion of the Stewart and Tilden bequests is too fresh in the public mind to bear restatement. They are two examples among a score which might be cited to prove the folly of trying to bestow a large gift by will. And, after all, can that truly be called a gift which falls from the clutch of death? To fortunate men opportunities for amassing great wealth come earlier in a lifetime than formerly, so that it is now easier than ever for gifts to be granted during life. When, however, it would entail serious loss were a large business brought to a close or shorn of its active capital, the rich man at its head can give what he can during life, and in his will provide for strengthening such lines of endeavor as have proved most worthy. This was what, in some degree, George Peabody did.

Of large gifts, those have been by far the most fruitful which have proceeded upon the fullest information, as in the case of the University of Chicago, where President Harper began his work by an examination of the field of the higher education in both America and Europe. Experience has abundantly established, also, that unless a gift is very large, it is preferable that it add to the usefulness of an existing institution rather than that it found a new one. To roof an uncovered house is better than to dig a new cellar. A fund to be known by the donor's name is, as a rule, of more benefit than a building likely to demand for the work done in it a new outlay from the general chest. In not a few colleges, while special funds for the observatory or library or chapel are ample, the general treasury from which that forgotten man, the ordinary professor, is paid is often sadly scant. These institutions always miss the symmetry and balance which come from placing a fair margin of income at the free disposal of the governing body.

A disputed point in large giving is whether it is better to found a small local college or to strengthen a great university not local. The small college will bring the higher education to thousands who otherwise could go no further than the public school. The uni-



versity, if its technical and professional departments are to be suitably manned, will need all the aid its most liberal friends can render. During the year 1894-5, the income of Harvard was \$1,084,000, yet the university made ends meet only through gifts for immediate use. In the development of Harvard every college, small and great, in America has aided and shared. The question, then, is less, Which, the local college or the great university? than, Why not both? There is good reason to expect that neither need will be ignored as fortunes are multiplied among the many men whose careers have been created by what the best education has done for mother wit. Let us hope that the years of the near future will also see accomplished the end which the foremost teachers of America have at heart—the work of the universities made continuous with that of the colleges, and the creation of centers of instruction where inquiry, physical or philosophical, political or ethical, may be carried to its utmost bound. As these advances are gained, we are likely to see the public schools more and more strengthened by alliance with the universities, and gradually freed from their abounding irrationality. Harvard, Yale, Columbia, and other universities have recently created departments where the science and art of teaching are imparted in the light of the latest discoveries in informing and training the mind. In the West, where the State university crowns the scheme of public education, this bringing to the people the benefit of the most helpful word of mental science is likely to be realized more fully than elsewhere in the United States. To-day exigencies, largely due to meagerness of support, are such that throughout the country, in the higher education as in the lower, there are not enough good teachers to go round. In selecting the faculties for Chicago and Leland Stanford universities, their presidents had to introduce an element of pecuniary competition, new in university halls, and not a little disconcerting to some venerable seats of learning inadequately endowed.

#### THE LARGE GIVER AS PIONEER.

WHEN a large giver has initiative in him, and can lead the way in rendering some new public service of plain value, through emulation or sheer stress of competition his work is imitated far and wide. What he directly does is vastly exceeded by what he prompts others to do. Peter Cooper, in establishing Cooper Union for New York, did much to

suggest to Charles Pratt the magnificent institute which has arisen in Brooklyn; and this foundation in its turn showed a generous friend of education in a third great city how best to give form to a long-considered purpose. The original intent of Mr. Anthony J. Drexel was that the Drexel Institute should be a college for women, not in but near Philadelphia. A visit to Pratt Institute resulted in his choosing an urban instead of a suburban site, and in founding with somewhat more than \$3,000,000 a college of art, science, and industry for both sexes. The president of Drexel Institute, Mr. James MacAlister, as superintendent of the public schools of Philadelphia gave them a new efficiency. His experience has suggested departments in especial for the training of teachers and for the coördination of studies. In Chicago Mr. Philip D. Armour has recently given upward of \$2,000,000 for aims which first found expression in the gift of Peter Cooper to New York. Like-minded with Mr. Cooper was the late Colonel R. T. Auchmuty, who founded the New York Trade Schools for the building and allied handicrafts. With maintenance these schools cost their founder and Mrs. Auchmuty about \$425,000. In 1892 Mr. J. Pierpont Morgan gave \$500,000 as endowment. Colonel Auchmuty proved to be a veritable pioneer: ten cities of America have established classes on his plan; those of Philadelphia enjoyed his generous aid. In 1893, during the Columbian Exposition, Mr. Marshall Field of Chicago gave \$1,000,000 to found a museum in Jackson Park. Givers of large means and small have followed his example, and, enriched by many valuable exhibits from the Exposition, the museum already stands its worthy memorial. Mr. John D. Rockefeller not only gives largely, but insures that others will follow his example. In October, 1895, he offered the University of Chicago \$2,000,000, in addition to his previous gifts to that institution, on condition that an equal sum should be given to it by 1900. His offer has already resulted in a gift of \$1,025,000 by Miss Helen Culver of Chicago.

Because the welfare of the bee in our complicated civilization is more and more bound up with the welfare of the hive, the sphere of action for public bodies grows ever wider and more vital. Of necessity these bodies are limited in their preparation for difficult duty, in their freedom of action, and often they are glad to take a new path of public service opened by a judicious giver. Mrs. Quincy A. Shaw of Boston for some years maintained



the kindergartens of that city at her own expense. In the fullness of time the civic authorities ingrafted them upon the system of public schools. New York has had a somewhat similar experience. In 1889 a few friends of the education which begins at the beginning formed an association to maintain free kindergartens. Last October kindergartens were conducted in fifteen public schools of the city, and the Board of Education announces its purpose to extend the system to every primary school as fast as its means will allow.

A large giver, instead of leading official action for the public good, may choose to coöperate with it. Thus George Peabody gave \$2,000,000 for education in the Southern States, and John F. Slater \$1,000,000. The revenues of these gifts, administered by the Hon. J. L. M. Curry of Washington, serve to supplement the support locally given to the schools and normal colleges of the South. The main purpose is to promote industrial education, and to lift the whole plane of instruction, by providing more and better teachers.

There can be helpful initiative and coöperation in matters of social reform, no less than in education. In 1885 a few men of capital built a model tenement in Cherry street, in one of the worst districts of New York, limiting to four per cent. the rate of dividend sought. This tenement has aroused Cherry street to a just discontent: to-day competitive landlords find it to their advantage to provide paved back yards, good plumbing, and a degree of comfort and order unknown in the neighborhood twelve years ago.

#### UNDISCOVERED WORLDS.

To educate power, to impart skill, have been the aims of many large gifts; to add to the world of the known, to the sphere in which power and skill find play, has rarely entered the mind of the large giver. Original research, wherever in America prosecuted, is commonly an incident, seldom the main purpose. And yet the area for discovery, useful and helpful, is virtually infinite. The properties of substances as familiar as iron, copper, sulphur, are yet known only in part. To determine them fully would be to broaden the foundation-stones on which rises the whole fabric of industry. American science still awaits its adequate physical and chemical laboratory for pure research. Were such a laboratory to be established,—let us say at the Smithsonian Institution,—with a

corps of trained investigators, it could with success attack problems too difficult for the individual inquirer, yet problems the solution of which is eagerly awaited by the metallurgist, the working chemist, the engineer, and the inventor. Through disposing the chemical elements in family groups, Newlands and Mendelejeff detected that the law of octaves obtains as truly in chemistry as in music. Observing gaps in the chemical gamut, Mendelejeff was able to predict the properties of the missing elements; three of these elements—gallium, scandium, and germanium—have been discovered, confirming in their characteristics the law which directed the quest for them. The verification of this «periodic law» chemists are convinced is no more than the first step toward mapping the molecular motions in which consist the properties, the characteristic modes of behavior, of a substance. An approach to success in this direction has already been achieved in the study of alloys; there seems to be no reason why, within the limits of possibility, the chemist of the twentieth century may not for a special purpose produce an alloy having any degree of elasticity, conductivity, tensile strength, or lightness which he shall desire. A little carbon added to iron gives us steel; a little nickel added to steel gives us in ferro-nickel yet greater tensile strength. When results such as these have been won in the darkness of empiricism, what may we not expect when research has lighted the lamp of law?

And this question of advanced physical exploration has a very practical side in its bearing on civilization. It is a common remark that there is wealth enough in the world were it only fairly apportioned. But let us remember that were the total yearly income of this country, one of the richest on earth, allotted equally among its inhabitants, each share would be less than \$200. Could this be called wealth? In truth, the world is poor, and while equity in distribution is desirable, not less desirable is it to increase the sum of divisible things.

#### BOTANY A PLASTIC ART.

IN the experimental farm and garden there is quite as much to be done as in the physical and chemical laboratory. Botany is a plastic art; what has been achieved with the rose, the chrysanthemum, and the so-called small fruits, is only an earnest of what can be done in perfecting and diversifying plants and their products. Professor G. L. Goodale, the successor to Professor Asa Gray at Har-



ward, declares that were all the cereals now used for food swept out of existence, the experimental farms of America could probably replace them within fifty years. He estimates the number of flowering plants at 110,000, utilized by civilized man barely to the extent of one per cent. As foods, as fibers for textiles, as sources of perfume and ornament, many neglected plants, he tells us, offer rich rewards to the explorer and man of experiment; while, too, our common fruits can be improved both in flavor and beauty. Professor Goodale warmly commends the work of acclimatization and experiment going forward at two splendid benefactions for botany—the Missouri Botanical Garden in St. Louis and the Arnold Arboretum in Boston. Their work, he holds, has only to be extended and linked with that of the experimental stations scattered throughout the Union immensely to enrich the resources of the country. Professor Goodale is a physician as well as a botanist, and he has a hopeful word to say concerning the remedial agents to be found or molded amid the disregarded wealth of forest and field.

#### THE PREVENTION OF DISEASE.

IN the sphere of medicine the rewards held out to the investigator are of even higher moment than those which tempt him in the physical laboratory or the garden. In 1892 the Laboratory of Hygiene, built through a gift of \$50,000 from Henry C. Lea, and equipped through the munificence of the late Henry C. Gibson, was opened at the University of Pennsylvania, Philadelphia. The gift came on condition that the laboratory be suitably endowed, and that hygiene should be a compulsory study in the medical department of the university. The laboratory has been constructed and its work organized under the direction of Dr. John S. Billings. Here the chemistry and bacteriology of air, water, and foods are studied, with methods of detecting hurtful impurities. Diverse systems of ventilation, heating, drainage, and sewage disposal are compared. Many diseases, among them typhoid, erysipelas, diphtheria, and consumption, due to minute forms of life, are studied, as well as the best modes of disinfection, and of protection by inoculation such as since Jenner's day has banished smallpox from among civilized men. Although the laboratory has scarcely more than begun its work, it has already made valuable additions to our knowledge of the nature and effects of sewer-gases, of expired air, of dan-

gerous dusts, of the means of destroying microscopic foes, such as the bacillus of typhoid fever.

#### THE EXPLORATION OF MIND.

A LAND of promise, indeed, is it which to-day stretches itself before the investigator of the nature of the human body in health and disease; equally rich is the territory just opening to the explorer in the realm of mind. Psychology is reaping the gain which comes to a science when it adds experiment to observation, when it can surprise nature in her secrets by artificially varying the conditions of a question. Refined and subtle introspection of mental processes has well-nigh come to its limits and finished its work. To its store of discovery is being added, day by day, a knowledge of the contents and powers of the mind unimaginable in times when their study was a department of speculative philosophy, when to invoke the aid of instrumental tests would have seemed grotesque. To-day, apparatus, some of it most simple, some of it exquisitely ingenious, serves to explore impressibility, attention, the power to associate ideas; while light is incidentally thrown on the subtle play of imagination and the bonds of habit. Experimental psychology has exponents at every leading American university; one of its centers is at Worcester, Massachusetts, where Jonas G. Clark's gift, estimated at \$1,500,000, has established Clark University. Here President G. Stanley Hall, aided by a corps of other investigators, is adding to the knowledge of mind with the special purpose of turning that knowledge to account in the economy of education. When a score of children are examined with regard to their quickness in recognizing tones and forms, in discriminating hue from hue, in detecting the features wherein similar flowers resemble one another, the aptitudes and deficiencies of each child are not only revealed, but may be definitely measured. The teacher is thus brought to see what areas of each mind will best repay cultivation, and what other areas, from natural sterility, require attention not less gainful. Yet more, well-contrived experiments are constantly determining just when the details of this education can best be timed, and how they can best proceed. Professor Scripture of Yale, formerly of Clark University, in a series of preliminary tests, has found reason to believe that the acquisition of a foreign language can be hastened threefold when pictures accompany the words. He looks to the psychological laboratory for definite guidance as to how



all the faculties—for color, music, what not—may be elicited, and brought to their best estate. The psychologist in the class-room is thus in the way of solving the difficulty which attends the lengthiness and variety of our courses of instruction in school and college; of giving invaluable aid in making up the round of elective studies in the university. He is, in short, addressing himself to the task of both enriching and lengthening life. A generously wide curriculum, when joined to matured experimental methods of discovering aptitude and bringing it out, can put the world for the first time within reach of its truest riches, in the ability of its young minds rightly appraised and fully developed.

#### TALENT-SAVING.

ONCE more emerges the need that the values in girls and boys of uncommon talent, or skill, be fully brought out in those possessed of little means or none. Despite the steadily rising requirements for matriculation, nearly every college and university in the land has constantly to turn away from its doors candidates worthy and poor. Among them, without doubt, are those who have it in them to add to knowledge, to prosecute original research. If discoverers be found and given a chance, every other discovery will follow from that. Many as are the scholarships and fellowships provided for those who seek the best education, they are all too few. Mr. Joseph Pulitzer of New York, at a yearly outlay of \$15,000, enables pupils from the public schools, selected for merit, to obtain collegiate instruction. At present they are seventy in number. Such aid proceeds upon the conviction that the strength of an army lies even more in its officers than in its rank and file. Original power, inventive talent, the faculty for leadership, are rare; but need we regret that common trades and businesses are largely recruited from high schools and colleges? Rather let us rejoice that every-day men and women are brought to the utmost fullness of life, into that active sympathy with the highest work and the best thought which only cultivation can bestow.

#### THE AX LAID AT THE ROOT.

EDUCATION, momentous as it is, does not fill the whole round of human need. Not only ignorance, but destitution, and destitution with disease, afflict mankind. Typical here of a revolution in the attitude of all philanthropy is the contrast between the views of

the physician of to-day and those of his predecessor of the last generation. In the profession of medicine thirty years ago the conviction reigned that disease was largely inevitable; to-day there is knowledge that disease is as largely preventable. And this knowledge extends to other ills than those which fill the hospitals: in the scientific examination of chronic poverty, of drunkenness, of insanity, of criminality, the most effective means of attack are coming into daylight. Charitable agencies are scrutinized with a cool, informed eye, which often detects them fostering the very distress they would succor. In Charles Booth's masterly study of the labor and life of the London poor, we have a model of what can be done toward giving definiteness and measure to perplexing social maladies. Charity can work its will only as espoused by wisdom to show it

What must be, and what may yet be better.

The note of the new philanthropy is not one so much of hope—that vague sentiment which is little else than desire in ignorance—as of expectation based on knowledge that certain grievous ills of society can be not abated simply, but uprooted. The wisest helper of men strives so to plan his aid that soon it may be needless.

#### RECREATION FOR THE PEOPLE.

LIFE has other sides than those which touch education and the war on disease and misery: life is also for joy. In promoting healthy and refining recreation, large giving has before it a field little more than entered. With the growing domination of machinery, the more and more minute subdivision of labor, there comes a greater need than ever for the cultivation of talent and taste for art and music. In Europe the masterpieces of Raphael, Murillo, and Velasquez are public property; it is beginning to be felt by the rich men of America that the hardly less inspiring canvases of Millet, Corot, and Inness are out of place in private mansions. But in power to confer delight, the music-room is much more democratic than the picture-gallery. The love of good music is well-nigh universal, and no service has ever been rendered the people of New York, Boston, and Chicago which has evoked more enthusiasm than the high-class operas, concerts, and oratorios furnished them on nominal terms during recent winter seasons. Cincinnati, through a gift of \$50,000 from Mr. W. S. Groesbeck, has for some years enjoyed free open-air concerts of a high order. The Boston Symphony, the leading orchestra



in America, is supported by its founder, Mr. Henry L. Higginson, who has thus greatly served the cause of education in music. Mrs. Jeannette M. Thurber of New York has founded a National Conservatory of Music, which offers the highest order of instruction, and placed it under the direction of Dr. Antonín Dvořák, the greatest living composer. The Conservatory imposes no fee on those quite without means, whose talent promises distinction. The new movement for education in music recognizes the fact that where one student can learn to execute music well, a hundred hearers can be taught to take a heightened pleasure in an opera or a symphony; hence the increase of popular exposition as distinct from instrumental instruction. Musical education, extending as it is throughout the length and breadth of the country, has friends among the very foremost teachers, and in spheres remote enough from music. Professor Henry C. Adams, who fills the chair of political economy at the University of Michigan, and who is an alumnus of Johns Hopkins, has said: «Nothing in my life at Baltimore did me more good than the fine music I heard at the Peabody Institute. If I were a rich man, the first gift I should make to the University of Michigan would provide it with the service of Seidl, Thomas, and Damosch. Our education to-day is lopsided: it is addressed to the intellect, and to very little else; emotion, sentiment, are almost ignored. What is the sense in taking so much pains to assure the power to command leisure; while the power to enjoy that leisure is almost neglected?» Since Professor Adams said this his university has established an excellent course of musical instruction.

#### MONUMENTALISM.

IN this rapid survey of the *when* and the *what* of large giving, its *how* remains to be glanced at. An allurements which has not always been resisted is that of monumentalism. A fund withdrawn from use to display can prefer only the plea of the incidental refinement of public taste. The buildings of Girard strike the visitor as much too costly and elaborate for the housing of needy orphans. In more than one temple of art reared by private munificence we have imposing architectural effects at the expense of security against fire. The frankly expressed intent of James Lick originally was to build himself a monument on some lofty peak of the Pacific coast. It was suggested to him that such a shaft could easily be demolished by a foreign

foe, and that the projected memorial might fitly take the form of an observatory on an inland eminence. Accordingly his name is perpetuated, and the cause of astronomy advanced, in the noble structure which crowns Mount Hamilton. To mark the opposite pole of sentiment, we have the case of a large giver on the Atlantic seaboard, Mr. Charles Pratt, who designed his buildings in such wise that in case his educational purpose failed he might readily convert the premises into a factory.

#### MAINTENANCE.

A BENEFACTION fitly housed and equipped for its work, the next desideratum is that provision be made for its maintenance. Many foundations in America lead a life of struggle, of crippled usefulness, from lack of adequate endowment. Cooper Union, New York, perhaps the most admirable benefaction in the metropolis, has an endowment of only \$1,500,000; with \$500,000 more its usefulness could be doubled. Its officers point with sorrow to a waiting list of more than a thousand young men anxious for admission to its classes. Lick Observatory, with its instruments built at a cost of \$610,000, has an endowment fund of only \$90,000. It is incorporated with the University of California. So scanty are the appropriations for its support, that while doing work which places it in the foremost rank of the world's observatories, it has the absurdly small number of seven observers, as against a working force of forty-eight at Paris, twenty-four at Greenwich, and fifty at Harvard. Only when suitably furnished with additional observerships will the Lick Observatory cease to be the most signal instance in America of a great gift merely launched, and missing much of its purpose through its work being miserably undermanned.

With an eye to the vicissitudes of even the best investments, and confident that if an institution is not to fall behind it must advance, the trustees of Pratt Institute have accumulated a large reserve fund. Apart from direct losses of property such as have befallen some great benefactions, it must be borne in mind that the earning power of capital tends to shrink by virtue of the very scientific conquest of nature which benefactions largely promote. The city of New York, in buying its northerly parks, borrowed the money at a rate which brings the investor less than two and a half per cent. per annum. When an endowment is insufficient, and particularly when an annual deficit must be referred to a founder, there is discouragement of the



best work; for how can the haunting dread be banished that he who holds the purse-strings may any day prove a Mr. Ready-to-halt?

Next to making it enough as an element in the success of a gift is the leaving its trustees untrammelled. Johns Hopkins gave his board freedom to form plans as they thought proper, and to alter them at will. His wisdom has been abundantly justified. Mr. Francis T. King, the chairman, and his co-trustees, received \$3,300,000 for a hospital; they erected and equipped the buildings out of the income, leaving the original fund, available for endowment, increased by \$113,000. In these days of mutation in the methods of education and philanthropy, as in all else, restrictions imposed by a donor, however wise for his own day, are apt eventually to work harm where he meant to do good. In times past language, the arts of expression, held the first place in culture; as a survival of this preference there is apt to be to-day comparatively meager provision for university students of scientific bent. Yet these, were trustees always free, would, from the rarity and value of their powers, receive at least equal encouragement with youth of literary inclinations.

#### ENLISTING COÖPERATION.

BECAUSE there are bounds even to the most liberal benefaction, it has always proved advantageous when its work has enlisted public sympathy. This has been chiefly the case, of course, when the administration has been able and just; and next, when no sectarian sieve has been set up between the public and the good intended to be done. Responsive to the spirit of the time, we see denominational colleges and hospitals managed with more and more relaxation of their original exclusiveness. The conviction steadily gains ground that no man or woman other than the best should direct them, and that for their benefits the only qualifications should be simple need and desert. When a benefactor is as remote and hallowed a figure as John Harvard, it becomes an honor to build on his foundation; but when days of stress befall a recent gift, help is more easily secured when the institution bears an impersonal name. Here it is necessary to distinguish between an institution as a whole and its several departments. These latter, each requiring comparatively moderate outlay, may, as in those which cluster at Yale and Princeton, fitly commemorate honored names. But with regard to the general purposes of an institution, subscribers

are human, and do not like to have their donations merged in a monument which glorifies somebody else. Johns Hopkins's original intent was to found the «University of Baltimore.» Had he done so, there is little doubt that funds needed to sustain the work of his university would be forthcoming more freely than they are. The Metropolitan Museum of Art in New York, from its public character, draws to itself many donations and bequests which would never go to a museum other than public. The giver of a great gift can go beyond entitling it with an impersonal name: in a recent case the last extreme of self-effacement has been reached by a man who has taken pains that no picture, bust, memorial, or other mention of himself shall be found within the walls he reared. Almost as striking is the example of Mr. John D. Rockefeller, the founder of the University of Chicago. His gifts aggregate \$7,426,000,—more than half its total benefactions,—yet he has not become even a trustee; he has not suggested a single appointment, or tried in any way to control or influence the work of organizing the university; and he has sought on its behalf large gifts from others. From unknown givers many colleges, asylums, hospitals, receive noteworthy aid. New York University is indebted for a round million to anonymous givers. A few years ago its medical school received \$300,000 from a friend who wished not only to be unknown, but to have the gift unannounced to the public. The example was catching. A donor whose name is withheld has recently built a residence-hall at an outlay approaching \$200,000. At the bidding of a third unnamed friend, the university is soon to enjoy a library structure to cost more than \$500,000.

#### TO BE RICH CAN MEAN MORE THAN EVER.

BRIEF as this glance at large giving has been, it may nevertheless suggest that superfluity to-day can do more for mankind than ever before: the paths for beneficence are broader, they are better understood. Large giving now can make the most and best of human nature in aiding education rightly timed, justly adapted to individual power and need. It can equip the explorer, and bring from the mine, the garden, the laboratory, a thousand new resources. Nor ought any narrow regard for the utilities cramp the quests it sets on foot. Were no observatory telescope to be directed to the heavens for the next fifty years, the mariner would sail the seas as securely as ever. Yet, if the astronomer with



spectroscope and camera can add proof to proof that the universe is in substance one, can give it a vastly extended diameter, unfold a fresh chapter in its history, make yet clearer its immanent order, has he not done something to dignify and wing the mind of man?

Physical science, unfinished as it is on every side, is opulent with promise to the large giver; even more abounding is promise in the field of social science—the field in which individual weal becomes more implicated with every passing year. Let us take, for example, the conditions which create the large giver himself. The winds of fortune which heap up his treasure as a Northern snowdrift do so, in part, by making bare necessity yet barer. In decided measure the want to which he ministers springs from the very maladjustments which to him have brought excess. What are the causes at work here? They may well engage the skilled inquirer, whose opportunity

for the work, perchance, grows out of a gift from superabundance. Have not many great fortunes been the rewards of preëminent business capacity, more gainful to the community than to itself, which fact, on proof, draws the sting of discontent? Have not other great fortunes risen through turning to account opportunities for immense profit, which profit would remain in the hands of the community could public spirit and private probity be enlisted to that end? How far has the enginery of taxation been made a means of strengthening the strong; and how can that tendency with equity be reversed, so that the disparity between what men need and what they get shall be less extreme? In advancing such inquiries as these, in promoting, as the response may indicate, the culture of the sense of social right and duty, the large giver strikes at the roots of both want and surplusage, and wins for himself the worthiest remembrance among men.

*George Iles.*

## «FLOWER BEFORE THE LEAF.»

### I.

FLOWER before the leaf, boy-loved Rhodora,  
Morning-pink along the valley of the birch and maple,  
Now the green begins to cling about the silver birches,  
Rush the maple buds and ruddy yonder hillside;  
Sudden as the babbling brook or robin's whistle,  
Spring-swift, thou art come in the old places,  
In the hollow swamp-land, bloom on brake!

Flower before the leaf!  
Ah, once here in the sweet season—  
Flash of blue wings, birds in chorus,  
Ere the violet, ere the wild-rose,  
While the linden lingered and the elm-tree—  
Years ago a boy's heart broke in blossom,  
Flower before the leaf,  
While he wandered down the valley loving you;  
And above him, and around him,  
Beam and gleam and distant color,  
Waiting, waiting, hung the Spirit  
To rush forth upon the world.

### II.

Somewhere in the years of the dawn did I dream that a youth all boy-like stands?—  
And the tender Rhodora's bloom, the first of the year, is red in his pure, sweet hands;  
And in the doorway bending, dark-haired, bright-cheeked, a girlish form appears,—  
A word, a smile, a blush, and out of the blue a black rook downward nears,—  
And all the spirits rush to his heart, and the fragrant world, save her, turns dim,  
The flowering of whose face was the glory of spring through the years of the dawn to him!

*G. E. Woodberry.*