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EDITED BY

F. B. SANBORN,

GENERAL SECRETARY OF THE ASSOCIATION,

CONCORD, MASSACHUSETTS.

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CONSTITUTION OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION.

I. This Society shall be called the AMERICAN SOCIAL SCIENCE Association.

II. Its objects shall be classified in five departments; the first, of Education; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III. It shall be administered by a President, as many honorary Vice-Presidents as may be chosen, a Treasurer, a Secretary, and a Council, charged with general supervision; five Department Committees, established by the Council, charged with the supervision of their respective Departments; and such Local Committees as may be established by the Council at different points to serve as branch associations. The Council shall consist of the President, Treasurer, and Secretary, the Chairman and Secretary of each Department, and ten Directors, with power to fill vacancies and to make their own By-Laws. The President, Vice-Presidents, Treasurer, Chairman, and Secretaries of Departments, and Directors, shall be chosen annually by members of the Association, and shall hold office till their successors are chosen. The President, or in his absence, a Director, shall be Chairman of the Council. The Chairman of the Local Committees shall be chosen at the pleasure of their respective committees. Whenever a Branch Association shall be organized and recognized as such by the Council, its President shall be ex-officio one of the Vice-Presidents of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And whenever a Local Department shall be organized and recognized as such by the Council, its Chairman shall become ex-officio a member of the parent Association. The Chairman and Secretary of each Department, with the consent of the President of the Association, may appoint such special Department Committees as they may think best. The General Secretary shall be elected for three years, unless he resigns or is removed by a two-thirds vote of the members present and voting in a regular meeting of the Council; and out of his compensation he may pay the salary of an Assistant Secretary, who may also be Secretary of one Department.

IV. Any person may become a member by paying five dollars, and may continue a member by paying annually such further sum as may be fixed at the Annual Meeting, not exceeding ten dollars. On payment of one hundred dollars, any person may become a life-member, exempt from assessments. Honorary and corresponding members may be elected, and exempted from the payment of assessments.

V. The Council shall have sole power to call and conduct General Meetings, and to publish the Transactions and other documents of the Association. The Department Committee shall have power to call and conduct Department Meetings.

VI. No amendment of this Constitution shall be made, except at an annual meeting, with public notice of the proposed amendments.

Publications can be obtained and information had by addressing F. B. Sanborn, Concord, Mass., or the Publishers for the Association, A. Williams & Co., Boston, and G. P. Putnam's Sons, New York.
The Papers included in this number of the Journal of Social Science taken together with those which appeared in the Journal No. XIV, make up all the Saratoga Papers of 1881 which have been received from the authors in condition for printing. As some misapprehension may exist in regard to the publication of Papers by the Association, it may here be said that all Papers engaged for the General Meeting of the American Social Science Association are so engaged with the understanding that they may be printed in the Journal of Social Science if the Council so decide; if, therefore, the writers choose to publish their papers elsewhere, (to which the Council offers no objection) it must be with the stipulation that these papers may also be published in the Journal, at the option of the Council as to time of publication.

The absence of some of the Saratoga Papers of 1881 from this Number reduces its size; but since the Journal No. XIV, contains 215 pages, this Number 167 pages, and the Proceedings of the Boston Conference of Charities 376 pages,—making an aggregate of nearly 760 pages published and distributed to members of the Association for the year 1881, the Council believe that their implied promise to the members in respect to publications has been fully kept. If any members have failed to receive these three publications through change of address, temporary absence, or for any cause, the Secretary will supply the omission upon due notice. Such changes in the list of members as have been found necessary since November, 1881, will appear on page viii. of this Number. It will be observed by reference to the list of Officers printed on the cover of this Number, that Dr. Eliza M. Mosher, the Superintendent of the Reformatory Prison for Women at Sherborn, Mass., has taken the place of Dr. E. F. Pope, as Secretary of the Health Department.
THE GENERAL MEETING OF 1882.

This will take place as usual at Saratoga, N. Y., early in September, 1882, opening in Putnam Hall, on Monday Evening, September 4, with an address by President Wayland, and closing on Friday, September 8. The sessions of the Education Department will occur on Tuesday, those of the Health Department on Wednesday, of the Jurisprudence Department on Thursday, and of the Departments of Finance and Social Economy on Friday. The headquarters of the Association will be at the United States Hotel, where members and guests of the Association will be received at reduced rates.

The Education Department will continue its investigations of *Infant Development*, and in addition to its other topics will present for discussion the subject of *Industrial Training among the Dependent Classes*; the Health Department will continue the consideration of Insanity, and the Social Economy Department will present a series of Reports and Papers on the *Factory as an Element in Civilization*, by Carroll D. Wright, Esq., of Boston, and other competent writers in other parts of the United States. The Papers of the General Session, and of each Department in detail, will be announced by circulars in April or May next.

The Ninth Annual Conference of Charities will meet at Madison, Wisconsin, in July, 1882, and will continue in session four days. The precise date and the order of business in this Conference will be announced during the coming Spring. Members of the Association who desire to attend this Conference will be registered as delegates and entitled to take part in its debates.
The following names are to be added to the list of members printed in No. XIV, and the addresses of other members should be changed according to the list A. which follows:

**LIFE MEMBERS, Massachusetts.**

F. B. SANBORN, Concord.
Mrs. LOUISA J. SANBORN, Concord.

**ANNUAL MEMBERS.**

W. H. DOUGHTY, Troy, New York.

**LIST A.**

BLAKE, STANTON, Boston, 7 Exchange Place.
COOLIDGE, T. JEFFERSON, 95 Milk Street.
HIGGINSON, WALDO, 131 Devonshire Street.
LYMAN, ARTHUR T., 13 Summer Street.
Nourse, B. F., 79 Milk Street.
ROPES, JOSEPH S., 8 Congress Street.
SULLIVAN, RICHARD, 79 State Street.
WING, DR. C. E., 149 Boylston Street.
TOUSEY, SINCLAIR, New York, 39 & 41 Chambers Street.
YOUNG, EDWARD, J. (a Life Member), should be addressed at New York, not Washington, D. C.

MILES, WASHBURN, Boston, is deceased.
I. INFANT DEVELOPMENT.

The most interesting topic considered by the Department of Education at the Saratoga meeting of 1881, was Infant Development, which will, therefore, be first presented in the Journal, after Dr. Harris's opening address.

THE EDUCATION OF THE FAMILY, AND THE EDUCATION OF THE SCHOOL.

AN ADDRESS BY W. T. HARRIS, CHAIRMAN OF THE DEPARTMENT OF EDUCATION.

The Department of Education, in the Social Science Association, has to consider education in general, and not to limit its view to education in the school alone. It is an error frequently made, to demand of the school all kinds of education,—education for trades and business, education in religion, education in politics and statesmanship, education in habits which the nurture of the family should supply.

Education, in the sense that social science uses the term, includes the whole life of man, in so far as the different institutions of human life react upon the individual and educate him. These institutions of civilization are the family, the social community, the State, the church. Each one of these gives a special kind of education to man which cannot be given by any of the others; all education seeks to make the mere individual the possessor of the fruits of the labors and experience of the human race. The church is the highest educational institution, because it reveals the highest principle to man,—that of the creator of the world. In revealing this principle, it reveals the origin and destiny of the world, of nature, and of the world of man. If our religion were Buddhism or Brahminism, for instance, instead of Christianity, we should believe in a God without any form whatever, not even the form of
consciousness or personality. A world could not be a revelation of such a formless God. The human mind could not be in the image of a formless God. If God is not personal, an infinite reason, an absolute form, then man cannot be immortal, but must be destroyed, and lost when he returns to the first principle. Under such an education as a religion of Pantheism teaches, there can be only despotism in the State, slavery in the social community, and patriarchal rule in the family. But with the Christian ideal of a divine-human God there is all hope for the individual man. Christian civilization progresses toward the preservation and education of each individual. Each human being is an immortal soul infinitely precious to God, and institutions shall be established to reach out and bring within the influence of civilization all and each.

Next after the church, the education of the State is all-important. The influence of the form of government, its laws, and the efficiency of their execution, have a most powerful effect in forming the character of each citizen. What can school education do toward making a man of the citizen who is born under the blight of absolute despotism? The education of the State would dwarf such an individual more than the school could cause him to grow. But under a free government, where each citizen is permitted to assist in making the laws, this education is very powerful toward building up self-respect and strong individuality. The school is not chargeable with the corruption in politics, where the political machinery is so loose that it encourages demagoguery by permitting partisan success to follow as a result of bribery and fraud. Such a condition of things will corrupt the best young men who graduate from the school; the school is helpless against the temptation which is offered at the hand of the State.

Next in importance to the education of the State is that of the social community, or the business vocation of the individual. The business relation of man to his fellowmen continually educates the individual, and humanizes him or dehumanizes him, according as it is a rational employment or a brutish one.

The education of the family is of exceeding great importance. It furnishes the human being with his bundle of habits, his forms of behavior toward his superiors and equals; his habits of personal cleanliness, of proper dress, of proper eating and drinking, and, in short, of the general conduct of life. It gives the child the knowledge of his native tongue, ideas of right and wrong. All
other institutions presuppose in the child that he has learned these great fundamental lessons from family nurture. If he has been so unfortunate as to have missed the priceless blessings of family nurture, the other institutions can make very little of him. The State will be unable to permit him to exercise his liberty, because he lacks the habits which make him a safe person; he has not put on the forms which are essential to the individual for life in a civilized community. The State confines him in a jail, therefore, because his period of nurture has been an education into hostility to social forms.

The social community, with its industrial vocations, cannot receive the child who lacks family nurture; for he lacks the sense of social propriety, has no respect for the rights of property, is not honest nor truthful, and has no instinct for industry. The beggar is the symbol of the destruction of the social community. Even the school cannot compensate for the lack of family nurture. It cannot deal with the child who does not know language, nor can it take time to teach him all the personal habits he should know.

The growth of a Christian civilization for two thousand years, is marked all the way along by an increase in the power to reach and elevate the mere individual into the full enjoyment of the products of the labor and of the results of the experience of mankind. It enables the individual to participate through trade and commerce in the productions of every clime, and to share likewise in the wisdom collected by all mankind in all times and places. This principle has taken care of the well-being of the individual in the church, the State, the social community, the school.

The humblest individual is allowed, nay, encouraged, to participate in the spiritual education of the church; the State has become democratic, and admits him to the privileges of self-government; the social community has emancipated him from servitude, and permitted him to choose his vocation and thrive by it; the school has come to his very door, and offered to every child its initiation into the wisdom of the race. But this Christian principle has not done so much for the education in the family. It has not equalized conditions in the family to the extent that it has equalized conditions in the school, the social community, the State, and the church. In the family, poverty and wretchedness are allowed to tell on the nurture of the child, and sow in him evil seeds which will grow through all after life, in spite of whatever the other
institutions may do for him. The criminal parent may bring up his offspring to vice. The ignorant parent may bring up his children to manifold bad habits of person and conduct toward others, which will prove embarrassments in after-life.

It is now the most beneficent effort in society that seeks to remedy the condition of the poor and ignorant, without depriving him of personal liberty. Social science teaches that the interest of the high and that of the low in society are one interest. No village can be healthy with a pestilential marsh adjoining it. No family, however elevated by rank or wealth, can shut up itself within its palaces so securely that an ignorant and degraded population surrounding it will not create for it a pestilential atmosphere. The piece of carrion corrupts the air far and wide. Life is perpetual participation in the totality of one's conditions. It is a continual readjustment to one's environment. The interest of each is accordingly the interest of all. If we wish to attain well-being ourselves, we must see to the well-being of our neighbors.

Social science is gradually concentrating its attention on this most important matter of family nurture. The problem is, how to assist the family without destroying its sacred privileges of privacy and self-management; how to interfere without undermining individual freedom; how to increase self-help instead of diminishing it. The first successful move in this direction is the study of the conditions of hygiene, and the provision for cleanliness, abundant pure air and pure water in the community. This is attended to by the department of health in our cities,—a recent institution, but one securing blessings to the family.

Efforts are now being made to improve the homes of the poor, to secure cleanliness, good ventilation, separate apartments for the members of the family, sufficient playground for children. These are great beginnings, but they are only beginnings, and are indirect contributions to the education of the family.

The noble woman who, as Secretary of this Department of Education, has inaugurated a system of inquiry into infant growth and development (Mrs. Emily Talbot, of Boston,) has undertaken an enterprise which promises very great effects in the direct promotion of the education of the family. She has devised a plan by which to interest the mother in her child's growth, and which will induce her to watch and record the steps of development in the unfolding of the faculties of the soul.
INFANT DEVELOPMENT.—MRS. TALBOT'S REPORT.

It does not so much matter what the statistics will show, as it does matter that the mother shall learn to study the growth of her child, and learn what constitutes a stage of progress, and how to discover and remove obstacles to this growth, as well as to afford judicious aid to the child's efforts at mastering the use of his faculties. One intelligent woman who is interested in this subject will kindle an interest which will spread throughout an entire town. The wisdom gained through these observations will extend gradually to all families, and will elevate the character of infant education incalculably.

When the mother becomes observant of the actions of the child as a matter of education, and when there comes to be a stock of generalized experiences on this subject, how much will be done toward correcting evil tendencies upon their first manifestation! It is a trite remark, that the shaping of a tree is an easy affair if undertaken while it is a sapling, but impossible after the tree has attained its growth. The education that goes on within the family is the object which now calls with most importunity on us for our attention as students of social science.

REPORT OF THE SECRETARY OF THE DEPARTMENT.

That portion of Mrs. Talbot's Report having reference to the subject of Infant Development was as follows:

The importance of making some systematic effort to record the development of infant life has occupied the thoughts of many people in various countries for a long period, and observations of isolated cases have been made, such as those by Mr. Alcott, on a group of children fifty years ago, in Pennsylvania; that by Taine, on the "Development of Language in a Young Child;" that by Charles Darwin, on the "Expression of the Emotions," and by Professor Preyer, on "Psychogenesis." In a more modest way, and from the impulse of strong parental feeling and curiosity, rather than from any deliberate intention of making a scientific investigation, mothers here and there, in this and other countries have kept a diary of the physical and mental development of their children. It was suggested at the last General Meeting of this Association that in this field was a work which ought to be seriously undertaken, and that this Department should begin the difficult,
IV. SOCIAL ECONOMY.

Prof. W. B. Rogers, Chairman.
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Mrs. S. Parkman, Boston.
Mrs. Henry Whitman, Boston.
John Ayres, Boston.
Miss Lucy Ellis, Boston.
George S. Hale, Boston.
Henry S. Grew, Boston.
Elizur Wright, Boston.
R. T. Paine, Jr., Boston.

Rev. E. E. Hale, Boston.
Charles F. Coffin, Richmond, Ind.
Dr. R. T. Davis, Fall River, Mass.
Charles L. Brace, New York.
Rev. E. C. Guild, Waltham.
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V. JURISPRUDENCE.

Prof. W. G. Hammond, Chairman.
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O. W. Holmes, Jr., Boston.
W. A. Field, Boston.
Prof. Johnson T. Platt, New Haven.
Rev. W. G. Eliot, St. Louis.
The Department Committees are as follows:—

I. EDUCATION.

Prof. W. T. Harris, St. Louis, Chairman.
Prof. Benjamin Peirce, Cambridge.
John D. Philbrick, Boston.
Charles C. Perkins, Boston.
Mrs. S. Parkman, Boston.
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James M. Barnard, Boston.
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A. C. Perkins, Exeter, N. H.
Prof. W. F. Willard, Connecticut.
F. W. Tilton, Newport, R. I.
Miss Anna C. Brackett, New York.
task. The value of the suggestion was confirmed by discussion; advice was sought from men of science and psychologists, gentlemen eminent in their specialties; correspondence was opened with distinguished Europeans, and one result may be seen in a simple and concise register which, in the form of circulars and by reprints in many different newspapers in this country and in England, has reached tens of thousands of readers, and brought to this Department a wide and interesting correspondence. It is too soon to announce results; too soon to formulate any theory of the physical and mental development of children, but we are already in possession of interesting facts. We have hundreds of mothers engaged; many of whom have been trained in our universities and colleges to make investigations with accuracy, and to weigh evidence with candor. With patience and perseverance we hope that this Department may soon make such progress in the collection of facts as to justify the attempt, that in the course of the next decade a continued series of observations, in large numbers, may reveal order in the variations of phenomena, and that some portion of the secret of the mental and physical development of infants may be discovered. The interesting communications from Mr. Darwin and Mr. Alcott here-with submitted, will illustrate what the Committee have aimed to do, which will also appear in detail from the Register itself appended to this report:

LETTER OF MR. DARWIN.

DOWN, BECKENHAM, KENT,

RAILWAY STATION, ORPINGTON, S. E. R.,

July 19, 1881.

Dear Madam:—In response to your wish, I have much pleasure in expressing the interest which I feel in your proposed investigation on the mental and bodily development of infants. Very little is at present accurately known on this subject, and I believe that isolated observations will add but little to our knowledge; whereas tabulated results from a very large number of observations, systematically made, would probably throw much light on the sequence and period of development of the several faculties. This knowledge would probably give a foundation for some improvement in our education of young children, and would show us whether the same system ought to be followed in all cases;
I will venture to specify a few points of enquiry which, as it seems to me, possess some scientific interest. For instance, does the education of the parents influence the mental powers of their children at any age, either at a very early or somewhat more advanced stage? This could, perhaps, be learned by schoolmasters or mistresses, if a large number of children were first classed according to age and their mental attainments, and afterward in accordance with the education of their parents, as far as this could be discovered.

As observation is one of the earliest faculties developed in young children, and as this power would probably be exercised in an equal degree by the children of educated and uneducated persons, it seems not impossible that any transmitted effect from education could be displayed only at a somewhat advanced age. It would be desirable to test statistically in a similar manner the truth of the often-repeated statement that colored children at first learn as quickly as white children, but that they afterwards fall off in progress. If it could be proved that education acts not only on the individual, but by transmission on the race, this would be a great encouragement to all working on this all-important subject.

It is well known that children sometimes exhibit at a very early age strong special tastes, for which no cause can be assigned, although occasionally they may be accounted for by reversion to the taste or occupation of some progenitor; and it would be interesting to learn how far such early tastes are persistent and influence the future career of the individual. In some instances such tastes die away without apparently leaving any after effect; but it would be desirable to know how far this is commonly the case, as we should then know whether it were important to direct, as far as this is possible, the early tastes of our children. It may be more beneficial that a child should follow energetically some pursuit, of however trifling a nature, and thus acquire perseverance, than that he should be turned from it, because of no future advantage to him. I will mention one other small point of inquiry in relation to very young children, which may possibly prove important with respect to the origin of language; but it could be investigated only by persons possessing an accurate musical ear. Children, even before they can articulate, express some of their feelings and desires by noises uttered in different notes. For instance, they make an interrogative noise, and others of assent and dissent in
different tones; and it would, I think, be worth while to ascertain whether there is any uniformity in different children in the pitch of their voices under various frames of mind.

I fear that this letter can be of no use to you, but it will serve to show my sympathy and good wishes in your researches.

I beg leave to remain, dear madam, yours faithfully,

CHARLES DARWIN.

TO MRS. EMILY TALBOT.

MR. ALCOTT'S LETTER.

CONCORD, Massachusetts, August 31, 1881.

Professor W. T. Harris, Orchard House, Concord:

Dear Sir: You ask me to give you some extracts from my notes on Infancy, taken during the earliest years of my children. The following are now submitted to your perusal. In copying them from my manuscripts I beg you will remember that (while they may gain in scientific clearness) they may lose some of the attractiveness you found in them, when read in connection with the reflections and inferences made at the time of writing. The psychology must remain for the present untouched, but, in copying for your use, I allowed myself to improve the phraseology, making an occasional change for the sake of greater clearness. I confine myself to notes taken during the first three months of my eldest child's existence.

NOTES FROM THE DIARY.

March 16, 1831.—During the first days after birth she slept most of the time. As she gradually awoke and was exposed to the light, she opened her eyes as if intent on adjusting these for the purpose of seeing. Luminous objects particularly attracted her notice. While viewing these her hands moved instinctively, her arms were extended and drawn toward the mouth, which also appeared to be sensitive to the stimulus by frequent movements of the lips and tongue.

Tenth day after birth.—Her features are daily assuming a more sensitive and mobile expressiveness. To-day her attention was arrested by the contrasted colors of her mother's dress, and her attention was accompanied with a smile. She sleeps less, and is more observant (if I may say so) when awake.
Fifteenth day.—I notice an increased power of the sense of sight. A watch was held before her till she caught the sight of it, and followed its motion with her eyes while moved in various directions.

Twentieth day.—Her progress can be seen and marked daily, yet almost imperceptibly. Her existence is pleasurable, if the absence of crying, and her quiet moods, are trustworthy indications. If any sense brings the greater delight, it appears to be the sight; particularly when bright objects are placed at some distance they attract her notice. The morning hour, or the times of waking from her slumbers during the day, bring a freshness of perception.

Twenty-fifth day.—Her hands, when she is awake, are kept in constant motion, and these motions are becoming daily more energetic and direct, as being brought under the control of the will.

Thirtieth day.—When addressed, she turns towards the person speaking, as if eager to catch the tone of voice and distinguish the individuals; and the periods of attention are more prolonged and frequent. I am unable to discover that she distinguishes particulars from generals, as yet; or that recollection has dawned upon her, by which to discriminate one object from another. I imagine this belongs to a later stage of growth. Her progress has been chiefly indicated by longer-sustained efforts of attention to sounds, to form, and to motions, of which she appears to be already vaguely cognizant. Placed before a mirror to-day, she seemed for an instant to have caught the reflected image of herself and was lost in wonder at the vision, while this soon faded and itself became lost in the surrounding objects of the nursery. So the poet Shelley says:

The babe
In the dim nearness of its being feels
The appulses of these sublunary things,
And all is wonder to the unpracticed sense.

Fortieth day.—Since the last record her progress has been marked and significant; she listens to voices for some instants, and is attracted by the soft and suppressed tones; violent notes displease her. Her hours of wakefulness become longer daily, and she fixes her attention for longer periods. She takes much satisfaction in looking from the window at objects and movements outside. She has not yet been taken out of doors.
Sixtieth day.—A vase of flowers standing upon the mantelpiece attracted her notice, as she lay on her mother's lap, and she showed her pleasure at the sight by a smile. Her sleep seems mostly undisturbed and dreamless. Careful attention is paid to her dress, a disregard of this and of air and bathing, under a nurse, being avoided by the care which her mother gives.

Sixty-ninth day.—Lying in her mother's lap to-day, she caught a glimpse of her mother's finger ring, set with amethyst, at which her pleasure was great, keeping her attention on it for several minutes.

Seventy-seventh day.—While lying on the sofa she observed the varied colors of its cover; the color of her dress also, which she attempted to seize and detain in her hands. She is now almost able to hold her head erect without other support. Six days ago, the emotion of terror was excited on beholding a distorted face (May 24), and manifested by loud outcries; she seeking protection from the face in her mother's arms. It was long before she was restored to her accustomed tranquility—the vision perhaps reappeared in memory, haunted her fancy and brought tears to her eyes.

Seventy-eighth day.—On being carried into the yard she seemed lost in wonder at the varied pleasure. The open mouth, hands motionless, eyes expanded, betrayed the new sensations. She has now obtained sufficient command over her hands to grasp objects presented and hold them at will. This affords her an apparent satisfaction.

In closing, I transcribe a single reflection from the notes:

How wonderful is the progress of infancy; how involved in mystery! Repeated and successive acts of the senses precede the emergence of the indwelling mind into the light; and all emotions of the mind are unlike the movements we note in matter. We cannot affirm of this, it is, as we hesitate not to affirm of that. Now this addition is to be made to it, and now that: now it is about exhibiting such and such specific modifications—new elements are being intermingled; now observe how it behaves! But while we thus note the mind's mysterious operations as these move ceaselessly and noiselessly on, behold! ere we are aware, it has assumed new forms, unexpected changes occur, progress has been made, and the mind is.

A. Bronson Alcott.
In the absence of Mrs. Talbot, Mr. Sanborn read at the Saratoga Meeting of 1881, the cases reported by Mrs. Talbot from her correspondence with fathers and mothers, previous to August last. Several of these cases, as presented, with remarks by Mrs. Talbot, are given below, and following them will be found the essays of M. Taine, Mr. Darwin and Mr. F. H. Champneys, who have made careful observations in France and England. Mrs. Talbot's cases, with one exception, are from the United States,—the exception being the child of a Dutch family at Delft.

CASE A.

In this case, the following observations and suggestions are of interest:

The father of these children is a teacher. Both parents were born in New England, but at present reside in Virginia. One of the children was born in North Carolina, the other in Virginia. The interest of this observation seems to have centered upon the comparative development of the two children at the same age.

The weight of No. 1 at birth was seven pounds; of No. 2, eight and a quarter. At the age of six months, the weight of each child was the same. No. 1 was nursed till he was sixteen months old, and liked fresh figs especially. No. 1 smiled when one day old. No. 2, when two days old. No. 1 sat alone on the floor when five months old. No. 2 is still too young for a comparison to be made on this point. No. 1 says "Titten" (Kitten) at 14 months. No. 2 appeared sensible to sound three hours after birth, held up his head and followed a light with his eyes at three weeks, noticed its hand at five weeks, and held a plaything at six weeks.

The mother writes to Mrs. Talbot, as follows:

ALEXANDRIA, VA., July 11, 1881.

Dear Madam:—You asked for suggestions, one or two of which I now make:

a. It seems to me that a question or two in regard to the character of food, frequency of feeding, etc., might be valuable in this connection, as observation teaches me that the mental development is largely influenced by these. b. My own children, brought up "by rule," and neither they nor their parents using any form of stimulating food, do not develop as early as their cousins, not under the same treatment, but are both of them exceedingly rugged.
Where in the series, whether first, second, or only child, is another determinative influence. My second child gives promise of excelling his sister because of her attention, example, etc.

[I make a very incomplete account of this baby of three months.]

c. The question as to the earliest exhibition of consciousness, seems to me a little ambiguous. Conscious of hunger, of the difference between arms and the bed, certainly,—yet I doubt that being the meaning of the question.

My first child, at five months, moving her finger over a plaything, heard the scratching sound thereby occasioned, stopped and listened, repeating till she had evidently clearly established the relation between the motion and the sound. This I have been accustomed to consider her first intelligent act, yet she had long before learned to distinguish between her mother and other attendants.

Medical works give six to ten hours as the earliest time at which hearing is possible, but my boy, born at 1.30, certainly heard, and nervously started at the sound of the cock crowing at 4.30.

This mother has raised questions of great importance, which may well occupy the attention of our observers for a long period. The statement (a) that mental development may be influenced by the character of the food given, is a broad one and will admit of experiment. The recorded experience of different parents on this subject of when and how to feed a young child, would be of great service. In the statement (b), this observer concludes that children brought up by rule, that is, fed regularly as to time and quantity, are thereby retarded in their mental growth; a gain, however, in physical strength is intimated. While considering this question of how to feed children, it is desirable that observers should read Pavy "On Food," or other authorities. Those who have already accepted the theory of "rule feeding," should recollect that an infant sometimes falls asleep before the needed amount of food is taken and will then fret for more before the appointed hour and thus, fatigued and faint, not be in a condition to easily digest food when it is next taken. The influence of undue prejudices must be guarded against in making observations, and because overfeeding sometimes induces illness care must be taken not to follow the other extreme and weaken a plump-looking child by the too long continued use of milk and farinaceous pap. The significance of the first appearance of the teeth should be noted and how long their legitimate use may with wisdom be delayed. Idiosyncracies of taste and cravings will often be observed, and
may well be regarded. Because this tender being is human, a moderate degree of change in its surroundings, and of variety in its food may be found essential to its physical and mental health. To pass safely through illnesses and to endure exercise and moderate excitements without fatigue will be the best test of these experiments, concerning food. Under (c), this observer expresses doubt as to what is meant by the "earliest exhibition of consciousness." To throw more light on the growth of self-consciousness in young children from the parents' point of view, is one of the objects of these studies. The subject has been examined and discussed by Prof. Preyer and Bernard Perez.* The children under consideration are peculiar from the fact that they were observed to smile the first days of their existence. The state of the subject under observation should be carefully considered in deciding upon a sign of development like that of the first smile. The facts connected with the delivery, if rapid and easy or slow and difficult, with development, whether perfect or imperfect, with the natural disposition, if it be merry or otherwise,—all these circumstances should be considered.

It will be noticed that these children were born in a more southern latitude than those of any other recorded cases which have been made public. It will be well to inquire whether this fact tends to hasten or retard development, or if any special result from such a circumstance is noticed by any observer.

CASE B.

A STUDY ON HEREDITARY TRAITS IN THE CASE OF C. W. S.
(Madison, Wisconsin, May 9, 1881.)

It was the father's system to observe certain inherited traits or to seek for their exhibition. He did not come of a literary or voluble race. Neither the father nor mother of the child in question is fluent in speech. The father is rather reserved, silent, and is accused of sullenness, frequently, from distaste of exercising his vocal functions. He dislikes talk in others even to the extent of being prejudiced against lectures, preaching, society, and even singing, except, in the latter case, singing that is scientific, so to speak. The mother does not talk much, though having no such prejudice against it in others,—preferring it, rather. It might be expected that

the child would not show his intelligence mainly by fluency in articulating words. It is the father's opinion that speech comes natural, without being taught. He has observed in this child a gradual increase of power in the exercise of the vocal organs with the gaining of the teeth, and the strengthening of the various muscles of the mouth and chest. He is surprised indeed to notice how loud a voice a child can produce, even a very young child, compared with young animals of other species. It is to be observed also that the child seems to take up at times a habit of amusing itself by making various tones, or producing varying inflections of the voice—a sort of sound like preaching heard at a distance, or a ranting like a poor actor, then a hallooing, and again, as at a year old, of sounds alternately high and low at short intervals, somewhat as a person learning to sing practices octaves. Although deficient in vocal tastes, the father has a perhaps exceptional facility in acquiring arts of manual dexterity. He plays readily on half a dozen musical instruments, violin, violoncello, flute, zither, piano, and, as secondary to these, the organ, which requires a different touch not so easily acquired by many good musicians. As a musician he has had good instructors, and appreciates and performs music of Bach, Beethoven, Mendelssohn, Wagner, Berlioz, etc., and takes pleasure in the literature relating to this art. Naturally a musician cannot be wholly either right or left handed. Both hands and arms must be developed. Therefore it was with some curiosity that the child was observed, whether he would show marked preference for either hand. He does not. He shows remarkable impartiality of hand, but still there is an implied exercise of the right, as in taking up his playthings and throwing them away when playing or tired of them.

This might easily be inherited, for though a musical education would develop both hands, to paint and write and draw and otherwise use one hand would give that an added vigor which would have its influence. Then, too, in doing a certain thing, it is certainly a disadvantage to try to do it in different ways when its perfect doing is the result of repetition, and of acquiring habits relating to unconscious action rather than a discipline. It is the difference between art and mere tentative attempting.

It was the desire of the father to have the child show a preference for his own art, that of painting. Therefore he encouraged every implied turning towards this temperament. The wish of the child to be out of doors, his contented pleasure when there, his enjoyment in riding both in a baby wagon and in a buggy, seemed to imply that pleasure in nature which was desired. Tests were made to see if he distinguished tones, by putting him upon the piano and playing softly, even from earliest days. It was, however, very lately that he implied any recognition of musical tones, though he early gave notice of delicacy of hearing, yet seemed insensible to sounds like thunder, or cannons firing, for several
months. Now he has learned to understand tones of voice, and if told not to do a thing, understands it as a prohibition, though he may not obey, having, of course, no fear of punishment from disobeying; therefore, he will sometimes scamper away when he sees any one coming to interrupt his destructive employments. Destructiveness seems prominently displayed. His pleasure is to tear things, paper, strings; a probably curable trait.

When the violoncello is played, he likes to get up along side, often leaning against it; not from love of music, but to be in the thick of the stir. He has to be watched lest he put things into the round holes, another of his traits.

That there are retrograde days, and days of progression, seems evident. Some days he will learn half a dozen new tricks, then he may go for a month without trying anything. When he gets some "new wrinkle," he is not satisfied unless he can be doing it all the time. When learning to bear his weight on his feet, he must be attempting it with wearisome pertinacity. I think such childish habits as squinting the eyes up, sticking the tongue out, putting the head one side or the other, or hiding it, playing "peep," or "pata cake," should be noticed as things easily to be dated. The pulling a handkerchief off his head and laughing heartily at it, occurred when but a few months old.

Considerations as to facility with his fingers and hands should be noticed; the power of picking up very small things, of putting a stick to a definite place, as through a hole, etc.

That a child does most of his actions by inherited instinct seems to me most plausible. I think, as comparing children with dogs, that, aside from the physical condition, the inherited taste is first shown. Little puppies of a retriever breed will begin to take things lither and thither in their mouths long before puppies of an uneducated ancestry, though there will be a difference in talent and exceptions. In children, besides the natural self-assertion of a young child, there will continually crop out a hint of an inherited facility, which he uses without being taught. Then there is association. Having always seen a dog about, he has no fear of a dog, wants to pull him and roll about with him, does not fear the bark of a dog, though a little startled, if sharp; but of horses he has fear, and a certain fascinated interest,—wants to know them, and yet is afraid.

I throw out these suggestions without much thought of their proving particularly valuable, but in a belief that your list of questions would, in a scientific sense, be made more valuable if extended to individual qualities, to determine exactly what is natural to all children, what peculiar to the exceptionally intelligent, and what is the result of heredity and association.

The child above described his father was born April 14, 1880; his parents were born respectively in Ohio in 1840, and in Minne-
sota in 1851. He weighed 8½ pounds at birth, 14 at three months old, and 21 at a year old, when also he was 29½ inches in height, and was strong and healthy. He smiled at five weeks (?), exhibited consciousness at eleven weeks, noticed pain at two weeks, noticed the light before eight weeks; could creep at ten months, and stand alone at twelve months.

CASE C.

ASHBURNHAM, Mass., July 18, 1881.

The children are twin boys, born June 5, 1881; the elder weighed 7 pounds, the younger 6, at birth. The elder had a thick, round head, plenty of dark hair, was stupid and sleepy; the younger had a head narrow and high, long from front to back, with no hair; he was active, with eyes wide open and restless; his mouth open and moving for food from the first. The elder seemed considerably the most mature. He recognized the light of a window (evidently) at the age of 20 hours,—as he was looking at it he was turned round so as to bring the other side towards the window, and at once turned his head towards it. He recognized sounds in a day or two. The younger recognized light and sound in the same way a day or two later,—in general he was a little later in all his developments.

June 15.—(Ten days old.) Both evidently noticed a piano played in another room,—stopped their incessant baby motions to listen, and put on the same listening look as adults do. This was repeated for a day or two, at times when the piano was played; but afterwards as the sound grew familiar they ceased to notice it.

June 25.—(Twenty days old.) Both lift their heads strongly, but cannot hold them up,—the elder, as usual, a day or two ahead. Between the third and fourth weeks they are beginning to fix their eyes on objects as distinct. The elder clearly looked at me as I talked to him, and also at a hand moved in front of him. Neither can yet follow an object, or knows which way to turn for a sound. They look at any one speaking, as yet, only occasionally and for a moment. They wink at a sudden sound, but not at a hand struck close to the eye. The nurse can wash through the eye at first, or throw water in it without their closing it. Tapping them all round the eye within half an inch of it, they do not move till the taps reach the nose near the inner angle, when they partially wink. They spring at sudden sounds, as of a door shutting.

July 2.—(Twenty-seven days.) The mother and babes moved to a new room down stairs. They looked round in wonder, stared evidently, in their new quarters. This soon ceased, in the main, so far as their new room was concerned, but is renewed when they are carried about.
July 4.—The bells and firing woke them rather early, and the younger soon grew nervous, so as to spring and throw up his hands at the explosion of a fire-cracker or other noise. This subsided as the morning clangor died away.

July 7–9.—(Fifth to sixth week.) They fix their eyes sharply on an object moving, or a person speaking, close in front of them. They begin to take evident pleasure in being talked to, drawing towards a smile occasionally when played with. They begin occasionally to turn their heads a little towards voices quite near,—that is, there seems to be the first dawn of an intelligent motion; mostly, however, mere aimless turning as yet. Their eyes, in their incessant rolling, usually move together, but not unfrequently they turn different ways, generally inwards; that is, they look cross-eyed. This was not noticeable for the first three or four weeks, but evidently comes from the child’s ill control of his muscles, now that he has gained the power, and attempts to look at objects definitely.

July 12–15.—The eldest has now no difficulty in looking at a person speaking to him, or at a near moving object, when directly in front of him. He evidently sees a person moving at a distance of 8 or 10 feet; the younger cannot do this yet. The elder now for a few days manifests pleasure in being talked or sung to, his face beaming, his arms striking out more vigorously, and himself often springing up towards the speaker. He looks at our faces now, with an intelligent look. The younger manifests all this in a less degree; that is, he traverses the same ground a few days later. The younger likes to be “cuddled” best; the elder has more of the “go it alone.” Four or five of us are tending them, off and on, during the day, so that neither as yet seems to know the mother or any one in particular. If there is any special recognition it is occasionally of the housemaid, who comes in and sits with them while the family are at meals,—it does not amount to recognition, but to manifest liking of her voice and manner. They plainly know, as they lie on their mother’s arm, her motion of preparing to nurse them, and change their hungry crying to an impatient brooding noise.

A singular thing was remarked by the nurse when she first undressed them (2d day), and has been noticeable ever since. As she expressed it, they “seemed to be afraid of falling to pieces.” As they are being washed, and are turned over or raised or lowered, they clutch with their hands, spring, catch their breath, etc., precisely as if afraid of falling. This was very slight at first, but increases. The youngest, who is most nervous, shows it most. Both manifest this occasionally when dressed, but in a less degree. The younger shows the same feeling on being swung on the hands, and does not like it; while the elder enjoys the motion, and will often go to sleep that way. This fear of falling was not noticed when they were dressed for the first two or three weeks.—I doubt
if it was shown, for I several times looked for it. It evidently grows on them.

The most remarkable thing that I have watched so far has been the development of the smile. A baby does not smile or do any thing else for the first time. That is, nothing is clearly marked at first. The smile begins when the infant first begins to be conscious of outside things; attention gradually becomes closer, more fixed; the smile at this stage is the mere stare, vacant at first, but growing steadily more intelligent and wondering in its appearance. About the third week this begins to relax very slightly into the appearance of pleasure. At this point there comes first more and more of a glow on the face,—a beaming,—then in a day or two a very slight relaxation of the muscles, increasing every day. Now—July 16—18 (sixth week), this is very noticeable in the elder,—his look of intelligence, of pleasure, of a dawning smile, is often very beautiful, but it is not as yet a smile. The younger is yet in the wondering, beaming, slightly pleasurable stage; he shows his satisfaction by pushing out his eyes and pursing of his mouth as if to whistle. The look (at this stage) in both may be described as one of satisfaction—self-satisfaction—rather than of pleasure. The smile is just now incipient, just beginning, in the younger, and well-nigh developed, almost a smile, in the elder. But I am confident no one will ever know the exact day when the baby fairly and intelligently for the first time smiles.

(At a later date—Nov. 2, 1881.) There are some other items which I was not prepared to insert at the former time of writing. For instance, my wife insisted from the first that the boys were strikingly "marked" from the two pictures hanging in my library. The resemblance was indeed startling at first sight, but I was desirous of confirming it by more careful thought. The pictures were of Agassiz and Horace Mann, as unlike as could well be imagined. But there can be no question whatever that the elder boy had the features, expression, hair, short neck, etc., of Agassiz,—while the younger had the thin hair, sickly eyes, etc., of Mann's picture. The hair on Agassiz's head is parted on the right, and falls over to the left, giving the right a bald appearance. The babe has exactly this baldness, the hair growing an inch farther forward on the left side than on the right! The resemblance in the elder still continues (and may it ever, mentally and morally!) but the younger has mainly outgrown his resemblance to the other picture,—though my wife insists that the resemblance is only obscured, and will reappear when the baby plumpness passes away.

Another thing that has interested me has been the change in the head of the younger as indicated by the rough diagram enclosed. From being a little, weak, thin-headed baby, he has grown a strong, fat, round-headed boy.

But I weary you. I am so pressed with work that I have very little time to make observations, and still less to record them.
the subject is very interesting and full of instruction, though so much beyond our reach.

CASE D.

(DELFT, HOLLAND, 1877-81.)

The following study is of special interest from the facts that the birthplace of the subject is quite remote, the food on which the child was nourished in infancy is unlike that usually provided for young children in America, and he has been from birth and is still under careful observation by competent parents. The father is a native of The Hague, and is a doctor of science and professor of chemistry. The mother was born in Alkmaar; she is proficient in several languages, in literature and in music. They now reside in Delft, Holland, where the boy was born in January, 1877. He weighed at birth 8½ pounds, at 2½ years 33 pounds, at 4 years 44 pounds. During the first three weeks he slept 19 hours out of the 24. He laughed for the first time, but unconsciously, at the age of 3 weeks; and smiled wittingly in the 7th week. He followed a light with his eyes in the 6th week, held up his head in the 3d month, and cut two teeth in the 4th month. At the same age he held objects firmly in his right hand, and could also throw them with force. He had natural nourishment till 6 weeks old, then Liebig's food for infants was added till 3 months old, and after, that was the only food, when milk was given up. At present he likes all kinds of food, except butter, cheese and vinegar, but prefers bread, milk, and meat. At 6½ months he began to say ada, aida, jajo; at 9 months he said popa and mamma. At 21 months he could talk very well, and had an excellent memory; he could also sing correctly. At 20 months he could recite several little verses, and knew the letters of the alphabet, both large and small; he could also point out and name all the parts of the body. At 22 months he first spoke of "me" as a personality; he also knew the different colors. At 2½ years he could sing several songs with only the aid of the piano. His body is large and strong and his head well formed. It has always been difficult for him to pronounce the letter l and is still. He is now, at the age of 4 years, learning to play the piano. He has a very clear and sweet singing voice, and readily takes an octave either above or below any pitch given him.
A full diary of the development of this boy to the present time is at the disposal of the Committee should they desire it.

It is desirable to know more about the kinds of food given to very young children in Holland. Possibly the experience of another year will furnish further information on the subject. During the past summer a party of physicians staying in Rotterdam were greatly impressed with the clean, healthy and happy appearance of the children in the streets. Although a commercial town, and subject as other seaports are to a low moral influence, which is soon made manifest in the neglect and squalor of the young, nothing of the sort is to be seen in Rotterdam. The bright eyes and rosy cheeks of the infants tempted an inquiry of the parents as to their method of caring for their children. A daily bath, lightly boiled cold eggs morning and night, meat at noon, and all the bread and milk they desired in addition, was said to be the "custom" in Rotterdam. If this is correct, how far through Holland does it prevail? and how far is the same custom followed in other countries? A comparative study of some of the results of this manner of feeding the young, and of a milk and farinaceous diet would be of great value.

CASE E.

Another comparative case is submitted, that of two boys, both of whom were born in Connecticut, together with their parents. No. 1, at 8 weeks, "tries to smile;" No 2, at 8 weeks, "smiles beautifully." Both held up their heads at birth; this was remarked by several persons. No. 1 sat alone on the floor at 8 months, No. 2 at 5½ months. No. 1 stood alone at 14 months; No. 2 stood alone in the middle of the floor at 10 months, and waved a wooden dumb bell. No. 1, at 1 year, could utter syllables, but no words. No. 2 could speak, at the same age, four words of his own, and imitate everything. At 15 months No. 1 could say a very few words; No. 2 everything, but verbs were given in the imperative. At 2 years old No. 1 talked exactly as No. 2 did at 18 months; while No. 2 was a perfect chatterbox. The weight of No. 2 at 2 years was 36 pounds, height 37 inches. The weight and height of No. 1 is not given when at the same age. It will
be seen in the following remarks made by the mother of these children, that the influence of the power of imitation has attracted her particular attention.

June 3, 1881.—I have kept records, but have concerned myself more with the relative development than the absolute time of the appearance of any new phenomena, and the dates are not those of the first time an act was noticed, but such time as the habit was well formed. (I think I was afraid of a mother's partiality!) I have, therefore, put down only so much as I found absolutely stated, and have put the two children together, that you may see how much ahead (in time) No. 2 is of No. 1, in walking and talking. I am curious to know if that is not apt to be the case. I have noticed very many things in which the children imitate each other, and they never talk very much alike. No. 2 had No. 1 to imitate, while No. 1 had no child to copy after. I put their height in answer to "strong and healthy?" because growth in that direction seems to me as important as that in weight. My children are not at all precocious, but I am rather proud of their physical development,—striving for mens sana in corpore sano. I have particularly desired to investigate the lingual development (order of parts of speech, &c.), as an indication of character, and last winter went so far as to prepare a circular to forward to my Vassar friends, but was prevented by sickness and removal to this place. I shall, therefore, look with great eagerness for results which may come through this attempt of the Social Science Association, and shall be glad if you will send me anything you may publish pertaining to the subject. I should vote that an enquiry be made into the "occupation" of the mother as well as of the father. Ruffles and frills versus "cultivation of brains" for instance—will it not make a difference in the weight of the baby? I think it does. I don't feel satisfied with Dr. Preyer's suggestion that fathers should take up this matter. Scientific observation of the baby ought to be the mother's compensation for the tedious routine of her daily duties.

CASE F.

M. G. D., born in Rockingham County, Virginia, Feb. 25, 1881, is the daughter of parents of more than common attainments. The mother, who has displayed great skill and success in developing the faculties of her family of seven children, from the first week of their existence, pays much attention to the formation of their habits. She is much opposed to corporal, or any other severe punishment. This infant was strong and large at birth, and at 4 months weighed 17½ pounds. She noticed the prick of a
pin when 2 days old; when three weeks old she smiled; at 10 weeks she held up her head, and reached out and took a plaything at 12 weeks. The mother writes to the Committee as follows:

This baby is now four months old, and is thought by all to be a remarkably fine child. She is very large, sits up boldly when held on the arm, and shows evident preference for some members of the family; fretting to be taken by her father, who always carries her to the open air, and shows her little dogs and other pets. When sleepy or hungry, she frets to be taken by her mother, though at other times quite willing to be in the room with me, and carried by the nurse and older children. She has one tooth, a very unusual thing I think, for I never saw a child who had any teeth before six months, nor generally before eight, except one of my other children, a little girl now seven years old, who also had two teeth at four months. The baby resembles this little sister in physique, development, features, and color of hair, but not of the eyes. The little girl mentioned spoke nine words plainly at nine months of age. This we noticed at the time, as her father was reading the life of a Lord High Chancellor of England, an ancestor of the baby, and drew my attention to the fact that the mother of the distinguished jurist had mentioned in letters to friends that at eight months he could pronounce several words quite plainly. The fact of the relationship might have no psychological significance, being eight degrees removed, but that the same ancestor stands in equal degree of relationship to both father and mother of this child's father, and that there have been several marriages of cousins intervening.

Children vary greatly in the development of strength as well as sense. One of my boys at the age of 16 months could not speak a word or walk a step, but at his present age, 14 years and 1 week, he measures 5 feet 8 inches, and can walk 20 miles in a day.

I had supposed, from my experience with this boy, that girls developed more rapidly than boys, but a little boy 2½ years old was a precocious child, walking before he was a year old, and learning little hymns and songs when 16 months old. He also shows great powers of observation, as noticed by us all one day when he was about 23 months old. Several older members of the family were commenting upon the improved appearance of a cow which we had bought a few months before, looking at the time at an animal supposed to be the cow mentioned. Little Willie looked out of the window an instant and exclaimed, "dat is not our tow, dat is Mrs. Paul's tow in our yard,"—which proved to be the fact. Both cows were red with white spots, and had crumpled horns. This little boy, when less than 2 years old, would tell visitors accurately the pedigrees, for several removes, of the horses whose pictures his father has hung up about the house. This faculty, as well as his acute observation of animals, is a direct inheritance
from his father and paternal grandfather, both of whom had an impression that "blood is thicker than water," and were enthusiasts in genealogies and pedigrees (English characteristics), as well as "physical perfectionists."

One of the advantages ladies of the South can see in their adversity, which certainly seems at times "like the toad, ugly and venomous," is, that being deprived of the faithful "mammies" who guarded their own infancy, they are obliged to keep their little ones more under their own care, and can see that the senses, so early and keenly alive to impressions, shall have such care as will train and lead them in the right direction. This is a subject in which I feel great interest, for I think few mothers are aware how early children can be trained to habits of neatness, truth, love, etc.

The Committee have received notes of many other cases, which will be presented hereafter; but the above examples will be sufficient to indicate the character and variety of the observations reported to the Department Committee, in response to Mrs. Talbot's Circular. It will be understood that the Committee disclaim all responsibility for the sentiments expressed by the writers of the various reports, which often indicate the influences under which the child is developed. The Register will be given on pages 51–52.
M. HIPPOLYTE TAINÉ’S PAPER ON INFANT DEVELOPMENT.

(Reprinted from Mind, April, 1877, No. VI., p. 292.)

The following observations were made from time to time, and written down on the spot. The subject of them was a little girl whose development was ordinary, neither precocious nor slow.

From the first hour, probably from reflex action, she cried incessantly, kicked about and moved all her limbs, and perhaps all her muscles. In the first week, no doubt also by reflex action, she moved her fingers, and even grasped for some time, one’s fore-finger when given her. About the third month she begins to feel with her hands and to stretch out her arms, but she cannot yet direct her hand; she touches and moves at random; she tries the movements of her arms and the tactile and muscular sensations which follow from them,—nothing more. In my opinion it is out of this enormous number of movements, constantly essayed, that there will be gradually evolved by gradual selection the intentional movements having an object and attaining it. In the last fortnight (at two and a half months), I make sure of one that is evidently acquired; hearing her grandmother’s voice she turns her head to the side from which it comes. There is the same spontaneous apprenticeship for cries as for movements. The progress of the vocal organs goes on just like that of the limbs; the child learns to emit this or that sound, as it learns to turn its head or its eyes, that is to say, by gropings and constant attempts.

At about three and a half months, in the country, she was put on a carpet in the garden; there lying on her back or stomach for hours together, she keeps moving about her four limbs, and uttering a number of cries and different exclamations, but vowels only, no consonants; this continued for several months. By degrees consonants were added to vowels, and the exclamations became more and more articulate. It all ended in a very distinct sort of twittering, which would last a quarter of an hour at a time, and be repeated ten times a day. The sounds (both vowels and consonants), at first very vague and difficult to catch, approached more and more nearly to those we pronounce, and the series of simple cries came almost to resemble a foreign language that we could not understand. She takes delight in her twitter like a bird; she seems to smile with joy over it, but as yet it is only the twittering of a bird, for she attaches no meaning to the sounds she utters. She has learned only the materials of language. (Twelve months.) She has acquired the greater part quite by herself, the rest thanks to the help of others and by imitation. She first made the sound ma spontaneously by blowing noisily with closed lips. This amused her, and was a discovery to her. In the same way she made another sound, kraauau, pronounced from the throat in deep
gutters; this was her own invention, accidental and fleeting. The two noises were repeated before her several times; she listened attentively and then came to make them immediately she heard them. In the same way with the sound popopopa, which she said several times by chance and of her own accord, which was then repeated to her a hundred times to fix it in her memory, and which in the end she said voluntarily, with a sure and easy execution (always without understanding its meaning), as if it were a mere sound that she liked to make. In short, example and education were only of use in calling her attention to the sounds that she had already found out for herself, in calling forth their repetition and perfection, in directing her preference to them, and making them emerge and survive amid the crowd of similar sounds. But all the initiative belongs to her. The same is true of her gestures. For many months she has spontaneously attempted all kinds of movements of her arms, the bending of the hands over the wrist, the bringing together of the hands, etc. Then after being shown the way, and with repeated trials, she has learned to clap her hands to the sound bravo, and to turn her hands regularly to the strain au bois Joliette, etc. Example, instruction and education are only directing channels, the source is higher. To be sure of this it is enough to listen for a while to her twitter. Its flexibility is surprising. I am persuaded that all the shades of emotion, — wonder, joy, wilfulness and sadness,—are expressed by differences of tone; in this she equals or even surpasses a grown-up person. If I compare her to animals, even to those most gifted in this respect (the dog, the parrot, singing-birds), I find that with a less extended gamut of sound, she far surpasses them in the delicacy and abundance of her expressive intonations. Delicacy of impressions and delicacy of expressions are, in fact, the distinctive characteristics of man among animals, and as I have shown (De l'Intelligence I. b. i.) are the source in him of language and of general ideas; he is among them what a great and fine poet—Heine or Shakespeare—would be among workmen and peasants; in a word, man is sensible of innumerable shades, or rather of a whole order of shades which escape them.

The same thing is seen, besides, in the kind and degree of his curiosity. Any one may observe that from the fifth or sixth month children employ their whole time, for two years and more, in making physical experiments. No animal, not even the cat or dog, makes this constant study of all bodies within its reach; all day long the child of whom I speak (at twelve months), touches, feels, turns round, lets drop, tastes and experiments upon everything she gets hold of; whatever it may be, ball, doll, coral or plaything when once it is sufficiently known it is thrown aside; it is no longer new, she has nothing to learn from it, and has no farther interest in it. It is pure curiosity; physical need, greediness count for nothing in the case; it seems as if already in her little brain every
group of perceptions was tending to complete itself, as in that of a child who makes use of language.

As yet she attaches no meaning to any word she utters, but there are two or three words to which she attaches meaning when she hears them. She sees her grandfather every day, and a chalk portrait of him, much smaller than life, but a very good likeness, has been often shown her. From about ten months, when asked "Where is grandfather?" she turns to this portrait and laughs. Before the portrait of her grandmother, not so good a likeness, she makes no such gesture, and gives no sign of intelligence. From eleven months when asked "Where is mamma?" she turns towards her mother, and she does the same for her father. I should not venture to say that these three actions surpass the intelligence of animals. A little dog, here, understands as well when it hears the word, sugar; it comes from the other end of the garden to get a bit. There is nothing more in this than an association, for the dog, between a sound and some sensation of taste, for the child between a sound and the form of an individual face perceived; the object denoted by the sound has not as yet a general character. However, I believe that the step was made at twelve months; here is a fact decisive in my opinion. This winter she was carried every day to her grandmother’s, who often showed her a painted copy by Luini of the Infant Jesus naked, saying at the same time "there’s bebè." A week ago, in another room, when she was asked "where’s bebè?" meaning herself, she turned at once to the pictures and engravings that happened to be there. Bèbè has then a general signification for her, namely, whatever she thinks is common to all pictures and engravings of figures and landscapes; that is to say, if I am not mistaken, something variegated in a shining frame. In fact, it is clear that the objects painted or drawn in the frame are as Greek to her; on the other hand, the bright square enclosing any representation must have struck her. This is her first general word. The meaning that she gives it is not what we give it, but it is the only better fitted for showing the original work of infantile intelligence. For if we supplied the word, we did not supply the meaning; the general character which we wished to make the child catch, is not that which she has chosen. She caught another, suited to her mental state, for which we have no precise word.

(Fourteen months and three weeks.) The acquisitions of the last six weeks have been considerable; she understands several more words besides bebè, and there are five or six that she uses attaching meaning to them. To the simple warbling, which was nothing but a succession of vocal gestures, the beginnings of intentional and determinate language have succeeded. The principal words she at present utters, are papa, mama, tète (nurse) oua-oua (dog), ko-ko (chicken), dada (horse, or carriage), mia (cat, puse), kaka and tem; the two first were
papa and tem, this last word very curious, and worth the attention of the observer. Papa was pronounced for more than a fortnight unintentionally and without meaning, as a mere twitter, an easy and amusing articulation. It was later that the association between the word and the image, or perception of the object was fixed, that the image or perception of her father called to her lips the sound papa, that the word uttered by another definitely and regularly called up in her the remembrance, image, and expectation of and search for her father. There was an insensible transition from the one state to the other, which it is difficult to unravel. The first state still returns at certain times though the second is established; she still sometimes plays with the sound, though she understands its meaning. This is seen in her later words, for instance, in the word kaka. To the great displeasure of her mother, she still often repeats this ten times in succession, without purpose or meaning, as an interesting vocal exercise, and to exercise a new faculty; but she often also says it with a purpose when there is occasion. Further, it is plain that she has changed or enlarged its meaning, as with the word bébé; for instance, yesterday in the garden, seeing two little wet places left by the watering-pot on the gravel, she said her word with an evident meaning; she meant by it whatever wets.

She makes imitative sounds with great ease. She has seen and heard chickens, and repeats koko, much more exactly than we can do, with the guttural intonations of the creatures themselves. This is only a faculty of the throat; there is another much more striking, which is the specially human gift, and which shows itself in twenty ways. I mean the aptitude for seizing analogies—the source of general ideas and of language. She was shown birds two inches long, painted red and blue on the walls of a room, and was told once “there are kokos.” She was at once sensible of the resemblance, and for half a day her great pleasure was to be carried along the walls of the room crying out koko! with joy at each fresh bird. No dog or parrot would have done as much; in my opinion, we come here on the essence of language. Other analogies are seized with the same ease. She was in the habit of seeing a little black dog belonging to the house, which often barks, and it was to it she first learned to apply the word oua-oua. Very quickly, and with very little help, she applied it to dogs, of all shapes and kinds that she saw in the streets, and then, what is still more remarkable, to the bronze dogs near the stair-case. Better still, the day before yesterday, when she saw a goat a month old that bleated, she said oua-oua, calling it by the name of the dog, which it is much like in form, and not by that of the horse which is too big, or of the cat which has quite a different gait. This is the distinctive trait of man; two successive impressions, though very unlike, yet leave a common residue, which is a distinct impression, solicitation, impulse, of which the final effect is some expression invented or suggested; that is to say, some gesture, cry, articulation, name.
I now come to the word *tem*, one of the most remarkable, and one of the first she uttered. All the others were probably attributives, and those who heard them had no difficulty in understanding them; this is probably a demonstrative word; and as there was no other into which it could be translated, it took several weeks to make out its meaning. At first, and for more than a fortnight, the child uttered the word *tem*, as she did the word *papa*, without giving it a precise meaning, like a simple twitter. She made a dental articulation ending with a labial articulation, and was amused by it. Little by little she associated this word with a distinct intention; it now signifies for her, *give, take, look*; in fact, she says it very decidedly several times together, in an urgent fashion, sometimes that she may have some new object that she sees, sometimes to get us to take it, sometimes to draw attention to herself. All these meanings are mixed up in the word *tem*. Perhaps it comes from the word *tiens* that is often used to her, and with something of the same meaning. But it seems to me rather a word that she has created spontaneously, a sympathetic articulation that she herself has found in harmony with all fixed and distinct intention, and which, consequently, is associated with her principal fixed and distinct intentions, which at present are desires to take, to have, to make others take, to look, to make others look. In this case, it is a *natural vocal gesture*, not learned, and at the same time imperative and demonstrative, since it expresses both command and the presence of the object to which the command refers; the dental and the labial *m* united in a short, dry, and quickly stifled sound, correspond very well without convention, and by their nature alone, to this start of attention, to this sharp and decided outbreak of volition. This origin is the more probable because other and later words, of which we shall presently speak, are evidently the work, not of imitation but of invention.

(From the 15th to the 17th month.) Great progress. She has learned to walk, and even to run, and is firm on her little legs. We see her gaining ideas every day, and she understands many phrases, for instance: "*bring the ball*," "*come to papa's knee*," "*go down*," "*come here*," etc. She begins to distinguish the tone of displeasure from that of satisfaction, and leaves off doing what is forbidden her with a grave face and voice; she often wants to be kissed, holding up her face and saying in a coaxing voice, *papa* or *mama*, — but she has learned or invented very few new words. The chief are *Pa* (Paul), *Babert* (Gilbert), *bêê* (baby), *bêê* (goat), *cola* (chocolate) *oua-oua* (anything good to eat), *ham* (eat, I want to eat). There are a good many others that she understands but cannot say, — for instance, *grand-père* and *grand-mère*, — her vocal organs having been too little exercised to produce all the sounds that she knows, and to which she attaches meaning. *Cola* (chocolate) is one of the first sweetmeats that was given her, and it is the one she likes the best. She went
every day to her grandmother's, who would give her a lozenge. She knows the box very well, and keeps on pointing to it to have it opened. Of herself and without, or rather in spite of us, she has extended the meaning of the word and applies it now to anything sweet; she says cola when sugar, a tart, a grape, a peach, or a fig is given her. We have already had several examples of this spontaneous generalization; it was easy in this instance, for the tastes of chocolate, of the grape, of the peach, etc., agree in this,—that being all pleasant they provoke the same desire, that of experiencing once more the agreeable sensation. So distinct a desire or impulse easily leads to a movement of the head, a gesture of the hand, an expression, and consequently to a word.

**Bébé.** We have seen the strange signification that she at first gave to this word; little by little she came nearer to the usual meaning. Other children were pointed out to her as bébés, and she was herself called by the name, and now answers to it. Further, when put down before a very low mirror and shown her face reflected in it, she was told "that's bébé," and she now goes alone to the mirror and says bébé, laughing when she sees herself.

Starting from this she has extended the meaning of the word, and calls bébés all little figures,—for instance, some half-size plaster statues which are on the stair-case, and the figures of men and women in small pictures and prints. Once more, education produced an unexpected effect upon her; the general character grasped by the child is not what we intended; we taught her the sound, she has invented the sense.

**Ham** (eat, I want to eat). Here both sound and sense were invented. The sound was first heard in her fourteenth month. For several weeks I thought it no more than one of her warblings, but at last I found that it was always produced without fail in the presence of food. The child now never omits to make it when she is hungry or thirsty, all the more that she sees we understand it, and that by this articulation she gets something to eat or drink.

On listening attentively and attempting to reproduce it, we perceive that it is the natural vocal gesture of a person snapping up anything; it begins with a guttural aspirate like a bark, and ends with the closing of the lips as if food were seized and swallowed. A man among savages would do just the same, if with tied hands, and solely dependent for expression on his vocal organs, he wished to say that he wanted food. Little by little the intensity and peculiarity of the original pronunciation were lessened; we had repeated her word but in a milder form; consequently she left off making so much of the guttural and labial parts, and the intermediate parts came to the front; instead of Ham she says om, and now we generally use the word as she does. Originality and invention are so strong in a child, that if it learns our language from us we learn it from the child.

**Oua-oua.** It is only for the last three weeks (the end of her
sixteenth month) that she has used this word in the sense of something good to eat. It was some time before we understood it, for she has long used it, and still uses it, besides, in the sense of dog. A barking in the street never fails to call forth this word in the sense of dog, uttered with the lively joy of a discovery. In the new sense the sound has oscillated between va-va and oua-oua. Very likely the sound that I write oua-oua is double to her according to the double meaning she attaches to it, but my ear cannot catch the difference; the senses of children, much less blunted than ours, perceive delicate shades that we no longer distinguish. In any case, on seeing at table a dish she wishes for, she says oua-oua several times in succession, and she uses the same word when, having eaten some of it, she wishes for more; but it is always in presence of a dish and to point out something eatable. By this the word is distinguished from ou, which she only uses to make known her want of food, without specifying any particular thing. Thus, when in the garden she hears the dinner-bell she says ou, and not oua-oua; on the other hand, at table before a cutlet, she says oua-oua much oftener than ou.

For the last two months, on the other hand, she has left off using the word tem (give, take, look), of which I spoke above, and I do not think she has replaced it by another. This is no doubt because we did not choose to learn it, for it did not correspond to any one of our ideas, but combined three that are quite distinct; we did not use it with her, and therefore she left off using it herself.

On summing up the facts I have just related we arrive at the following conclusions, which observers should test by observations made on other children. At first a child cries and uses its vocal organs, in the same way as its limbs, spontaneously and by reflex action. Spontaneously and from mere pleasure of action it then uses its vocal organs in the same way as its limbs, and acquires the complete use of it by trial and error. From inarticulate it thus passes to articulate sounds. The variety of intonation that it acquires shows in it a peculiar delicacy of impression and expression. By this delicacy it is capable of general ideas. We only help it to catch them by the suggestion of our words. It attaches to them ideas that we do not expect, and spontaneously generalizes outside and beyond our limits. At times it invents not only the meaning of the word, but the word itself. Several vocabularies may succeed one another in its mind, by the obliteration of old words, replaced by new ones. Many meanings may be given in succession to the same word, which remains unchanged. Many of the words invented are natural vocal gestures. In short, it learns a ready-made language as a true musician learns counterpoint or a true poet prosody; it is an original genius, adapting itself to a form constructed bit by bit by a succession of original geniuses; if language were wanting, the child would recover it little by little, or would discover an equivalent.
These observations were interrupted by the calamities of the year 1870. The following notes may help to determine the mental state of a child; in many respects it is that of primitive peoples at the poetical and mythological stage. A jet of water, that the child saw under the window for three months, threw her every day into new transports of joy, as did also the river under a bridge; it was evident that sparkling running water seemed to her to be of extraordinary beauty. "L'eau, l'eau!" she goes on exclaiming (twenty months). A little later (two and a half years) she was very much struck by the sight of the moon. She wanted to see it every evening; when she saw it through the window panes there were cries of joy; when she walked it seemed to her that it walked too, and this discovery charmed her. As the moon, according to the hour, appeared in different places,—now in front of the house, now behind it,—she cried out "Another moon, another moon!"

One evening (three years) on enquiring for the moon, and being told that it had set (qu'elle est allée se coucher) she replies "But where's the moon's bonne?" All this closely resembles the emotions and conjectures of primitive peoples, their lively and deep admiration for great natural objects, the power that analogy, language and metaphor exercise over them, leading to solar and lunar myths, etc. If we admit that such a state of mind was universal at any time, we could at once divine the worship and legends that would be formed. They would be those of the Vedas, of the Edda, and even of Homer. If we speak to her of an object at a little distance, but that she can clearly represent to herself from having seen it, or others like it, her first question always is, "What does it say?" "What does the rabbit say?" "What does the bird say?" "What does the horse say?" "What does the big tree say?"

Animal or tree, she immediately treats it as a person, and wants to know its thoughts and words; that is what she cares about; by spontaneous induction she imagines it like herself, like us; she humanises it. This disposition is found among primitive peoples, the stronger the more primitive they are; in the Edda, especially in the Mabinogion, animals have also the gift of speech; the eagle, the stag, and the salmon, are old and experienced sages, who remember bygone events and instruct man.

It takes much time and many steps for a child to arrive at ideas which to us seem simple. When her dolls had their heads broken she was told they were dead. One day her grandmother said to her, "I am old, I shall not be always with you, I shall die." "Then shall you have your head broken?" She repeated this idea several times and still (three years and a month) with her "to be dead" is to have the head broken. Day before yesterday, a magpie, killed by the gardener, was hung by one foot at the end of a stick, like a fan; she was told that the magpie was dead and she wished to see it. "What is the magpie doing?" "It is doing nothing, it can't move, it is dead." "Ah!" For the first time the idea of final
immobility entered her head. Suppose a people to stop short of this idea and not define death otherwise; the other world would be to it the sheol of the Hebrews, the place where the immovable dead live a vague, almost extinct life. Yesterday means to her in the past, and to-morrow in the future, neither of these words denoting to her mind a precise day in relation to today, either preceding or following it. This is another example of too extended a meaning which must be narrowed. There is hardly a word used by children which has not to undergo this operation. Like primitive peoples they are inclined to general and wide ideas: linguists tell us that such is the character of roots, and consequently of the first conceptions, as they are found in the most ancient documents, especially in the Rig-veda. Speaking generally, the child presents in a passing state the mental characteristics that are found in a fixed state in primitive civilizations; very much as the human embryo presents in a passing state the physical characteristics that are found in a fixed state in the classes of inferior animals.

This lively paper having been published in Mind, was immediately followed by some observations of much earlier date, (but later than those of Mr. Alcott) which had been recorded by the great naturalist, Darwin. Mr. Darwin called his paper (published in July, 1877),

A BIOGRAPHICAL SKETCH OF AN INFANT.

BY CHARLES DARWIN.

M. Taine's very interesting account of the mental development of an infant, translated in the last number of Mind (p. 252), has led me to look over a diary which I kept 37 years ago, with respect to one of my own infants. I had excellent opportunities for close observation, and wrote down at once whatever was observed. My chief object was expression, and my notes were used in my book on this subject; but as I attended to some other points, my observations may possibly possess some little interest in comparison with those by M. Taine, and with others which hereafter, no doubt, will be made. I feel sure, from what I have seen with my own infants, that the period of development of the several faculties will be found to differ considerably in different infants.

During the first seven days various reflex actions, namely sneezing, yawning, stretching, and of course sucking and screaming, were well performed by my infant. On the seventh day, I touched the naked sole of his foot with a bit of paper, and he jerked it away, curling at the same time his toes, like a much older child when tickled. The perfection of these reflex movements shows that the extreme imperfection of the voluntary is not due to the
state of the muscles, or of the co-ordinating centres, but to that of the seat of the will. At this time, though so early, it seemed clear to me that a warm soft hand applied to his face excited a wish to suck. This must be considered as a reflex or an instinctive action, for it is impossible to believe that experience and association with the touch of the mother's breast could so soon have come into play. During the first fortnight he often started on hearing any sudden sound, and blinked his eyes. The same fact was observed with some of my other infants within the first fortnight. Once, when he was 66 days old I happened to sneeze, and he started violently, looked frightened, and cried rather badly; for an hour afterwards he was in a state which would be called nervous in an older person, for every slight noise made him start. A few days before this same date, he first started at an object suddenly seen; but for a long time afterwards sounds made him start and wink his eyes much more frequently than did sight; thus when 114 days old, I shook a pasteboard box with comfits in it near his face and he started, whilst the same box when empty, or any other object shaken as near or much nearer to his face produced no effect.

We may infer from these several facts that the winking of the eyes, which manifestly serves to protect them, had not been acquired through experience. Although so sensitive to sound in a general way, he was not able, even when 124 days old, easily to recognize whence a sound proceeded, so as to direct his eyes to the source.

With respect to vision, his eyes were fixed on a candle as early as the 9th day, and up to the 45th nothing else seemed thus to fix them; but on the 49th day his attention was attracted by a bright colored tassel, as was shown by his eyes becoming fixed and the movements of his arms ceasing. It was surprising how slowly he acquired the power of following with his eyes an object if swinging at all rapidly; for he could not do this well when seven and a half months old. At the age of 32 days he perceived his mother's bosom when three or four inches from it, as was shown by the protrusion of his lips and his eyes becoming fixed; but I much doubt whether this had any connection with vision; he certainly had not touched the bosom.

Whether he was guided by smell or the sensation of warmth or through association with the position in which he was held, I do not at all know.

The movements of his limbs and body were for a long time vague and purposeless, and usually performed in a jerking manner; but there was one exception to this rule, namely, that from a very early period, certainly long before he was 40 days old, he took the sucking-bottle (with which he was partly fed) in his right hand, whether he was held on the left or right arm of his nurse, and he would not take it in his left hand until a week later, although I tried to make him do so; so that the right hand was a week in advance of the left. Yet this infant afterwards proved to be left-handed, the tendency being no doubt inherited, his grandfather, mother and
a brother having been, or being, left-handed. When between 80 and 90 days old, he drew all sorts of objects into his mouth, and in two or three weeks' time could do this with some skill; but he often first touched his nose with the object and then dragged it down to his mouth. After grasping my finger and drawing it to his mouth, his own hand prevented him from sucking it; but on the 114th day, after acting in this manner he slipped his own hand down so that he could get the end of my finger into his mouth. This action was repeated several times, and evidently was not a chance but a rational one. The intentional movements of the hands and arms were thus much in advance of those of the body and legs; though the purposeless movements of the latter were from a very early period usually alternate as in the act of walking. When four months old, he often looked intently at his own hands and other objects close to him, and in so doing the eyes were turned much inwards, so that he often squinted frightfully. In a fortnight after this time (i.e., 132 days old) I observed that if an object was brought as near to his own face as his own hands were, he tried to seize it, but often failed; and he did not try to do so in regard to more distant objects. I think there can be little doubt that the convergence of his eyes gave him the clue and excited him to move his arms. Although this infant thus began to use his hands at an early period, he showed no special aptitude in this respect: for when he was 2 years and 4 months old, he held pencils, pens, and other objects far less neatly and efficiently than did his sister who was then only 14 months old, and who showed great inherent aptitude in handling anything.

Anger. It was difficult to decide at how early an age anger was felt; on his eighth day he frowned and wrinkled the skin around his eyes before a crying fit, but this may have been due to pain or distress, and not to anger. When about ten weeks old, he was given some rather cold milk, and he kept a slight frown on his forehead all the time he was sucking, so that he looked like a grown-up person made cross from being compelled to do something which he did not like. When nearly four months old, and perhaps much earlier, there could be no doubt, from the manner in which the blood gushed into his whole scalp and face, that he easily got into a violent passion. A small cause sufficed; thus, when a little over seven months old, he screamed with rage because a lemon slipped away and he could not seize it with his hands. When eleven months old, if a wrong plaything was given him, he would push it away and beat it; I presume the beating was an instinctive sign of anger, like the snapping of the jaws of a young crocodile just out of the egg, and not that he imagined that he could hurt the plaything. When two years and three months old, he became a great adept at throwing books, or sticks, etc., at any one who offended him; and so it was with some of my other sons. On the other hand, I could never see a trace of such aptitude in
my infant daughters; and this makes me think that a tendency to throw objects is inherited by boys.

Fear. This feeling is probably one of the earliest which is experienced by infants, as shown by their starting at any sudden sound when only a few weeks old, followed by crying. Before the present one was four and a half months old I had been accustomed to make, close to him, many strange and loud noises, which were all taken as excellent jokes, but at this period I one day made a loud snoring noise which I had never done before; he instantly looked grave, and then burst out crying. Two or three days after I made, through forgetfulness, the same noise with the same result. About the same time (viz., on the 137th day), I approached with my back towards him and then stood motionless; he looked very grave and much surprised, and would soon have cried, had I not turned round; then his face relaxed into a smile. It is well known how intensely older children suffer from vague and undefined fears, as from the dark, or in passing an obscure corner in a large hall, etc. I may give as an instance that I took the child in question, when two and a quarter years old, to the Zoological Gardens, and he enjoyed looking at all the animals which were like those he knew, such as deer, antelope, etc., and all the birds, even the ostriches, but was much alarmed at the various larger animals in cages. He often said afterwards that he wished to go again, but not to see "the beasts in houses;" and we could in no manner account for this fear. May we not suspect that the vague but very real fears of children, which are quite independent of experience, are the inherited effects of real dangers and abject superstitions during ancient savage times? It is quite conformable with what we know of the transmission of formerly well-developed characters, that they should appear at an early period of life, and afterwards disappear.

Pleasurable Sensations. It may be presumed that infants feel pleasure while sucking, and the expression of their swimming eyes seems to show that this is the case. This infant smiled when 45 days, a second infant when 46 days old; and these were true smiles, indicative of pleasure, for their eyes brightened and their eyelids slightly closed. The smiles arose chiefly when looking at their mother, and were, therefore, probably of mental origin, but this infant often smiled then, and for some time afterwards, from some inward pleasurable feeling, for nothing was happening which could have in any way excited or amused him. When 110 days old, he was exceedingly amused by a pinafore being thrown over his face, and then suddenly withdrawn; and so he was when I suddenly uncovered my own face and approached his. He then uttered a little noise which was an incipient laugh. Here, surprise was the chief cause of the amusement, as is the case to a large extent with the wit of grown-up persons. I believe that for three or four weeks before the time when he was amused by the face
being suddenly uncovered, he received a little pinch on his nose and cheeks as a good joke. I was at first surprised at humor being appreciated by an infant only a little above three months old, but we should remember how very early puppies and kittens begin to play. When four months old, he showed in an unmistakable manner that he liked to hear the piano-forte played; so that here, apparently, was the earliest sign of an aesthetic feeling, unless the attraction of bright colors, which was exhibited much earlier, may be so considered.

Affection. This probably arose very early in life, if we may judge by his smiling at those who had charge of him, when under two months old; though I had no distinct evidence of his distinguishing and recognizing anyone, until he was nearly four months old. When nearly five months old, he plainly showed his wish to go to his nurse. But he did not spontaneously exhibit affection by overt acts until a little above a year old, namely, by kissing several times his nurse who had been absent a short time. With respect to the allied feeling of sympathy, this was clearly shown at six months and eleven days by his melancholy face, with the corner of his mouth well depressed, when his nurse pretended to cry. Jealously was plainly exhibited when I fondled a large doll, and when I weighed his infant sister, he being then fifteen and a half months old. Seeing how strong a feeling jealousy is in dogs, it would probably be exhibited by infants at an earlier age than that just specified, if they were tried in a fitting manner.

Association of Ideas, Reason, etc. The first action which exhibited, as far as I observed, a kind of practical reasoning, has already been noticed, namely, the slipping his hand down my finger so as to get the end of it in his mouth; and this happened on the 114th day. When four and a half months old, he repeatedly smiled at my image and at his own in mirror, and no doubt mistook them for real objects, but he showed sense in being evidently surprised at my voice coming from behind him. Like all infants he much enjoyed thus looking at himself, and in less than two months perfectly understood that it was an image, for if I made quite silently any odd grimace, he would suddenly turn round to look at me. He was, however, puzzled at the age of seven months, when being put out of doors, he saw me on the inside of a large plate-glass window, and seemed to doubt whether or not it was an image. Another of my infants, a little girl, when exactly a year old, was not nearly so acute, and seemed quite perplexed at the image of a person in a mirror approaching her from behind. The higher apes which I tried with a small looking glass, behaved differently; they placed their hands behind the glass, and in doing so showed their sense; but far from taking pleasure in looking at themselves, they got angry and would look no more.

When five months old, associated ideas, arising independently of any instruction, became fixed in his mind; thus, as soon as his hat was taken off, he immediately searched for his cap and when I put it on, he smiled and held it in his hand. He was thus able to fasten together ideas connected with the act of wearing a hat. In like manner, theapa of the dog who, when he wished to be taken in his master's arms, would insistently show him how they fitted. The ear of a dog, pulling at his master's hair, is a sign that he wants to be taken in his arms. The affection of the dog is thus expressed by a sign which is exactly the same as that of the infant, and which the infant must have been able to understand and associate. It is evident that the comprehension of ideas is much less distinct in the dog than in the infant, and that the infant is much more capable of associating ideas than the dog. The dog has been long trained to understand the sign of the finger, and a finger pointed at him means that he is to come to me. To the dog, therefore, the finger is understood as a sign, and his associated ideas are consequently different from those of the infant. The infant perceives that the finger is a sign, and his associated ideas are consequently different from those of the dog. The infant perceives that the finger is a sign, and his associated ideas are consequently different from those of the dog.
and cloak were put on, he was very cross if he was not immediately taken out of doors. When exactly seven months old, he made the great step of associating his nurse with her name, so that if I called it out he would turn round and look for her. Another infant used to amuse himself by shaking his head laterally; we praised and imitated him, saying, “Shake your head,” and when he was seven months old, he would sometimes do so on being told, without any other guide. During the next four months, the former infant associated many things and actions with words; thus, when asked for a kiss, he would protrude his lips and keep still, would shake his head and say in a scolding voice, “ah,” to the coal-box, or a little spit water, etc., which he had been taught to consider as dirty. I may add that, when a few days under nine months old, he associated his own name with his image in the looking-glass, and when called by name would turn towards the glass, even when at some distance from it. When a few days over nine months, he learnt spontaneously that a hand, or other object, causing a shadow to fall on the wall in front of him, was to be looked for behind. Whilst under a year old, it was sufficient to repeat two or three times at intervals any short sentence to fix firmly in his mind some associated idea. In the infant described by M. Taine, the age at which ideas readily became associated, seems to have been considerably later, unless, indeed, the earlier cases were overlooked. The facility with which associated ideas, due to instruction and others, spontaneously arising, were acquired, seemed to me by far the most strongly marked of all the distinctions between the mind of an infant and that of the cleverest full-grown dog that I have ever known. What a contrast does the mind of an infant present to that of a pike, described by Prof. Möbius, who during three whole months, dashed and stunned himself against a glass partition which separated him from some minnows; and, when, after at last learning that he could not attack them with impunity, he was placed in the same aquarium with these same minnows, then in a persistent and senseless manner, he would not attack them.

Curiosity, as M. Taine remarks, is displayed at an early age by infants, and is highly important in the development of their minds; but I made no special observation on this head. Imitation likewise comes in play. When one infant was only four months old, I thought he tried to imitate sounds; but I may have deceived myself, for I was not thoroughly convinced that he did so until he was ten months old. At the age of 11½ months, he could readily imitate all sorts of actions, such as shaking his head and saying “ah,” to any dirty object, or by carefully and slowly putting his forefinger in the middle of the palm of the other hand, to the childish rhyme of “pat it, and pat it, and mark it with T.” It was amusing to behold his pleased expression after successfully performing any such accomplishment. I do not know whether it
is worth mentioning, as showing something about the strength of memory in a young child, that this one, when three years and twenty-three days old, on being shown an engraving of his grand-fathe, whom he had not seen for exactly six months, instantly recognized him and mentioned a whole string of events which had occurred whilst visiting him, and which certainly had never been mentioned in the interval.

Moral Sense. The first sign of moral sense was noticed at the age of thirteen months; I said, "Doddy" (his nickname), "won't give poor papa a kiss; naughty Doddy!" These words, without any doubt, made him feel slightly uncomfortable; and, at last, when I had returned to my chair, he protruded his lips as a sign that he was ready to kiss me; and he then shook his head in an angry manner until I came and received his kiss. Nearly the same little scene occurred in a few days, and the reconciliation seemed to give him so much satisfaction, that several times afterwards he pretended to be angry and slapped me, and then insisted on giving me a kiss. So that, here we have a touch of the dramatic art, which is so strongly pronounced in most young children. About this time it became easy to work on his feelings, and make him do whatever was wanted. When two years and three months old, he gave his last bit of gingerbread to his little sister, and then cried out with high self-approbation, "Oh, kind Doddy, kind Doddy." Two months later, he became extremely sensitive to ridicule, and was so suspicious that he often thought people who were laughing and talking together were laughing at him. A little later (two years and seven and a half months old), I met him coming out of the dining-room with his eyes unnaturally bright, and an odd, unnatural or affected manner, so that I went into the room to see who was there, and found he had been taking pounded sugar, which he had been told not to do. As he had never been in any way punished, his odd manner certainly was not due to fear, and I suppose it was pleasurable excitement struggling with conscience. A fortnight afterwards, I met him coming out of the same room, and he was eyeing his pinafore, which was carefully rolled up; and again his manner was so odd that I determined to see what was within his pinafore, notwithstanding that he said there was nothing, and repeatedly commanded me to "go away," and I found it stained with pickle juice; so that here was carefully planned deceit. As this child was educated solely by working on his good feelings, he soon became as truthful, open, and tender as any one could desire.

Unconsciousness, Shyness. No one can have attended to very young children without being struck at the unabashed manner with which they fixedly stare without blinking their eyes at a new face; an old person can look in this manner only at an animal or intimate object. This, I believe, is the result of young children not thinking in the least about themselves, and therefore not being in
AN ENGLISH CHILD.—MR. DARWIN.

the least shy, though they are sometimes afraid of strangers. I saw the first symptoms of shyness in my child when nearly two weeks and three months old; this was shown towards myself, after an absence of ten days from home, chiefly by his eyes being slightly averted from mine; but he soon came and sat on my knee and kissed me, and all trace of shyness disappeared.

Means of Communication. The noise of crying or rather of squalling, as no tears are shed for a long time, is of course uttered in an instinctive manner, but serves to show that there is suffering. After a time the sound differs according to the cause, such as hunger or pain. This was noticed when this infant was eleven weeks old, and I believe at an earlier age in another infant. Moreover, he appeared soon to learn to begin to cry voluntarily, or to wrinkle his face in a manner proper to the occasion, so as to show that he wanted something. When 46 days old, he first made little noises without any meaning to please himself, and these soon became varied. An incipient laugh was observed on the 113th day, but much earlier in another infant. At this date I thought, as already remarked, that he began to try to imitate sounds, as he certainly did at a considerably later period. When five months and a half old, he uttered an articulate sound “da,” but without any meaning attached to it. When a little over a year old, he used gestures to explain his wishes; to give a simple instance, he picked up a bit of paper and, giving it to me, pointed to the fire, as he had often seen and liked to see paper burnt. At exactly the age of a year, he made a great step of inventing a word for food, namely, mum, but what led him to it I did not discover. And now instead of beginning to cry when he was hungry, he used this word in a demonstrative manner or as a verb, implying “Give me food.” This word, therefore, corresponds with hom, as used by M. Taine’s infant at the later age of fourteen months. But he also used mum as a substantive of wide signification; thus he called sugar shu-mum, and a little later after he had learned the word “black,” he called liquorice black shu-mum,—black-sugar-food.

I was particularly struck with the fact that when asking for food by the word mum he gave to it (I will copy the words written down at the time) “a most strongly marked interrogatory sound at the end.” He also gave to “ah,” which he chiefly used at first when recognizing any person, or his own image in a mirror, an exclamatory sound, such as we employ when surprised. I remark in my notes that the use of these intonations seemed to have arisen instinctively, and I regret that more observations were not made on this subject. I record, however, in my notes, that at a rather later period, when between 18 and 21 months old, he modulated his voice in refusing peremptorily to do anything by a defiant whine, so as to express “That I won’t;” and again his humph of assent expressed “Yes, to be sure.” M. Taine also
Almost for phique by his infant 1881.

Communication, by instinctive cries, which after a time are modified, in part unconscious, and in part, as I believe, voluntarily, as a means of communication, by the unconscious expression of the features, by gestures, and in a marked manner by different intonations, lastly by words of a general nature invented by himself, then of a more precise nature imitated from that which he hears; and these latter are acquired at a wonderfully quick rate. An infant understands to a certain extent, and as I believe at a very early period, the meaning or feelings of those who tend him, by the expression of their features. There can hardly be a doubt about this with respect to smiling; and it seemed to me that the infant whose biography I have here given understood a compassionate expression at a little over five months old. When 6 months and 11 days old, he certainly showed sympathy with his nurse on her pretending to cry. When pleased after performing some new accomplishment, being almost a year old, he evidently studied the expression of those around him. It was probably due to differences of expression, and not merely of the form of the features, that certain faces clearly pleased him much more than others, even at so early an age as a little over six months. Before he was a year old, he understood intonations and gestures, as well as several words and short sentences. He understood one word, namely, his nurse's name, exactly five months before he invented his first word mum; and this is what might have been expected, as we know that the lower animals easily learn to understand spoken words.

These papers of M. Taine and Mr. Darwin having appeared in Mind in 1877, (M. Taine's first came out in the Revue Philosophique for January, 1876,) were followed by several contributions of more or less value, one of which we reprint below from Mind, January, 1881.
NOTES ON AN INFANT.

The following notes, based on Mr. Darwin's most interesting and accurate report of the unfolding of the senses, emotions, &c., in one of his own children (Mind VII.), are offered as a small contribution to this interesting subject, on which observations, so constantly at hand, ought to be more often carefully made. They concern the writer's infant son, and extend from the moment of birth through a period of nine months.

Sucking.—The first thing the child did when left alone a few minutes after birth, was to suck the blanket in which he was wrapped.

When hungry, he would cram his hands into his mouth with varying precision, and suck them hard. This was observed ever since birth, and seemed to be adopted without hesitation as a means for temporarily appeasing hunger.

At 4 days old he pushed away his mother's breast when satisfied. The touch of a warm hand did not induce sucking movements.

No practice seemed to be required for directing the hands to the mouth.

Sneezing was always accompanied by violent movements of all the limbs, the thighs being flexed on the abdomen, the forearms bent, and the elbows thrust forward.

The purpose of the flexion of the thighs on the belly was probably partly to relieve the tension of the suddenly contracted abdominal muscles, but the movements of the arms (and partly those of the legs also) probably had for their cause the necessity for relief of what is called a "nervous discharge" of great amplitude, such as a sneeze.

Crying was performed at first without any squaring of the mouth. The sound can be exactly expressed by "nga" as pronounced in German. This must have been produced by closing the faucets by the contact of the pillars of the faucets and the soft palate, so as to send all the sound through the nose; the vowel sound being then produced by separating the soft palate and pillars of the faucets and allowing the sound to come through the mouth.

The child appeared to cry at first for three reasons: (1) from a feeling of loneliness or fright on awakening from sleep, which was relieved by being taken in the mother's or nurse's arms, or even by a touch; (2) from hunger; (3) from pain. The cries seemed to be all different in character.

Smiling was reported at 6½ weeks, but not certainly observed before the end of the 8th week. It was often accompanied by sucking movements. This shows the association of two pleasurable ideas.

Weeping.—Tears were shed two days before the end of the 14th week.
Seeing.—The eyes were first fixed on a candle when a week old. On the same day; the eyes were fixed on one of the parents for the first time.

Opening of the eyes was accompanied by wrinkling of the skin of the forehead; the wrinkles, being horizontal, were due to the frontalis muscle. They resembled those produced in adults during an effort to open the eyes when tightly closed, either on account of very dazzling light or of a foreign body in the eye; but were probably only necessitated by redundancy of skin, which is very observable in a young child and most young animals. This wrinkling gradually ceased.

The ninth day was the first on which anything like habitual opening of the eyes occurred.

It was not before the 14th day that the child took notice of persons or moving objects.

From the time that he began to use his eyes, bright light gave him much pleasure, and he never blinked except on a change from comparative darkness to bright light; when the moment of this change was past, he would gaze for a long time with much apparent delight and with wide-open eyes at a lamp or at the gas, however bright. This fact makes it unlikely that the frowning mentioned above was due to being dazzled. He was first able to see himself in the glass at 8 weeks old, the experiment having been often used before.

Hearing.—During the first week the child would not start at any noise however sudden, when unaccompanied by vibration of the room or bed. For instance, no notice was taken of hands loudly clapped close to his ear; but slamming of a door made him start. Just the same starting was observed immediately after birth when the scale in which he was being weighed went down with a jerk.

It was very difficult to decide when the child really heard first. At 14 days old he would turn his eyes to his mother when she spoke to him, but even then did not start at sudden noises however loud, unless accompanied by jerks or vibrations; so that the apparent power of hearing his mother’s voice may have depended on his feeling her breath on his face, for it was only when her face was turned towards him while she spoke that he turned his eyes towards her.

In connection with the late appearance of this sense, we must remember that the tympanum at birth is packed with areolar tissue which only gradually becomes absorbed after birth.

Reflex Actions.—Among these may be noticed the spasmodic start which occurred on any jar or vibration, previously noticed, and also the fact that micturation was always or nearly always indicated by a slight shiver.

The slight provocation necessary for producing a convulsion in children is a well-known sign of their great irritability to nervous stimuli.
Exactly at 4 weeks old the child started at sudden noises if unexpected, but would not start twice at the same noise if not excessively loud.

Taste.—The child rejected all things given to him cold, even milk, but would take various things not especially nice (such as cod liver oil) if warm. The temperature seemed to be of more consequence to him than the taste.

Voluntary Movements.—The arms were far more purposive in their movements than the legs from the very first. The movements of the arms from the first were like those of striking with the fists, the fists, however, being only partially clenched.

Walking.—When one day less than 19 weeks old, the trial was made of supporting the child on the floor with the feet just touching the ground, and moving him forward. The movements of the legs were always alternate and purposive, each step being perfectly formed; though the feet were lifted unnecessarily high, there was no hesitation nor irregularity. Only when he was lifted too high for one or other foot to touch the ground was this alternate movement interrupted, the foot which failed to reach the ground making a fresh step. It was obvious that the contact of one foot with the ground was the stimulus for moving forward the other foot.

Attempts at Talking.—From nine months the child distinctly imitated the intonation of the voice when any word or sentence was repeated in the same way several times.

About the 18th week he began to appear to attempt to join in the conversation with a variety of articulate sounds, if talking was going on in the room.

Fear.—The first symptom of fear was noticed at about 9 months. It was excited by an unusual sound in the room, but not in the child's immediate neighborhood; he opened his eyes very wide and burst out crying. The second occasion was at about 10 months, when sound was again the exciting cause; a toy was given him which squeaked on pressure, he burst out crying, and cried whenever it was offered him, but in a short time he got used to it, became very fond of it, and made it squeak himself.

I have one or two remarks to make on Mr. Darwin's paper. He says: "On the 7th day I touched the naked sole of his foot with a bit of paper and he jerked it away, curling at the same time his toes, like a much older child when tickled." Such reflex movements can be provoked in utero, and can be utilized in obstetric operations for distinguishing a hand from a foot, the hand closing on the finger. Kicks can be excited even through the abdominal walls by sudden movements and by direct contact in the way of tickling.

With regard to the words "mum" used by Mr. Darwin's child, and "ham" used by M. Taine's to express food, I would suggest that both were invented subsequently to the use of solid food, for
Mr. Darwin's invented "mum" at twelve months, and M. Taine's invented "ham" at 14 months. Both words seem to be the result of a vowel sound during mastication. Let anyone try to eat or move his mouth as in eating, pronouncing at the same time any vowel sound. He will find that each vowel is closed by the letter "m" which is common to "mum" and "ham." "Mum" is the result of "u" with the mouth first shut, then opened, then shut. "Ham" (probably without the "h" aspirated, especially as an aspirated "h" is too much for the recti abdominis muscles of an infant) is the result of an "a" similarly treated.

That "m" is one of the earliest acquired consonants, appears, from the word "mama."

I would also suggest that the word "mumble," used of a dog growling while gnawing a bone, is probably onomatopoetic, and to be similarly explained. I do not know the etymology of the Latin word "mando."

F. H. Champneys.

A GERMAN CHILD.

[The General Secretary takes occasion to add here some portions of a translation made by Miss Marion Talbot, of Boston, from Professor William Preyer's work on Mind in Infancy, (Die Seele des Kindes) and published in the American bimonthly Education, for January, 1882. The speculative parts of the translation are here omitted, and the special observations of Dr. Preyer on his own child are cited, as a continuation and contrast, in some respects, to the other observations on infants cited in this number of the Journal of Social Science. Dr. Preyer says:]

But little help in developing the notion of the Ego is gained from the first movements of the hands, which the infant puts in his mouth at an early period, and which must give a different sensation from other objects when he sucks them. The fact that my child for months pulled at his hands as if he would tear them apart, and struck at his head when experimenting with his hands, shows how far removed from self-consciousness these movements are. At the end of the first year my child had a predilection for striking hard objects against his teeth, and took delight in grating his teeth. On the four hundred and ninth day, when he was standing in his crib and holding on to the railing, he bit his bare arm so hard that he instantly screamed with pain. The marks of the teeth
could be seen for a long time afterward. The boy did not bite his arm a second time, but later he bit his finger, and inadvertently his tongue.

The same child, who liked to hold a cracker to the mouth of any one he was kindly disposed towards, offered one to his own foot in the same way, and sitting on the floor, held the cracker to his toes, evidently taking pleasure in doing so. This occurred several times in the twenty-third month.

How little the difference between the parts of the body and external objects is recognized even at the end of the first year, follows from some singular experiments which the child tried quite independently. He sat near me at the table, and struck it frequently and quickly with his hands; first soft, then hard, next hard with the right hand alone, and then suddenly hit his mouth with the same hand. After holding his hand to his mouth for a short time, he struck the table again with it and then suddenly struck his head above the ear. This experiment seemed for the first time to impress the child that it was one thing to strike one's self, one's own hard head, and another to strike a foreign hard object (forty-first week). In the thirteenth month the child still hit his head while experimenting with his hand, and seemed astonished at its hardness. In the sixteenth month he was in the habit of pushing and striking the left thumb against the left side of the head, and the right thumb against the right side, while holding the fingers outstretched, which made him open his eyes and caused a singular expression of wonder. This movement is neither imitated nor inherited, but learned from experience. The child without doubt gains experience in a similar way in regard to holding the head, shaking the head, resistance of the body; perhaps, too, management of the head. The objectivity of the finger became known a short time before, when it was involuntarily bitten; for in the fifteenth month the child bit his finger so hard that he cried with pain. Pain is the most powerful master in learning the difference between subjective and objective.

I particularly observed the way in which the child looked at his body, and also at his reflected image. In relation to the first I made the following notes:

Seventeenth week. In grasping movements, which are still imperfect, the gaze is directed partly towards the object, partly towards the hand, especially if it has once grasped correctly.

Eighteenth week. The very attentive observation of the fingers in grasping is remarkable, and should be daily noticed.

Twenty-third week. When the infant, who frequently moves his hands aimlessly about in the air, by chance grasps one with the other, he watches attentively both hands, which are often casually clasped.

Twenty-fourth week. The child fixes his eyes for several minutes upon a glove which he himself holds in his hands, and changes the fingers which grasp it.
OBSERVATIONS

Thirty-second week. The child, while lying on his back, often looks at his legs stretched upright, and more especially at his feet, as if they were something not belonging to him.

Thirty-fifth week. In every possible position the child tries to seize one foot with both hands and put it in his mouth, and frequently succeeds. This apish movement seems to afford him peculiar pleasure.

Thirty-sixth week. The hands and feet are no longer watched so frequently without special cause. His gaze is attracted by other new objects, which he attempts to grasp.

Thirty-ninth week. When in the bath, the child sometimes looks at and touches his skin with evident delight, and sometimes gazes at his legs, which he bends and stretches in every direction.

Fifty-fifth week. The child watches attentively, for a long time, a person who is eating, and follows every movement with his eyes; reaches out towards the person's face, and looks at his own hands after striking his head. He likes to play with other's hands and takes delight in their motions, evidently comparing them with those of his own fingers.

Sixty-second week. He gazes continuously at his own fingers, and plays with them as if he would tear them out. One hand is pressed by the other flat upon the table, so hard as to cause pain, as if it were a strange plaything, and is constantly looked at with an air of wonder.

Thereafter the child's inclination to watch the parts of the body noticeably abated. He knew them by their form, and had gradually learned to distinguish them from extraneous objects as parts of himself; but by no means had he as yet reached the thought, "The hand is mine, what was taken hold of is not," or "The leg belongs to me."

Darwin observed (1840) of one of his sons, that in the fifth month he repeatedly laughed at the reflections of his father and himself in the glass, and thought them real bodies. But he was surprised that his father's voice came from behind.

I made the following observations of my boy:—

In the eleventh week he did not see himself in the mirror. When I knocked against the glass he turned his head in the direction of the sound, but his image did not make the slightest impression upon him.

In the fourteenth and fifteenth weeks he looked at his image with perfect indifference. His glance was directed towards the eyes in the image, without any expression of pleasure or displeasure.

In the sixteenth week the mirror was still either ignored or regarded with indifference.

At the beginning of the seventeenth week, on the one hundred and thirteenth day, the child looked at his image with unmistakable attention, and his countenance wore the same expression with which he was in the habit of gazing at the face of a stranger. It
was evident that he observed himself for the first time, but the impression seemed to awaken neither pleasure nor displeasure. Three days later the child positively laughed at his image.

When I held the child before the mirror again in the twenty-fourth week, he saw my image, became very attentive, and turned suddenly to me, apparently to convince himself that I was near him.

In the twenty-fifth week he for the first time stretched his hand towards the image, thinking he could grasp it.

In the twenty-sixth week it pleased the child to see me in the glass; he turned towards me and compared the original with the image.

In the thirty-fifth week the child reached out towards the image with eagerness and interest, and was astonished when his hand touched the hard, smooth surface.

This continued from the forty-first to the forty-fourth week; the child regularly laughed at his image and tried to seize it.

All these observations were made before a full-length mirror. But in the fifty-seventh week I held a hand-glass close to the child's face. He looked at his image and then put his hand behind the glass, moving it about as if in search of something. He next took the glass himself, looked at it, and touched it on both sides. When I held the glass before him again after several minutes, the same manoeuvres were repeated. This agreed with the observations made by Darwin on anthropoid monkeys, which I have mentioned.

In the fifty-eighth week I showed the child his cabinet photograph under glass in a frame. He turned the picture about like the hand-glass. Although the photograph was much smaller than the reflected image, they seemed to him to be alike. On the same (four hundred and second) day, I again held a hand-glass before the boy, showing him his image; but he obstinately turned away, again like an intelligent animal. Here the incomprehensible in a literal sense was troubling him; but very soon came the insight which the quadruped lacks. In the sixtieth week the child saw his mother in the glass, and when asked, "Where is mamma?" pointed to the image, and then turned laughing to his mother. Whereas the child formerly made cunning mistakes, there is no doubt but that at this age—fourteen months—the original and the image were distinguished as such, and the photograph no longer excited surprise.

Nevertheless, even in the sixty-first week the child tried to touch his image, and licked the glass in which he saw himself, and also in the sixty-sixth week struck it with his hand. In the following week I saw the child making faces for the first time before the glass, and laughing at it. I stood behind him and called him by name. He immediately turned round, although he saw me plainly in the glass. He evidently knew that the voice did not come from the image.
In the sixty-ninth week signs of vanity were perceived; the child frequently took pleasure in watching himself in the glass. If any one placed something on his head and said "pretty," his expression changed and became peculiarly self-satisfied, his eyebrows were lifted and his eyes were dilated.

In the twenty-first month, the child put on a piece of lace or embroidery, let it hang from his shoulders, looked around as it trailed, stepped forward, and then stood still, intent on making new folds in it. Here monkeyish imitation and vanity are mingled.

In the seventeenth month, the child showed a predilection for standing before the glass and making grimaces; these experiments with the mirror were, therefore, discontinued. They point out the transition from the condition in which the infant cannot see clearly, and has no feeling of self, to that of the developed Ego, which consciously distinguishes itself from its own image, as well as from other people and their images. But there is for a long time a certain cloudiness in respect to pointing out objects. In the twenty-first month the child laughed at his image and pointed to it when I asked, "Where is Axel?" and to my image when asked, "Where is papa?" But when questioned seriously, the child turned about with a doubtful air. One evening I placed a large mirror near my child's bed when he was asleep, in such a position that he should look in it immediately on awaking. He saw his image directly after he awoke; appeared greatly astonished by it; stared at it; and when I asked, "Where is Axel?" he pointed, not to himself, but to his image (six hundred and twentieth day). In the thirty-first month it still gave him great pleasure to watch his image, and he laughed at it continuously and heartily.

As is well known, animals conduct themselves quite differently in this respect. A pair of Turkish ducks kept themselves quite apart from other ducks. When the female died, to my astonishment, the drake betook himself to a cellar window in which could be seen his reflection, and stood there daily for hours at a time. He evidently thought his image was his lost companion. A young cat before whom I held a mirror, seemed to take the image for a second cat; for when the mirror was raised, she went behind and around it. Many animals are frightened by their images, and run away.

The discovery of their shadow also causes fear to little children. At first my child showed signs of fear at his shadow, but in the fourth year, took delight in it, and to the question, "Where does the shadow come from?" gave this remarkable answer, "From the sun."
REGISTER

OJr INFANT DEVELOPMENT.

CIRCULAR OF APRIL, 1881.

We have been made familiar with the habits of plants and animals from the careful investigations which have from time to time been published,—the intelligence of animals, even, coming in for a due share of attention. One author alone contributes a book of a thousand pages upon "Mind in the Lower Animals." Recently some educators in this country have been thinking that to study the natural development of a single child is worth more than a Noah's Ark full of animals. Little has been done in this study, at least little has been recorded. It is certain that a great many mothers might contribute observations of their own child's life and development, which would at some future time be invaluable to the psychologist. In this belief the Education Department of the American Social Science Association has issued the accompanying Register, and asks the parents of very young children to interest themselves in the subject,—

1. By recognizing the importance of the study of the youngest infants.

2. By observing the simplest manifestations of their life and movements.

3. By answering fully and carefully the questions asked in the Register.

4. By a careful record of the signs of development during the coming year, each observation to be verified, if possible, by other members of the family.

5. By interesting their friends in the subject and forwarding the results to the Secretary.

6. Above all, by perseverance and exactness in recording these observations.

From the records of many thousand observers in the next few years it is believed that important facts will be gathered of great value to the educator and to the psychologist. A letter from Prof. Preyer, of Jena, Prussia, on the literature of the subject, may be found in No. XIII. of the Journal of Social Science, published by A. Williams & Co., Boston; while the English quarterly Mind has been printing for four or five years past contributions, the more important of which are reprinted in No. XV. of the Journal of Social Science.
The Education Department of the American Social Science Association, early in 1881, issued the accompanying Register, with an explanatory Circular. The same Department Committee would now call the attention of parents to the second issue of the Register of Observations on the development of infants, and beg their continued interest. In pursuing the study of this subject the Committee hope to attain several results:

1. True records of the order of development, and facts illustrating it.
2. More thoughtful attention, by both parents, to the idiosyncrasies in dispositions, and to the needs of each child.
3. The discussion of unsettled questions, such as the inheritance of traits, the development of speech, intelligent consciousness, the influence of food, race, climate, etc.
4. Assistance to parents in the formation of more intelligent and systematic plans of education.

In reply to the query why these questions are asked, and certain others are not, it is proper to say that the form in which the Register is presented only suggests lines of study open to parents. It is hoped that sufficient curiosity and interest will be excited in the subject to tempt divergence from the method here presented. Each observer is therefore invited to broaden the field of observation by suggestions and by original research, and to report the results of investigation to this Committee.

The monographs of Darwin and Taine on this subject are reprinted, as a guide to the manner of proceeding with the work of observation.

Will the observer have the kindness to carefully answer as many as possible of these questions and return this circular before July 15th, 1882, to

MRS. EMILY TALBOT,
Secretary of the Education Department of the American Social Science Association,
66 Marlborough Street, Boston, Mass.
Boston, January 1, 1882.
Register of Physical and Mental Development of

(Give the Baby's full name).............................................................................................
Name and occupation of the father?...............................................................................
Place and time of father's birth?..................................................................................
    "    " mother's " ?....................................................................................................
    "    " baby's " ?......................................................................................................
Is it a first, second or third child?............................................................................... 
Baby's weight at birth? at 3 months? at 6 months? at 1 year?.................................
How fed?......................................................................................................................
Is the baby strong and healthy, or otherwise?.............................................................
At what age did the baby exhibit consciousness, and in what manner?....................

At what age did the baby smile?..................................................................................
    "    " recognize its mother?......................................................................................
    "    " notice its hand?..............................................................................................
    "    " follow a light with its eyes?...........................................................................
    "    " hold up its head?............................................................................................
    "    " sit alone on the floor?.......................................................................................
    "    " creep?.............................................................................................................
    "    " stand by a chair?.............................................................................................
    "    " stand alone?...................................................................................................
    "    " walk alone?....................................................................................................
    "    " hold a plaything when put in its hand?..........................................................
At what age did the baby reach out and take a plaything? 
" " " appear to be right or left handed?  
" " " notice pain, as the prick of a pin?  
" " " show a like or dislike in taste?  
" " " appear sensible to sound?  
" " " notice the light of a window or turn towards it?  
" " " fear the heat from stove or grate?  
" " " speak, and what did it say?  

How many words could it say at 1 year? at 18 months? at 2 years? 

(Please observe and report the order of the Parts of Speech.) 

Are these observations made from memory? from a diary? or from week to week?  

Observers are referred to the following publications among others: 

II. REPORT OF THE DEPARTMENT OF EDUCATION FOR THE YEAR 1880-1.

By Mrs. Emily Talbot, Secretary of the Department.

Read September 6, 1881.

The Education Department of the American Social Science Association presents for your consideration a group of Papers, the discussion of which it is hoped will prove to be useful. It has been the aim of this Department to bring to your attention those topics which seem, to leading instructors, of vital importance to the best development of the educational interests of the country. The impression made upon society has been evident, and it is believed to have been salutary.

It is but two years since the Rev. Professor Peabody, of Harvard College, was invited to read a Paper before this Association upon School Suffrage for Women, in which occasion was taken to urge the importance of giving woman her full influence, authority, and power in the management of schools, and in the choice of their functionaries. Since that time, of the two millions of women in the State of New York alone, all those qualified by age and education have had this privilege of school suffrage conferred upon them.

This Department has directed attention, year by year, to the interests of Public Libraries and their relations to the public schools; and town after town, and State after State have become interested to discover their duties and obligations in this matter. The discussion is still going on. The same is true of the prominence which has here been given to the importance of the Newspaper as an educator: and your Committee believe that their suggestions have been the occasion of many timely articles on the subject in the public press of many parts of the country.

The immense service to the higher education of the United States, which would result from an annual national conference of university and college presidents, was suggested by this Department, some years since, in these words: "That such conferences would secure a united and healthy growth in those educational methods which are regarded as essential to success in all countries; while entrance examinations, courses of study, electives, degrees, discipline, and other matters of mutual interest, might be so adjusted as to save
perplexity to the parents, and to the teachers of the fitting schools,—and what is also of great importance, time to the students." It is well known that local conferences, on specific subjects, have been held from time to time, notably in the State of Ohio, and more recently by the most prominent colleges of New England. The good which has already resulted to limited sections of the country from this interchange of opinions, is indicative of the great benefits which might be expected, when by delegates, in council, every college in the land shall be represented in such a Conference. No body of men could come together whose proceedings would be watched with deeper interest, or who could command so powerful an influence, both on the present and future welfare of this country.

The abolition of sex disabilities in education, which the Association has advocated from its foundation, has steadily gained ground. To say that more than one-half of the institutions which possess the right to confer degrees, and do so, without respect to sex, are in the States of the West, no longer disposes of the subject. Russia, Italy, India, and Spain have, one by one, removed obstructions to the higher education of women. Latterly the conferring of degrees by London University has been followed by such a recognition of women students at Cambridge, Oxford, and Glasgow, as to foreshadow but one result; while the Senate of the University of Durham has passed a resolution permitting women, who shall have fulfilled the requirements of the institution respecting residence and standing, to take the public examinations and the first degree in arts. The queen of England has ordered "that the degrees of bachelor and master of arts, and bachelor and doctor of medicine, of laws, of science, and of music, conferred by the University of Adelaide, South Australia, on any person, male or female, shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence and consideration throughout the British possessions." Thus the English are rapidly surpassing the self-satisfied Americans in the university advantages offered to women.

These are a few of the topics on which this Department has struck the key-note for progress in the past. In the present no subject (relating to education) is so important to the whole country as the magnificent plan designed by Congress for the national support of both literary and industrial education. The President of Boston University, in the Year Book of 1881, speaks of the
opening section of the Educational Bill, passed by the United States Senate last winter, as "an evangel of blessing to unborn millions;" the provisions for the distribution of funds, "such as should commend themselves to patriots of every section and party," and the giving to women equivalent advantages with men, "wise and just and statesmanlike." This Association and the educational public have here a duty, to appreciate and sustain the work attempted by Congress, and by every means in their power help to carry it forward to success.

Note.—The Papers presented by Mrs. Talbot at Saratoga, besides those on Infant Development as printed on pages 1-52, and Prof. Hall's Paper on pages 56-76, were those by General Eaton of the U. S. Bureau of Education, Dr. Gallaudet on Deaf-Mute Education, and by Prof. A. G. Bell on Articulation in the Instruction of the Deaf. None of these three papers have come to hand for printing here, and they are therefore omitted.
III. THE MORAL AND RELIGIOUS TRAINING OF CHILDREN.

(A Paper read at the General Meeting of the American Social Science Association (Department of Education), September 6, 1881.)

By Prof. G. Stanley Hall.

The policy which the German states have long pursued with more or less constancy was first forcibly indicated by Luther, who declared that he who did not send his child to school must be regarded as an enemy of the state. A strong and almost universal public sentiment, backed by compulsory laws with cumulative penalties, and rigidly enforced, now gives the greatest practical efficacy to the principle that all citizens must send their children to school as well as, and for the same reasons, that they must pay taxes or fight in time of war; viz., pro domo publico. In his famous addresses to the German nation Fichte urged, near the beginning of the century, that if Germany was ever to rise from the low estate to which she had then fallen, it must be by becoming, as Nature and Providence seemed to him to have decreed to her, pre-eminently and exclusively an educational state. It was her peculiar mission, he believed, to develop educational institutions, which should surpass and give pattern to those of all the rest of the world, and to allow the German instinct for unity to be moulded into the form of real nationality by these. Something like this has become the method of imperialism there. Perhaps it is hardly too much to say that educational laws, methods, and establishments are the very best products of civilization in Germany. The lessons of history, past and contemporary, are brought to bear by scholars and specialists of European fame upon every new measure proposed in Diet or Reichstag; and the ministry of education is, to say the least, second to no department in the German cabinet. The general result is that, while no modern state has had greater obstacles to overcome, such as provincialism, the worst of military-strategic situations, poverty, an aggravated and ever-recurring religious question, etc., the German state today is very strong not only in material, but also in the ideal elements of national strength. More than any other government she has known how to adopt the best features of both the Roman and the Greek states, and in several of its more unobjectionable aspects she has even actualized the Platonic Republic, in which
the chief care of the law-giver was the education of the young. Her methods and aims in this direction are now, especially since the Franco-Prussian war, slowly gaining force in the school legislation of most countries of continental Europe, as well as in our own.

But if popular education is now assumed as a condition of existence for monarchies, it is obviously far more essential to the stability and permanence of a republic, governed by nearer the average intelligence, and where schools have most to do in determining the level of that average, and with practically no educational qualification for citizenship. If, in view of this, any one will take the trouble to look over the statistics of illiteracy in our own country, or to examine, if only cursorily, the present educational condition of the Southern States and its obvious and undisputed effects upon the tone of public life, or to read up some representative chapter of the recent history of our educational legislation, and to observe how much of it is distorted and perverted by jobbery or partisan interests, compromises, etc., and how much more of it is the work of the ambition of incompetent third-rate legislators, he will, perhaps, begin to realize more plainly than ever before in how real and literal a sense the life of our republic is a struggle for existence against ignorance and the evils which troop in its train, and to see how it is that the question, whether a republican form of government can be permanent, is at bottom a question of education. There is ample evidence that the founders of our institutions realized more clearly than we do that "a republic demands for its continued existence a higher standard of both knowledge and virtue among the people than any other form of government," that school laws are the most fundamental department of legislation in a republic, and that the peculiar political problems liable to a republic can be finally solved not by the legislation of majorities, but gradually and by no other means than by education. Indeed, our patriotism is not so much love of past history or confidence in present institutions as it is belief that human nature is at bottom good, and trust in the beneficent, regulative power of knowledge.

The notion of freedom as quite commonly interpreted is strictly anti-pedagogic. John Stuart Mill is wrong. The laissez faire, laissez aller principle is suicidal in a republic,—impressive as is the casuistry with which it is so often defended. There must be des-
potism here if need be. There will always be many who will have
to be forced to go to school, coaxed, hired, threatened, flogged,
trepanned almost, to learn when they are there, and constantly
watched and withheld from every evasion or way of escape. Some
can respond to no motives but love, praise, and reward, and would
be spoiled by coercion, while others, in whom these main-springs
of action do not exist and cannot be developed, respond readily
and naturally only to a rod of the liberal dimensions prescribed by
German school laws. Moral freedom is attained only in so far as
the highest motives are spontaneously and autonomously acted
upon, and as lower selfish motives are disregarded. This real
freedom is the end of education, and if it be assumed at the begin-
ning, education is impossible.

There are now abundant indications that we are again beginning
to realize that the three R's, or indeed intellectual training alone,
are not all that is meant by education, as is so often implied by cur-
rent educational rhetoric. When we speak of loving knowledge
for its own sake, we mean for the sake of its effect on our charac-
ters, as distinguished from all material advantages which may result
from it. Strictly speaking, love of knowledge for its own sake is
a psychological impossibility. It cannot exist without affecting
conduct and character, and its value is measured by the way and
the degree in which it does so. That knowledge can have any in-
trinsic value in and of itself alone is, indeed, the superstition of
rationalism and éclaircissement, and is no less misleading than is
the merely commercial view of it. Like light, knowledge, it is
well said, is good to see by rather than to see. Without exerting
or ripening into ethical potency, knowledge is not power but weak-
ness, and is nearly as likely to arm the bad as the good elements
of the soul and of society. German educators at least have little
respect for the Platonic scruple whether virtue can be taught, and
so call their department pedagogy (which even Hegel defined as
pre-eminently the art of making men moral), despite the unpleas-
ant associations which the word calls up, because the term includes
moral discipline in addition to mere didactics. They assume that
"life without knowledge is better than knowledge which does not
affect life," and that "all which frees the mind is disastrous if it
does not at the same time give self-control and make us better."
In a republic, then, in a peculiar sense, I conclude, moral, at the
very least as much as intellectual training, is the obligation which
the schools owe to the state and even to society.
To realize how great and peculiar is the need of moral training in this country, we need simply to reflect that nowhere are children emancipated from the control of parents at so early an age, that nowhere is individual liberty respected, or self-control and spontaneity addressed, so precociously. The American child, too, comes into incessant contact with children of all social grades and nationalities, and is more liable to the contagion of vice. It should also not be forgotten that fraud in business and politics make public life, in which scarcely any great event has of late been accomplished without scandal, a school of immorality for the young. Private character is subjected to unusual strains in many ways, including all those peculiar to a period of transition in matters of faith; and the administration of justice, in which republics so easily and fatally fail, is already in many portions of our land, to say the least, exceedingly imperfect. It is not pleasant to dwell upon pictures like these, nor is it pessimistic; but it is simply unpatriotic to refuse to recognize tendencies which strike competent foreign students of our institutions so forcibly, and against which the influences of education should be mainly directed.

In most European systems, moral is intimately bound up with religious training; the moral code is derived from scriptures, much as it is by very many teachers of religion in our own country. Here, too, moral training has in the past been left mainly to the church, the strong line of partition between which and the state is perhaps the most original and cherished solution of the religious question in history.

Salutary and important as this principle has proved, it hardly need be said that it must not be too rigorously insisted upon. If each sharp-scented sectary, in this land of sects, had been allowed to go through all the school-books and sift out all that seemed objectionable to him; if the Jew were permitted to eliminate all that was distasteful to him in the history of primitive Christianity, and the Catholic to weed out the story of the Reformation and evolutionary text-books, and if Quakers, atheists, Methodists, and all the rest could challenge what their respective consciences found offensive, what sort of a curriculum would be left in history, literature, or the arts? Yet, although the separation between school and church can never be absolute, because the human soul cannot be cleft in two, the method has such practical advantages, and is so congenial an expression of the instinct of religious tolera-
tion, that it is quite commonly assumed that the State has no right whatever to inquire into the efficiency of the ethico-religious methods of training adopted by the Church,—still less to interfere with them, whatever their character, or however great the public need.

The difficulty of coming into close quarters with our theme, is vastly augmented by the fact that the literature upon the subject is so voluminous that most of it represents the views of single individuals, denominations, or confessions, and that no serious or competent attempt has been made, at least in the English language, to give comprehensive, practical, organic form to the insights that must be sought from so many widely differing sources. Some one has conjectured that if all the volumes now in existence which are expressly devoted to moral and religious training were piled together, a structure as large as the tower of Babel might be reared of them alone; and adds that if they could all speak, a confusion of tongues surpassing the "Babel-babble" would be heard. Not only Catholics, Jews, and sceptics, but all Protestant sects have contributed to this confusion, until many have drawn hence additional reason for complacency in things as they are, and until,—although we are just beginning to seek a course in practical mechanics for public schools so generic that no special industry shall be favored above another, and of utility for all children like the three R's,—the very possibility of such a course in religion and morals as shall be impartial to all the sects, but helpful to each of them, is doubted or even denied. Scarcely a decade ago, most of us would have perhorresced the idea that there could be a seven years' course of Bible study adopted in common by most of the Protestant sects. But it is plain that the consensus respecting right and wrong conduct is still wider. Much moral truth is taught in common by Jews, Catholics, and Protestants, by unpedagogic methods, which would be greatly improved if the same common matter were to be admitted by the consent of all into the public schools. The deeper and broader the religious life, or consciousness, experience, insight,—the larger does this common element become. Indeed, the existence and need of common elements, which no one can doubt, which must be held by all, always and everywhere, which men must believe as men, has been postulated often enough by Protestant thinkers, and underlies the very idea of Catholicity, and, in fine, of religion itself. The very
idea of Bible is consensus. It assumes the same needs, instincts, possibilities, talents, and predispositions in all for receiving the deliverances of the highest of all Muses, the Holy Spirit.

So far as the psycho-pedagogic or practical character is concerned, and rigorously excluding every other aspect of it,—religion is most fundamentally characterized as the popular culture of the highest ideal, as opposed to material utility, which dominates so many of our intellectual interests, by reconformity of life to it. It may be formulated as unity with nature, as the readjustment of conduct to conscience, as restored harmony with self, reunion with God, newly awakened love for Jesus, fresh insight into his mind as new impulse to do his will. The common element is obvious. There has been a loss of the primitive relation or aptitude to the highest or ideal norm, and man struggles back, not without pain and great effort, to restore the lost relationship. In a word, there must be atonement, with implication of previous estrangement. When this process is conceived as intellectual, faith or intuition are said to close in with certain doctrines considered as normative and central; as emotional the heart is reconciled and loves a divine person; and as volitional, God's will is done. How man came to deviate from the ideal; the cause and extent of the alienation; how the ideal is to be conceived,—whether subjectively as conscience or a higher instinct always pointing toward the undiscovered pole of human destiny, or objectively as an offended Deity who must be placated by religious observances,—or as the incarnate logos; how the reconciliation takes place,—whether the divine ideal inclines to us or we to it first, most, or on what occasion and motive, and in the face of what difficulties and with what kind of mediation, if any; and possibly even whether the whole process be literally real and actual, and accomplished in one time and place for all times and places, or an expression for the whole course of individual life and human history; or, finally, as a sort of formulation which some universal sentiment, like, e.g., that of absolute dependence, gives itself naturally in all ripely developed lives; or indeed, all these at once, the results here and hereafter,—these questions, important as they have become, must be subordinated as different explanations of the one great law under which morality itself as well as religion is included. The difference between the lowest, most undeveloped, or natural religion, and its highest form of revealed Christianity is so vast, and so justly
emphasized by the Church, because it is so essentially pedagogic and practical; or because it makes what the individual is too limited to more than vaguely anticipate, so articulate, apprehensible, and available, as a stimulus and guide to right conduct. It is not mere subjectivism, as Palmer charges in his "Evangelischen Pädagogik," to say that there must be a natural instinct in man coinciding more or less exactly with all that revelation gives, because but for this the latter would be unapprehensible and worthless. Indeed, it is because this fundamental native instinct, often described as longing, craving, homesickness for the good and true,—is undeveloped, that religion is so often conceived as the irruption of a foreign principle, a graft from a new stock. It is a psychological impossibility to teach anything as purely authoritative. If religion can be taught or revealed, it must already be performed in us by nature, though it may be but dimly. The teacher, then, must ever regard and inculcate religion, as in a sense a growth or development; and in such a way that this natural predisposition be neither neglected, repressed, nor distorted. The pupil should, and in fact, naturally does, repeat the course of the development of the race; and education, is simply the expediting and shortening of this course. This latter is mainly accomplished in religious training by avoiding the countless and tedious deviations, superstitions, and errors which make up so large a part of the history of religion. In a word, religion is the most generic kind of culture as opposed to all systems or departments which are one-sided. All education culminates in it because it is the chief among human interests, and because it gives inner unity to the mind, heart, and will.

It only remains to be said that this common element of union, alienation from and reunion with God, is first and most profound both logically and psychologically. The points of difference between sects, and perhaps to some extent between the ethnic religions, have their justification in natural differences of race, temperament, culture, and associative connections of thought and feeling generally which are not developed in childhood. All

* Cf., on this paragraph, Diesterweg, "Wegweiser zur Bildung für Deutsche Lehrer," 5te Auflage, 1875. Bd. II. s. 3, et seq.
differences of this sort should have a very subordinate place or none at all in the religious training of the young. For a child to know more about matters that are peculiar to the sects, or even to Protestantism as opposed to Catholicism, than about the practical notions of religion itself, would be as absurd pedagogically as for a medical student to learn the fine points of difference between the nativistic and empirical theories of physiological optics before the fundamental structure of the eye was understood. We are now ready to inquire how this common element should be taught.

To be really effective and lasting, moral and religious training must begin in the cradle. It was a profound remark of Fröbel,—who, although he could study only borrowed babies because he had none of his own, has really seen further into the infant soul than Darwin, Taine, Preyer, Kussmaul, or Romanes in their baby-studies,—that the unconsciousness of a child is rest in God. This need not be understood in any pantheistic sense. From this rest in God the childish soul should not be abruptly or prematurely aroused. A generic germinal-physical sensation, before the special senses develop their functions; a vacuous envisagement of pure being, a feeling of transcendent happiness or even angelic communion, gradually lapsing into the particular experiences of life; have all been conjectured, and may, for aught we can prove to the contrary, all exist in the infant soul; down and back into which scientific observation has scarcely more than just begun its explorations. Even the primeval stages of psychic growth, or objectivization, are rarely so all-sided, so purely unsolicited, spontaneous, and unprecocious, as not to be in a sense a fall from Fröbel’s unconsciousness or rest in God. The sense of touch, the mother of all the other senses, is the only one which the child brings into the world already experienced; but by the pats, caresses, hugs, etc., so instinctive with young mothers, varied feelings and sentiments are communicated to the child long before it recognizes its own body as distinct from things about it. The mother’s face and voice are the first conscious objects as the infant soul unfolds, and she soon comes to stand in the very place of God to her child. All the religion of which the child is capable during this by no means brief stage of its development consists of those sentiments—gratitude, trust, dependence, love, etc.—now felt only for her, which are later directed toward God. The less these are now cultivated toward the mother, who is now their only fit-
ting if not their only possible object, the more feebly they will later be felt toward God. This, too, adds greatly to the sacredness and the responsibilities of motherhood. I believe with Fröbel that thus fundamental religious sentiments can be cultivated in the earliest months of infancy, although I cannot see all the efficacy his followers claim for the means to this culture, developed in his "mother and cosseting songs." It is of course impossible not to seem, perhaps even not to be, sentimental upon this theme; for the infant soul has no other content than sentiments, and because upon these rests the whole superstructure of religion in child or adult. The mother's emotions, and physical and mental states, indeed, are imparted and reproduced in the infant so immediately, unconsciously, and through so many avenues, that it is no wonder that women are more disposed than men to believe in occult and perhaps supernatural influences or rapport connecting the souls of distinct individuals. Whether the mother is habitually under the influence of calm and tranquil emotions, or her temper is fluctuating or violent, or her movements are habitually energetic or soft and caressing, or she be regular or irregular in her ministrations to the infant in her arms,—all these characteristics and habits are registered in the primeval language of touch upon the nervous system of the child, as surely as the planchette responds to the influences of unconscious cerebration. At no period of life is it truer, in a broader sense, that she does most for her child who does most for herself. All that affects her affects it. From this point of view, poise and calmness, the absence of all intense stimuli and of sensations or transitions which are abrupt or sudden, and an atmosphere of quieting influences, like everything which retards by broadening, is in the general line of religious culture. Fröbel well compared the soul of an infant to a seed planted in a garden. It was not pressed or moved by the breezes which rustled the leaves overhead. The sunlight did not fall upon it, and even dew and evening coolness scarcely reached it; but yet there was not a breath of air, nor a ray of sunshine, nor a drop of moisture to which it was unresponsive, and which did not stir all its germinant forces. The child is a plant, must live out of doors in proper season, and there must be no forcing. Religion, then, at this important stage, at least, is naturalism pure and simple and nothing more; and religious training is the supreme part of standing out of nature's way. So implicit is the unity of soul
and body at this formative age that care of the body is the most effective ethico-religious culture.

This is not the place to enter into details respecting the psychic growth of children, but it should be specified that, however successfully it may be delayed, the time must come when the child will know its own limbs, then its own body as a whole, as distinct from other objects, and when its narrow circle of remembered and associated impressions rounds off into a rudimentary personality. Fichte thought this stage epochal, and celebrated it by a banquet, when his child first used the pronoun I. Frobel thought this independence could be cultivated earlier by the little game of bo-peep on the mother's lap, by holding the child erect at arm's length from its mother, etc. As the infant thus learns to distinguish between what it does to or for itself and what others do for it, it becomes capable of commanding and obeying, of helping itself, and of feeling the natural consequences of its own acts. Its cerebral centres are rapidly taking shape and acquiring firmness of texture, and it should be most carefully thrown on its own resources so far as they are fully developed, but no farther. Before the child can speak, the mother is called upon to distinguish between the sounds which spring from helplessness and dependence, and real needs which should be cultivated on the principle of broadening by retarding, and those which spring from the moods and whims of an embryonic personality, which may be dwarfed or perverted if allowed to functionate too early, as surely as its legs may become bandied by trying to walk prematurely. It is because as babies grow few and rare, and as mothers tend to become more fond than wise, that this tender but important cradle-battle so often goes against the latter, and children are spoiled, mothers enslaved, and, instead of pleasures which are few, mild, and uniform, special, unusual, and intense enjoyments which bring reactions are permitted, and artificial systems of rewards and punishments are resorted to; while the mother gradually loses her influence over the child before the dawn of that adolescent age in which maternal influences and home-ties should be at their strongest and best. The great lesson of this protracted stage of development is the limitation of the absolute selfishness of infant nature, and the recognition of and entire subordination to the rights of others, upon whom it must be made to feel its almost absolute dependence. No sharp or rude constraints should interfere with the expansion of
its sympathies and affections to others, and no indulgences should obviate the lesson of quiet submission to the authority and even convenience of adult wisdom above its own. The child has few rights other than the satisfaction of its physical needs, for it can perform few duties.

Next to be considered are the sentiments which unfold under the influence of that fresh and naïve curiosity which attends the first impressions of natural objects, from which both religion and science spring as from one common root. The awe and sublimity of a thunder-storm, the sights and sounds of a spring morning, objects which lead the child’s thoughts to what is remote in time and space, old trees, ruins, the rocks, and, above all, the heavenly bodies,—the utilization of these lessons is the most important task of the religious teacher during the kindergarten stage of childhood. Still more than the undevout astronomer, the undevout child under such influences is abnormal. In these directions the mind of the child is as open and plastic as that of the ancient prophet to the promptings of the inspiring Spirit. The child can recognize no essential difference between nature and the supernatural, and the products of mythopoeic fancy which have been spun about natural objects, and which have lain so long and so warm about the hearts of generations and races of men, are now the best of all nutriment for the soul. To teach scientific rudiments only about nature, on the shallow principle that nothing should be taught which must be unlearned, or to encourage the child to assume the critical attitude of mind, is dwarfing the heart and prematurely forcing the head. To indulge in goody talks, or to moralize about God or heaven, is here impertinent and distasteful. The one course paralyzes the healthiest and strongest sentiments, the other cultivates sentimentality and the affectation of impossible insights, or else makes these subjects uninteresting or positively distasteful later, when the mind is ripe for them. It has been said that country life is religion for children at this stage. However this may be, it is clear that natural religion is rooted in such experiences, and precedes revealed religion in the order of growth and education, whatever its logical order in systems of thought may be. A little later, habits of truthfulness are best cultivated by the use of the senses in exact observation. To see a simple phenomenon in nature and report it fully and correctly is no easy matter, but the habit of trying to do so teaches what truthfulness is, and leaves
the impress of truth upon the whole life and character. I do not hesitate to say, therefore, that elements of science should be taught to children for the moral effect of its influences. At the same time all truth is not sensuous, and this training alone tends to make the mind pragmatic, dry, and insensitive or unresponsive to that other kind of truth, the value of which is not measured by its certainty so much as by its effect upon us. Renan has remarked in substance that all higher truth consists in nuances, which play over that realm of conscience and the humanities where open questions will always excite hope and fear. We must learn to interpret the heart and our native instincts as truthfully as we do external nature; for our happiness in life depends quite as largely upon bringing our beliefs into harmony with the deeper feelings of our nature, as it does upon the ability to adapt ourselves to our physical environment. Thus not only all religious beliefs and moral acts will strengthen if they truly express the character, instead of cultivating affectation and insincerity in opinion, word, and deed, as with mistaken pedagogic methods they so commonly do. This latter can be avoided only by leaving all to naturalism and spontaneity at first, and feeding the soul only according to its appetites and stage of growth. No religious truth must be taught as fundamental—especially as fundamental to morality—which can be seriously doubted or even misunderstood. Yet it must be expected that convictions will be transformed, and worked over and over again, and only late, if at all, will an equilibrium between the heart and the truth it clings to as finally satisfying be attained. Hence most positive instruction in Christian truth should be delayed at the very least to the first school year. Many things must come of course incidentally. These should be taught only when demanded and in the briefest possible way, and with the feeling impressed upon the child that these are most serious things, but too high for it yet. This will stimulate curiosity for them later. Up to this age, at the very least, the child should not be encouraged in church-going or public piety of any sort. If permitted at all it should be only as a reward, but is dangerous, lest sacred things become familiar and conventionalized before they are felt or understood.

So long as the child’s parents supply the place of Providence to it, and before its wishes and desires expand beyond the domestic circle, it is only a pretty affectation to cultivate a sense of very
great intimacy with the Heavenly Father. To feel its inmost thought watched by a divine eye will only tend to foster self-consciousness, or a morbid and precocious conscientiousness, or at best the forms of conventional morality; while its conceptions of God's nature will be inadequate even to the verge of idolatry, and perhaps forever dwarfed by childish associations. The child's real communion with God is in fact far too immediate and inward to be more than faintly typified by any forms of conscious worship which it can share. It is the being of a precociously and wrongly apprehended God which soon comes to need proofs of his existence; and perhaps, as Lotze says, men were mistaken when they thought they had done well in raising God from that region where he is clung to by the whole soul with all its spontaneous energy, and conferring on him the honor of exactly demonstrating his existence. There is a sense, although it seems more indefinite and general than Lessing thought, in which the stages of a child's mental growth repeat the experience of the race. The idea of God is not flashed in upon the infant mind, complete and vivid at first, by any native intuitions. It can be realized in a natural way only after the necessity of a cause is felt to be general, or when the demand for a unity and centre of things in the wide and varied world arises. The child's conception of God should not be personal or too familiar at first, but he should appear distant and vague, inspiring awe and reverence far more than love; in a word, as the God of nature, rather than as devoted to serviceable ministries to the child's individual wants. The latter should be taught to be "a faithful servant rather than a favorite of God." The inestimable pedagogic value of the God-idea consists in that it widens the child's glimpse of the whole, and gives the first presentiment of the universality of laws, such as are observed in his experiences and others, so that all things seem comprehended under one stable system or government. The slow realization that God's laws are not like those of parents and teachers, evadable, suspendable, and their infraction perhaps pardoned,—but changeless, pitiless, and their penalties sure as the laws of nature,—is a most important factor of moral training; more Jewish perhaps than Christian, more scientific it may be said than evangelical, but a factor too noble to be obscured or suppressed, or prematurely superseded, as it often practically is by the notion of God as a fond and too indulgent Heavenly Parent, like the father or mother
swayed by foolish childish petitions, and always ready and longing to forgive. First the law, the schoolmaster, then the Gospel; first nature, then grace, is the order of growth. That child is unfortunate which has never seen its mother or its father pray, but it does not follow that it should be encouraged to frequent child prayer-meetings.

The pains or pleasures which follow many acts are immediate, while the results that follow others are so remote or so serious that the child must utilize the experience of others. Artificial rewards and punishments must be cunningly devised so as to stimulate and typify as closely as possible the real natural penalty, and they must be administered uniformly and impartially like laws of nature. As commands are just, and as they are gradually perceived to spring from superior wisdom, respect arises; which Kant called the bottom motive of duty, and defined as the immediate determination of the will by law, thwarting self-love. Here the child reverences what is not understood as authority; and to the childish "why?" which always implies imperfect respect for the authority, however displeasing its behest,—the teacher or parent should always reply, "You cannot understand why yet;" unless quite sure that a convincing and controlling insight can be given, such as shall make all future exercise of authority in this particular unnecessary. From this standpoint the great importance of the character and native dignity of the teacher is best seen. Daily contact with some teachers is itself all-sided ethical education for the child, without a spoken precept. Here, too, the real advantage of male over female teachers, especially for boys, is seen in their superior physical strength, which often, if highly estimated, gives real dignity and commands real respect; and especially in the unquestionably greater uniformity of their moods and their discipline.

During the first four or five years of school life the point of prime importance in religious training is the education of conscience. This latter is the most complex and perhaps the most educable of all our so-called "faculties." A system of carefully arranged talks, with copious illustrations from history and literature, about such topics as fair play, slang, cronies, dress, teasing, "getting mad," prompting in class, white lies, affectation, cleanliness, order, honor, taste, self-respect, treatment of animals, reading, vacation pursuits, etc., can be brought quite within the range of boy and girl interests by a sympathetic and tactful teacher, and be
made immediately and obviously practical. All this is nothing more nor less than conscience building. The old superstition that children have innate faculties, of such a finished sort that they flash up and grasp the principle of things by a rapid sort of first "intellection," —an error that made all departments of education so trivial, assumptive and dogmatic for centuries before Comenius, Basedow and Pestalozzi,—has been banished everywhere save from moral and religious training, where it still persists in full force. The senses develop first, and all the higher intuitions called by the collective name of conscience, gradually and later in life. They first take the form of sentiments without much insight, and are hence liable to be unconscious affectation, and are caught insensibly from the environment with the aid of inherited predisposition, and only made more definite by such talks as the above. But parents are prone to forget that healthful and correct sentiments concerning matters of conduct are at first very feeble, and that the sense of obligation needs the long and careful guardianship of external authority. Just as a young medical student with a rudimentary notion of physiology and hygiene is sometimes disposed to undertake a more or less complete reform of his diet, regimen, etc., to make it "scientific," in a way that an older and a more learned physician would shrink from, so the half-insights of boys into matters of moral regimen are far too apt, in the American temperament, to expend, in precocious emancipation and crude attempts at practical realization, the force which is needed to bring their insights to maturity. Authority should be relaxed gradually, explicitly, and provisionally over one definite department of conduct at a time. To distinguish right and wrong in their own nature is the highest and most complex of intellectual processes. Most men and all children are guided only by associations of greater or less subtlety. Perhaps the whole round of human duties might be best taught by gathering illustrations of selfishness and tracing it in its countless disguises and ramifications through every stage of life. Selfishness is opposed to a sense of the infinite, and is inversely as real religion; and the study of it is not, like systematic ethics, apt to be confused and made unpractical by conflicting theories.

The Bible, the great instrument in the education of conscience, is far less juvenile than it is now the fashion to suppose. At the very least it expresses the result of the ripest human experience,
the noblest traditions of humanity. Old Testament history, even more than most very ancient history, is distilled to an almost purely ethical content. For centuries Scripture was withheld from the masses, for the same reason that Plato refused at first to put his thoughts into writing, because it would be sure to be misunderstood by very many, and lead to that worst of errors,—a fanaticism caused by half-truths. Children should not approach it too lightly. It might seem that doctrinal catechisms were the most unpedagogic methods of approach, but a more baleful one has been developed in the ardor of those Sunday-school teachers who require devotion in their closet as the chief means of preparation, and go, tingling with the self-consciousness which is the bane of American childhood, to inoculate their classes with their own neurological states. Belief is actually made a duty; and as if that, as too often taught, were not enough to stultify conscience, it is made the supreme duty and a condition of salvation even for children.

The Old Testament, rather than the New, is the Bible for childhood. A good, protracted course of the Law must pedagogically prepare the way for the apprehension of the Gospel. Even for the Old Testament, a propaedeutic selection of the choicest moral tales from Catholic legends, classic and Hindoo mythology, ancient myths and fables, German märchen, and perhaps from the Bibles of other religions, etc., should serve as a sort of introduction. What a Sunday-school library might be gradually developed from such sources, in place of the trashy and even pathological matter so commonly in use! Then the study of the Old Testament should begin with selected tales, told, as in the German schools, impressively, in the teacher's language, but objectively, and without exegetical or hortatory comment. The appeal is directly to the understanding only at first, but the moral lesson is brought clearly and surely within the child's reach, but not personally applied after the manner common with us. In that country, only clergymen who have passed a special examination for that purpose, are allowed to teach the Bible to children. This is done in the schools in a way so impressive, that the knowledge of the Bible possessed by the average German child of the age of confirmation, is infinitely better than that acquired by the best children under our uniform lesson system. The causes of unbelief in that country are not found in what precedes that age, but may be due in part...
to the fact that Bible study generally ceases then for life. The Old Testament is, from beginning to end, one long and impressive argument in favor of the practical wisdom of righteousness as a condition of personal welfare and national stability—a lesson not untimely now, and in our land. This lesson must be thoroughly and protractedly taught, before the sublime altruistic standpoint of the New Testament can be apprehended. Up to this point the essential training of Jewish, Catholic, and Protestant children now differs only in method and detail, and it seems by no means impossible that a portion of this common element may be some time mutually agreed upon, and even taught in public schools by common consent and with the real advantage of superior methods to all.

Probably the most important changes for the educator to study are those which take place between the ages of twelve and sixteen, when the young adolescent receives from nature a new capital of energy and altruistic feeling. It is a veritable second birth, and success in life depends upon the care and wisdom with which this energy is husbanded. These changes constitute a natural predisposition to a change of heart, and may perhaps be called, in Kantian phrase, its schema. Even from the psychophysical standpoint, it is a correct instinct which has slowly led so large a section of the Christian church to centre its entire cultus upon regeneration. In this I of course only assert the neurophysical side, which is everywhere present, though everywhere subordinate to the spiritual side. As everywhere, too, the physical is regulative rather than constitutive. It is therefore not surprising that statistics show—so far as I have yet been able to collect them—that far more conversions, pro rata, take place during the adolescent period, which, according to the best authorities, does not normally end before the age of twenty-four or five, than during any other period of equal length.

Before this age the child lives in the present, is normally selfish, deficient in sympathy, but frank and confidential, obedient upon authority, and without affectation save the supreme affectation of childhood, viz., assuming the words, manners, habits, etc., of those older than itself. But now stature suddenly increases, and the power of physical endurance diminishes for a time; larynx, nose, chin change, and normal and morbid ancestral traits and features appear. Far greater, more protracted, though unseen,
are the changes which take place in the nervous system, to which
it seems as if for a few years the energies of growth were chiefly
directed. Hence this period is so critical, and changes in character
so rapid. No matter how confidential the relations with the
parent may have been, an important domain of the soul now
becomes independent. Confidences are shared with those of equal
age and withheld from parents, especially by boys, to an extent
probably little suspected by most parents. Education must be
addressed to freedom, which recognizes only self-made law, and
spontaneity of opinion and conduct is manifested, often in extra-
agant and grotesque forms. There is now a longing for that kind
of close sympathy and friendship which makes cronies and inti-
mates; there is a craving for strong emotions which gives pleasure
in exaggerations; and there are nameless longings for what is far,
remote, strange, which emphasizes the self-estrangement that
Hegel so well describes, and which marks the normal rise of the
presentment of something higher than self. Instincts of rivalry
and competition now first naturally arise in boys, and girls grow
more conscientious, and begin to feel their music, painting, etc.,
and to realize the bearing of these upon their future adult life.
There is often a strong instinct of devotion and self-sacrifice
toward some, perhaps almost any, object or in almost any cause
which circumstances may present. It is never so hard to tell the
truth plainly and objectively, and without any subjective twist.
The life of the mere individual ceases and that of person, of the
race, begins. Many relations of things which hitherto seemed
independent are seen. It is a period of realization, and hence
often of introspection. It is the golden age of life, in which
enthusiasm, sympathy, generosity, and curiosity are at their
strongest and best; and when growth is so rapid that, e.g., each
college class is conscious of a vast interval of development which
separates it from the class below; but it is also a period subject to
Wertherian crises, such as Hume, Richter, J. S. Mill, and others
passed through,—and all depends on the direction given to these
new forces.

The dangers of this period are great and manifest. The chief
of these, far greater even than the dangers of intemperance, is that
the sexual elements of soul and body will be developed prematurely
and disproportionately. Probably the greatest and most experi-
enced living teacher of physiology has expressed the opinion that
at least nine-tenths of the thoughts, feelings, imaginations of the average male adolescent centre for a few early years of this period about this factor of his nature. Quite apart, therefore, from its intrinsic value, education should serve the purpose of pre-occupation, and should divert attention from an element of our nature, the premature or excessive development of which dwarfs every part of soul and body. Intellectual interests, athleticism, social and aesthetic tastes should be cultivated. There should be some change in external life. Previous routine and drill-work must be broken through and new occupations resorted to, that the mind may not be left idle while the hands are mechanically employed. Attractive home-life, friendship well chosen and on a high plane, and regular habits, should, of course, be cultivated. Now, too, though the intellect is not frequently judged insane, so that pubescent insanity is comparatively rare, the feelings, which are yet more fundamental to mental sanity, are most often perverted, and lack of emotional steadiness, violent and dangerous impulses, unreasonable conduct, lack of enthusiasm and sympathy, are very commonly caused by abnormalities here. Neurotic disturbances, such as hysteria, chorea, and, in the opinion of some, sick-headache, are peculiarly liable to appear and become seated during this period. In short, the previous self-hood is broken up like the regulation copy handwriting of early school years, and a new individual is in process of crystallization. All is solvent, plastic, peculiarly susceptible to external influences.

Between love and religion, God and nature have wrought a strong and indissoluble bond. Even Plato, in the Symposium, teaches this very impressively. Change of heart before pubescent years, is the most disastrous of all precocities and forecings. The age signalized by the ancient Greeks as that at which the study of what was comprehensively called music should begin, the age at which Roman guardianship ended, as explained by Sir Henry Maine, at which boys are confirmed in the modern Greek, Catholic, and Lutheran churches, and at which the child Jesus entered the Temple, is as early as any child ought to go about his heavenly Father's business. "It did not seem to me modest for my daughter to hear," said a cultivated and devout German mother, explaining why she had sent her twelve-year-old daughter from the room while I was describing revival scenes I had witnessed in this country. If children are instructed in the language of these sen-
timents too early, the all-sided deepening and broadening of soul and of conscience which should come with adolescent years, will be incomplete. Revival sermons to young children are analogous to exhorting them to imagine themselves married people, and inculcating the duties of that relation. It is because this precept is violated in the intemperate haste for immediate results, that we may so often hear childish sentiments and puerile expressions so strangely mingled in the religious experience of otherwise apparently mature adults, which remind one of a male voice constantly modulating from many tones into boyish falsetto. Some one has said of very early risers that they are apt to be conceited all the forenoon, and stupid and uninteresting all the afternoon and evening. So, too, precocious infant Christians are apt to be conceited and full of pious affectations all the forenoon of life, and thereafter commonplace enough in their religious life. One is reminded of Aristotle's theory of Catharsis, according to which the soul was purged of strong or bad passions by listening to vivid representations of them on the stage. So, by the forcing method we deprecate, the soul is given just enough religious stimulus to act as inoculation against deeper and more serious interest later. At this age the prescription of a series of strong feelings is very apt to cause attention to concentrate on physical states in a way which may culminate in the increased activity of the passional nature, or may induce that sort of self-flirtation which is expressed in morbid love of autobiographic confessional outpourings, or may issue in the supreme selfishness of incipient and often unsuspected hysteria.

God, Scripture, etc., cannot seem supreme unless taught most vigorously near the end rather than near the beginning of the educational course. Reference to these should be after we have thought and investigated and applied our faculties to their utmost, rather than before. Those who are led to Christ normally by obeying conscience are not apt to endanger the foundation of their moral character if they should later chance to doubt the doctrine of verbal inspiration or some of the miracles, or even get confused about the Trinity, because their religious nature is not built on the sand. The art of leading young men through college without unsettling any of the religious notions of childhood is anti-pedagogic and unworthy philosophy, and is to leave men puerile in the highest department of their nature.

At the age we have indicated, when the young man instinctively takes the control of himself into his own hands, previous ethico-
religious training should be brought to a focus and given a personal application, which, to be most effective, should be according to the creed of the parent. It is a serious and solemn epoch, and ought to be fittingly signalized. Morality now needs religion, which cannot have affected life much before. Now duties should be recognized as divine commands; for the strongest motives, natural and supernatural, are needed for the regulation of the new impulses, passions, desires, half-insights, ambitions, etc., which come to the American temperament so suddenly, before the methods of self-regulation can become established and operative. Now a deep personal sense of purity and impurity are first possible, and indeed inevitable, and this natural moral tension is a great opportunity to the religious teacher. A serious sense of God within, and of responsibilities which transcend this life as they do the adolescent’s power of comprehension; a feeling for duties deepened by a realization and experience of their conflict such as some have thought to be the origin of religion itself in the soul,—these, too, are elements of the “theology of the heart” revealed at this age to every serious youth, but to the judicious emphasis and utilization of which the teacher should lend his consummate skill.

Finally, there is danger lest this change, as prescribed and formulated by the church, be too sudden and violent, and the capital of moral force which should last a lifetime be consumed in a brief, convulsive effort, like the sudden running down of a watch if its spring be broken. Piety is naturally the slowest, because the most comprehensive kind of growth. Quetelet says that the measure of the state of civilization in a nation is the way in which it achieves its revolutions. As it becomes truly civilized, revolutions cease to be sudden and violent, and become gradually transitory and without abrupt change. The same is true of that individual crisis which psycho-physiology describes as adolescence, and of which, theology formulates a higher spiritual potency as conversion. The adolescent period lasts ten years or more, during all of which development of every sort is very rapid and constant, and it is, as Bushnell remarked in his admirable paper on Christian nurture, to which, its writer is much indebted, intemperate haste for immediate results, of reaping without sowing, which has made so many regard change of heart as an instantaneous conquest rather than as a growth, and persistently to forget that there is something of importance before and after it in healthful Christian experience.
TREATMENT OF INSANITY.—DR. JACOBI.

A DISCUSSION ON INSANITY.

The evening of Wednesday, September 7, at the Saratoga meeting of 1881, was occupied with a discussion of Insanity in its general aspects, at which Mr. Dorman B. Eaton, of New York, presided; the principal feature of the discussion being a Paper by Dr. Jacobi, which was read in her absence, by Dr. Edward C. Seguin, of New York. The subject was introduced by Mr. Eaton, with a few remarks, and he spoke again after the reading of the Paper, but no report of his remarks has been furnished. Prof. Harris, Chairman of the Department of Education, Dr. Channing, Chairman of the Health Department, Dr. Seguin, Mr. F. B. Sanborn, and others spoke in the debate, and an abstract of what they said is given below.

DR. JACOBI'S PAPER.

Some Considerations on the Moral, and on the Non-Asylum Treatment of Insanity.

BY MRS. MARY PUTNAM JACOBI, M. D., OF NEW YORK.

Read Wednesday evening, September 7, 1881.

The two branches of my subject indicated in its title, are in no opposition to each other. It is conceivable that moral treatment should be carried out at our asylum; it is advised; nay, nearly all the special advantages offered by asylums constitute so many elements of moral treatment. "There is," says Krafft Ebing, "no longer any room for the question, whether the therapeutics of insanity should be exclusively somatic or psychic. The knowledge that all mental phenomena are functions of the brain, indicates to us to try to affect the morbid psychic life through all psychical influences, — through the systematic awakening of feelings, conceptions, and impulses; and the experience that anatomical processes in the brain lie at the basis of insanity, commands all our efforts to remove the disturbance of the cerebral functions by means of physical medication. In the equal estimation of somatic and psychic treatment, and in the strenuous necessity for their combination, is to be found the fundamental law in the therapeutics of the psychoses." Another reason may be added to those mentioned by Krafft Ebing for this duplex therapeutics. It is that the cause of an attack of insanity may be either moral or physical, or, much more frequently, both combined. The relative predominance of the somatic or psychic element in the treatment of any given case, must correspond to that in its etiology.
In the remarks we take the liberty of offering on this occasion, we do not propose to consider the problems of the management of the pauper insane, of the provision to be made for incurable dementia, or for the final and degraded forms of insanity. Nor do we here touch upon the treatment of the psychoses associated with definite brain diseases, as general paralysis, or epilepsy. The question we select out of the vast and tangled mass, is that of the theoretically best treatment for those forms and stages of insanity which are recognized as curable, and yet which very frequently remain uncured. Setting aside discussion of the practical difficulties in the way, we would like to consider what answer could be made to the inquiries of intelligent parents who are able and anxious to contend with all difficulties, if the hope could be held out to them of ultimate cure or even of palliation to the mental disease of their smitten children. If the theory were once well worked out for these relatively fortunate cases, a standard would exist with which the treatment of the poor and unfriended could be compared. At present the notion is widely diffused that the cardinal and only treatment for insanity in any form and at any stage, is removal to an insane asylum; that this constitutes in itself a mode of cure, whose chances of success are great in proportion to the early stage of the disease at which it is instituted. Detection of incipient insanity is, therefore, said to be valuable, merely for the sake of forcibly submitting the patient to this cure at an earlier period.

We think it is quite worth while to recall in this connection what has been said, not against the abuses of asylums, but against the principle of asylum treatment. Dr. Mortimer Granville, after laborious researches among the best asylums of Great Britain, arrived at the following conclusions:*

"The existing method of dealing with lunatics is chiefly notable for its negative advantages. It is free from the objections which public opinion urged on grounds of humanity against the restraint system; but it has few positive excellencies of its own, and of these, scarcely one is remedial. . . . There is a radical fault at the base of the asylum system, and every thing is made to conform to it. Uniformity is the one dominant idea. But it is impossible to deal with minds in the mass. . . . It is one of the disadvantages accruing to the modern system of treatment, which is, indeed, scarcely a system, that cases are too frequently allowed to drift, if only quiet wards, a low death rate, and a fair proportion of discharges described as 'recoveries' can be secured. It is not that cases are neglected; they are simply overlooked." . . . "The asylum question narrows itself to one of method. The present system consists in attempting to meet the demand by simply multiplying the supply. I contend (we are still quoting from Granville), that this practice is erroneous, and can never command entire success."

According to Professor Duncan, "it is scarcely wrong to assert that the magnificent accessories of the treatment of the insane, have not been of great service to humanity. Lunatics are not more frequently cured than they used to be; the number of recoveries has not increased; the whole asylum system is uselessly expensive, and detrimental to the majority of the insane." *

Before this writing, Maudsley had been even more emphatic. He declares that insane asylums originated "in the shame, horror, and dread of insanity which still infect the public mind. . . . To shut the insane up from gaze, and, if possible, from memory; to be rid at any cost of their offending presence,—that was the one thing to be done, and fit implements were not wanting to do it. . . . I hold it to be an erroneous principle to lock up a person in an asylum simply because he is mad. . . . No one, sane or insane, should ever be entirely deprived of his liberty, unless for his own protection, or for the protection of society. . . . The world has grown to the fashion of thinking that madmen are to be sequestered in asylums. . . . Even those who labored to effect the abolition of restraint within asylums, never dreamt of the abolition of the restraint of asylums. . . . Not the least of the evils of our present monstrous asylums, is the entire impossibility of any thing like individual treatment in them. . . . One effect of asylums is to make some permanent lunatics. . . . I can certainly call to mind more than one instance in which I thoroughly believe the removal of a patient from an asylum was the salvation of his reason." †

In apparent opposition to these observations are the statements of Krafft Ebing, "that the asylum is not rarely the most direct agent of cure" †; and of Griesinger, "that removal to a good asylum is most urgently indicated in the greater number of cases." § The necessary modification is supplied by the authors themselves, in remarks which may, under many circumstances, furnish a basis for the English criticisms. "Never," observes Griesinger, "is the need of minute individualization more strenuous than in the therapeutics of insanity." "It is," says Krafft Ebing, "in the individualizing treatment of the psychically sick person that lies the entire interest, but also the entire difficulty of the therapeutics—especially in regard to its psychical side." The difficulty of effecting such individualization among the crowded populations of the best insane asylums is obvious. Before de-

* Quoted by Granville from the Quarterly Journal of Science, April, 1870.
† "Pathology of the Mind," pp. 42-43. Krafft Ebing attributes the foundation of asylums to the humane persuasion that insanity was a disease to be treated. He seems to forget Bedlam.
‡ "Lehrbuch der Psychiatrie," Bd. 1, 1880.
§ "Psych. Krankheiten," 1867 (p. 477). Griesinger gives an elaborate and attractive picture of the comfort which may be experienced by a mentally sick person on finding himself removed from the vexations and misunderstandings of home to the sheltering calm of an asylum.
ciding that insanity is practically incurable; it is important to ask
how far this difficulty alone has not hitherto stood in the way of
care.

A terrified popular imagination still pictures insanity as some
mysterious and monstrous incubus, coming from distant regions
of darkness to crush out human reason. In reality, however, in-
sanity means a complex multitude of morbid states, varying indefi-
nitely in form and intensity, but all composed of elements which
preexist in health. This fact affords a basis for prophylaxis, for
it indicates the possibility of detecting these elements and, to a
certain extent, of anticipating their morbid combinations.

There are as many degrees in the soundness of men's minds as
in the soundness of their digestions. Study of the organism of the
family, sometimes in several generations, often serves to detect
flaws in the individual organization otherwise too minute for
notice. It is to the family organism that especially applies
the doctrine of the blending of apparently opposite elements,—as
genius and insanity, both springing from an unstable equilibrium
of the nervous system. These elements sometimes, though rarely,
blend in the same person. But far more frequently it is inheritance
from the undeveloped side of an organization of genius
which results in an organization of imbecility. The original
organization gives the physical substratum; upon this the succes-
sion of psychic processes, which begin with the dawn of conscious-
ness, builds up the mental individuality. Ideas, feelings, volitions,
enter liberally into the structure of the mind, — are the constituent
elements of which this has been built up. Permit me to quote the
description given by the celebrated Griesinger:

"Self-consciousness, — the Ego,—" he says, "is an abstraction
in which are contained, closely welded together, residues of all the
sensibilities, thoughts, and volitions which the individual has ever
experienced. . . . These are gradually aggregated into com-
plex masses of conceptions, varying in density and resistance, ac-
cording to the internal cohesion of their elements. . . . The
character of the individual varies with their relative predominance;
their constant struggle with one another constitutes the internal
conflict which is essential to normal mental existence. . . .
The development of insane delusions follows the same law as that
of healthy ideas. New sensibilities, volitions, and conceptions
present themselves to the preexisting conception masses, are at
first repelled by these, gradually penetrate them, and if the
cohesiveness of the latter be weak or weakened, assimilate to them
until the Ego is transformed or completely falsified. In this pro-
cess the previous composition of the Ego is seen to be of immense im-
portance. A weak (loosely knit) nature will, much earlier than a
strong one, be overcome by anomalous conceptions." *

Thus, at any given moment, the mental organism consists not

* * "Pathologie und Therapie der Psychischen Krankheiten," 1867.
only of its physical substratum, but of that and of the long series of psychic processes which have been built up on it. It is a fundamental law of all organized tissues, and most conspicuously illustrated in the brain, that function not only depends upon structure, but ends by modifying it. Hence, morbid modifications of psychic processes may be initiated either in them or in the physical substratum. This is equivalent to the previous assertion that insanity may be determined either by a psychic or a somatic cause, but generally requires the concurrence of both. In the existing professional and popular reaction against the old peculiarities of the exclusively moral theory of insanity, these facts are often overlooked or misunderstood. The question of prophylaxis has become narrowed down to the question of prophylaxis in marriage. This is not only much too narrow, and the social difficulties in the way very great, but the rules for practice have been by no means worked out, and many of those which have been suggested are erroneous or superficial.

The fact that the previous constitution of the mental conception masses modifies the process of their falsification under the influence of mental disease, should suggest an effort to so build up this constitution that it may be fitted to resist strain. For the formation of the conception masses is far from being a spontaneous or self-directed process. No ideas can enter the forming mind except from without, from communication with its fellows, or from the transformation of sense impressions. It is therefore largely in our power to determine the nature of the ideas of any child who is thoroughly guarded from his cradle. Again, the will develops in the mould it makes for itself by successive volitions; these may to a considerable extent be commanded or contrived. It follows that, hand in hand with prophylactic treatment of the physical substratum of the inherited nervous organization, should go strenuous educational prophylaxis of the psychic processes. But there is needed a far-sighted, comprehensive, minute education, which should begin with the dawn of consciousness, and extend, if possible, through life. It should have a detailed objective or reason for each step, in the elementary lesions of the disease which menace the person, or in the elementary defects of his menaced constitution.

To assert that moral prophylaxis is useless because insanity is merely a symptom of physical disease, is to contradict the facts of the double nature and double origin of the psychoses which are admitted by the best authorities. Educational prophylaxis could only be expected to contribute one factor toward the solution of the problem; but it is one, and all the more worth considering, because at present it is so generally neglected. A more plausible objection is that the moral substratum of minds predisposed to insanity is peculiarly perverted, so that they are insusceptible of education. That it is precisely this insusceptibility which especially
manifests their predisposition. Finally, it may be alleged that the traits of character which exist in a person before an attack of insanity, can offer no guide for treatment, because in the attack these are all reversed.

This last objection is met by the answer that the prophylaxis of mental, as of somatic diseases, is to be directed, not to the symptoms of the malady, but to the constitutional defects which facilitate its invasion, and to the circumstances of the surrounding medium which become the occasioning cause. Thus, it is known that under a great weight of responsibility a cheerful-tempered, but feeble-willed person may break down into melancholia. The prophylactic training should therefore be directed, not toward making such a person more cheerful, but toward inuring him, by gradual practice, to bear responsibility. And so for other analogous cases. All cases, however, are not analogous. In a great many, especially where the mental disease develops gradually, its morbid features are seen to unfold, one by one, from those which have always existed. There is often a so-called "hypertrophy of character." This is especially the case in the great class of mental diseases which are associated with organic deterioration of the family constitution, in which each member of the family participates in varying degrees. This class is called by Krafft Ebing the psychic degenerations. The mental diseases of this class are often apparently spontaneous in origin.

Attacks of insanity occurring in persons with brains previously sound, with a minimum of predisposition, and under the influence of really powerful occasioning causes, are considered functional and relatively benign. They are called, in distinction from the first, psycho-neuroses. Their prognosis is relatively favorable. For, although quite capable of terminating in chronic mania or dementia, they tend, under favorable circumstances, to spontaneous recovery.

The psychic degenerations are often incurable. But, on the other hand, they are often stationary, remain through life without progressing to any dangerous degree, and are then to be regarded rather as defects than diseases. In some cases treatment, either moral or physical, can never accomplish more than palliation; in others it may be expected to avert the development of active disease out of the defect. Finally, in the most degraded forms of congenital moral insanity, the case is really insusceptible to education, and must be abandoned to permanent restraint. For these latter cases is really valid the objection against prophylactic education, urged on account of its impracticability. But these cases form only a portion of the immense number with which we are called upon to deal.

The ideal prophylaxis implies that in neuropathic families the entire life of each child, its physical and moral training, and every detail of its social surroundings, should be planned with a view to
PROPHYLAXIS OF INSANITY.—DR. JACOBI.

avert mental disease. According to the degree of predisposition, this is liable to occur spontaneously at ordinary physiological crises, as puberty, menstruation, pregnancy, parturition, lactation, the climacteric; or only under the influence of external causes. In the latter case, the far-sighted disposition of the social medium of a predisposed person may often avert an attack of insanity by averting the cause. It is evident that the far-sighted and self-controlled guardianship required should be entrusted to a person not sharing the family constitution; to the parent who may be exempt, or, if both are affected, to a person who is not a relative at all. For the present purpose only a word is needed in regard to the main details of physical prophylaxis. They are: abundance of nitrogenous food; daily cold bathing; pure air; daily exercise in it, especially by means of cultivation of the ground, the cardinal employment for the body and mind of neurotics. A fifth point of great importance is rest; equally so for an immediately threatened attack, and in the life-long management of susceptible persons. For them over-exhaustion and fatigue are always to be dreaded, and to these they are particularly prone, from the extremely deficient power of resistance of their nervous system. It is worth noticing that it is neuropathic families more than any others who are liable to neglect the foregoing precautions.

For effective moral prophylaxis, it is desirable that a certain amount of information be properly diffused, to facilitate the awakening of domestic solicitude, the recognition of incipient insanity, and of the slighter but significant marks of the insane temperament. This may prove as useful as it has already done in regard to scrofula, rachitis, tuberculosis, and other constitutional diseases.

Krafft Ebing ranks severe and congenital hysteria with the psychic degenerations, and shows it to be the forerunner of much real insanity.* Knowledge of this fact might do much to check the capricious and vacillating treatment to which youthful hysterical patients are generally subjected. On the other hand, in the permanent prophylaxis for adult life, which must so largely be committed to the patient, it is extremely useful to be aware of the relative benignity of the very forms of insanity which usually excite the most alarm. Acute melancholia, mania, and primary dementia are classed with the functional disorders or psycho-neuroses, tending, under favorable circumstance, to spontaneous recovery. This knowledge might help to avert at least those distressing suicides which are committed, not from insane impulses, but under the dread of impending insanity. They are far from proving that this has already set in, for it is really not irrational to choose death in preference to permanent dementia.

The following traits are signalized as characteristic of the neu-

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* This statement is not made in regard to acquired hysteria, symptomatic of uterine or other diseases.
ropathic constitution — constitution which affords the main physical and moral basis for the development of insanity. In neuropathic families the children early manifest a remarkable nervous excitability, with tendency to severe neurotic disorders at physiological crises, as convulsions during dentition, neuralgias at menstruation. The establishment of menstruation is often premature, often preceded and followed by profound chloro-anemia. The cerebral functions are easily disturbed, slight physical disorders being attended by somnolence, delirium, hallucinations. The nervous system seems to be everywhere hyperaesthetic. Reaction to either pleasing or displeasing impressions is excessive, there are abundant reflex neuralgias, vaso-motor irritations. Pallor, blushing, palpitations, precordial anxiety, are caused by trifling moral excitement, or by agents lowering the tone of the vaso-motor nerves, as heat or alcohol. The sexual instincts are precocious and often perverted. The establishment of puberty is often the sign for the development of spinal irritation, hysteria, or epilepsy. The psychic characteristics correspond. The disposition is strikingly irritable and touchy; psychic pain arises for trifling cause; at the least occasion the most vivid emotions are excited. The subjects of this temperament alternate rapidly from one extreme to the other; their sympathies and antipathies are alike intense; their entire life is passed between periods of exaltation and depression, leaving scarcely any room for healthy indifference. On the other hand, there is a remarkable inexcitability of ethical feeling. Vanity, egotism, and a jealous suspiciousness are common, and the temper is often violent. The mind is often obviously feeble, with few and monotonous ideas, and sluggish association of them. At other times ideas are readily excited, the imagination is active, even to the production of hallucinations; but mental activity is ineffective because of the rapidity with which it leads to exhaustion. There is no time to complete any thing before the energies flag. The will is equally deceptive in its apparent exuberance and real futility. Its capricious energy and innate weakness is a fit counterpart for the one-sided talent or even whimsical genius which often marks the intelligence.*

This disposition constitutes the moral substratum which, together with the physical constitution, affords the constitutional basis for psychic disease. In it two elements are conspicuous: a profound and often unconscious egotism, resulting from the predominance of the instincts over the faculties for external relations; and a constant ineffectiveness in the maintenance of these relations, — in other words, abnormal weakness of the will. These elements reappear in insane diseases. Egotism is the nucleus of the exactions of hysteria, and determines the form of all delusions, which, whether primary, or engendered from emotional insanity, invariably centre on the depression or exaltation of self.

* Abridged from Kraft Ebing.
The suspiciousness and violent temper so frequent in the neuro-pathic, develops easily into the technical delirium of persecution or of quarrelsome ness. The psychic hyperesthesia common to several psychoses, but typical of melancholia, depends, on the one hand, on the same primitive egotism; on the other hand, on the weakness of the will, on account of which the normal channel from feeling to action is blocked. Pent-up feeling is always hyperesthetic; psychic pain is the correlative of external ineffectiveness, even when not directly caused by it.

Diminished interest in external relations results in psychic anaesthesia, especially in regard to moral appreciations. This anaesthesia is again the direct correlative of the excess of instinctive and personal interests, and of the weakness of the will which fails to enlarge the scope of the personality, as it is naturally destined to do.

When the will is feeble, sluggish, inert, the tendency of the mind to sink under pressure, and especially under the weight of responsibility, is very great. “The fact of human freedom,” says Griesinger, “is the fact of the conflict in consciousness of opposing ideas, and of the termination of the strife by the conception mass representing the Ego, which assimilates part of the ideas and represses the rest.” Feeble natures cannot bear this conflict without excessive pain, to which, at last, they not unfrequently succumb. In melancholia, the consciousness of diminished will power is a prominent and most painful symptom of the morbid state. The feebleness of the will may be manifested, not by sluggishness, but by infinite caprice and incessant vacillations. This may reflect a torrent of incoherent ideas; or it may represent so rapid a transformation of an idea into an impulse, that the latter alone seems to exist. Here the channel from the internal to the external world is not obstructed; its resistance, on the contrary, is abnormally diminished; yet the volition is still ineffective. Effective volitions demand distinct and correct ideas of the external medium upon which they are to be expended. But one of the most essential elements of insanity, and of the constitution predisposing to it, is the diminution in the number, force, variety, and accuracy of the ideas held concerning the external world, and on the relations of the individual to it. This monotony of ideas is sometimes, before the attack, concealed behind desultory verbiage. Sometimes, during the immediate prodromata of an attack, it is temporarily replaced, even in feeble-minded people, by an unwonted vivacity and power. Completed delirium, however, is always monotonous. Correlated to the egotistic instinct, it always centres on the personality of the individual, which is outrageously oppressed or illimitably exalted. The ideas are few; their associations sluggish; memory and attention are weakened even to extinction.

A deficient power of attention is generally a marked charac-
teristic of the neuropathic state; it lies at the basis of the irritable impatience which is so frequent in it. This leads to the formation of loosely knit conception masses, ready to assimilate anomalous notions. The mind is naturally credulous; unapt for criticism. It offers less resistance than another to the invasion of false ideas.

Thus the three great elements in the moral substratum of a person predisposed to insanity, are: the egotistical predominance of the instincts over the faculties of reflection and external relation; the ineffectiveness of the will, even when this is impulsive or violent; the inaptitude for ideas, resulting in their poverty and imperfect combination. The whole nature is shrunken upon itself; there is not enough vital turgescence to expand it to its normal circumference, and to the points of contact of this with the external world. The cardinal point in the management of such natures is, therefore, the expansion of their shrunken individuality. This is to be effected by means of a strenuous educational system, directed at once toward the repression of the egotistical instincts, the enrichment and systematization of the ideas, and, through multiplication of acts and external relations, the energizing of the feeble will.

The scope of the method will be made clearer by some examples. Thus: grief is an efficient moral cause of insanity. That it does not more often render people insane, is indeed a remarkable proof of the resources of the healthy human organism. However various the occasions for grief, yet in so far as these all imply personal loss, the principle of their influence is always the same. The mind becomes so concentrated on the thought of this loss, that the latter acquires the ascendancy of a fixed idea. Apart from physical disease, the inability of diversion is great, in proportion to the habitual poverty and monotony of ideas; to the fewness of relations with the external world; to the preponderance of habitual interest in matters relating to self; to the inertness of the will, unable by vigorous action, to extend externally irritations of psychic pain. Similarly, when disappointment or humiliations, great or small, real or fancied, are the cause, or injuries, or the suspicion of injuries, the power of the predisposition and of the occasioning cause being constantly in inverse relation to each other, we reach a grade of exaggerated hysteria or hypochondria where the egotistical instincts become able of themselves to generate melancholy, irritability, and delusions.

In another class of causations, shock plays a prominent part. Inability to resist shock is partly proportioned to poverty of ideas, which permit overwhelming surprises; partly to habitually unrestrained emotionality; partly to the passivity which prevents quick reaction. Analogous is the effect of strain, of excessive anxiety, of long standing care and responsibilities. Healthy and justly proportioned indifference is essential to healthy equilibrium; an excess of sensibility over reflection or will power, predisposes
to insanity under sufficient irritation. All experience shows that an excess of egotistic sensibility, is far more dangerous than an excess of sympathy, the latter being indeed extremely rare in the neuropathic constitution. It may become a cause in non-constitutional insanity. Another line of causation is that in the direction of ideas, where the invasion of false ideas is facilitated by habits of credulity, superficial reasoning, loosely knit conception masses. An unreflecting enthusiasm easily embraces exciting doctrines, as in the various religious or political manias, or is carried away by suggestions which covertly appeal to the egotistic instincts, flattering or alarming them, or submits to incongruous beliefs, as in the so-called partial insanity or mono-mania.

In the cases where insanity develops in persons of great and trained intelligence, as in the famous examples of Comte and Rousseau, the intellect is not reached through intrinsic feebleness, but indirectly. Rousseau was the victim of a congenitally depraved organization, whose deterioration progressed regularly toward a final delirium of persecution and suicide. In the case of Comte, prolonged concentration of the intelligence upon a single set of ideas, so dangerously imitated the monotony of insanity, that the reason, mainly by this means, seems to have become temporarily overthrown. This case really serves to justify one of the cardinal points we have mentioned in the prophylactic method. We have no space for further illustrations, but detailed examination of the immediate etiology of many cases of insanity, constantly discovers more cases where this resolves itself into a simple failure of the psychic powers to continue their functions under the ordinary wear and tear of existence. These cases, possibly under deceptive appearances of ability, are all marked by innate feebleness.

Let us now consider in what way education may work against these constitutional defects.

Perhaps none of the details of an educational prophylaxis are foreign to the principles theoretically advocated for ordinary education. But in this they are applied, if at all, in a manner so lukewarm and vague as would render them useless for so grave a problem as the prophylaxis of insanity. To consider these principles in the order already enumerated, the repression of egotistic instincts demands effort in two directions. Negatively, these are to be atrophied by a studied atmosphere of indifference to caprice, violent tempers, ridiculous pretensions, exorbitant exactions; none of which are allowed to be gratified. In this permanent atmosphere, created by the mind controlling and guarding the child, he may learn to appreciate his insignificance relatively to the external world. Toward this and its interests he is secretly apathetic, except so far as they may be made subservient to his own vanity. The principle of justice, based on the simple fact of primitive equalities, must be profoundly in-wrought, by practical exercises, into the consciousness of the neurotic. He is naturally inclined
to submit every thing to the test of his sympathies and antipathies; and the cultivated habit of reference to simple justice instead, will save him from innumerable entanglements, perplexities, and agitations most dangerous to his mental equilibrium.

The multiplicity of human interests, the vastness and importance of the interests of the world, as compared with his own, may be impressed upon the child's imagination in many ways, if ingenuity be not lacking. The incidents utilized or contrived, necessarily vary with the age of the child, but the same complex end is always to be held in view: restoration of the normal proportion between egotistic instincts and faculties of relation, and excitation of healthful ideas through healthful practical experiences and association with the fortunes of his fellows. Sometimes, together with mental vivacity, sometimes with mental inertia, the mind of the neuropathic individual is apt to be really indifferent to intellectual relations; to knowledge for its own sake, to disinterested curiosity, the happiest appanage of a sound intelligence. Interested motives must be skilfully supplied, sufficiently to provide for the acquisition of knowledge essential to the enrichment of ideas, yet with caution, lest vanity and amour propre be unduly stimulated.

The acquisition of knowledge, the training in morals, the formation of habits of thought, must all be centred upon practical activities. It is the proper development of these which is to be relied upon to energize the feeble will; to accustom it to effectiveness by training to productive industry; to broaden and deepen the channels from internal concepts to impulses; to provide thus for the overflow of dangerous irritations; to check the lightness, frequent forerunner of insane impulse; to widen the range of interests and of correlative ideas, and hence of resource against shock, vexation, and misfortune; to moderate inordinate vanity by submitting its pretensions to practical tests; to regulate moods by habits of daily labor, and to enlarge the entire personality, for the future as well as the present, by insuring, from internal pressure, the creation of a permanent career. This latter element of prophylaxis might well save from insanity many of the "lazy and languishing young ladies," whom Mortimer Granville complains of as filling private insane asylums.

It is not enough to attempt to widen the range of ideas. In some directions, and unguarded, this proves simply disastrous to persons of innately feeble intelligence. They must be trained in the formation of practical concepts; associated as much as possible with practical facts, with sense impressions, and with experiences in action. Clearness, definiteness of ideas, their frequent association with images, afford no inconsiderable safeguard against morbid mental confusion. Similarly the careful training of the senses in various techniques contributes much toward the steady outward direction of nervous energies, which is needed to counteract the tendencies to internal concentration. In this connection, gymnastic training has a mental as well as physical influence. It
would be difficult to prove that such training of the periphery of the nervous system could counteract the development of hallucinations, which are caused by central irritation of the sensory centres. But it certainly lies in the line of such counteraction. If it be important to fill the mind with concrete ideas, it is at least as important that these be correct, and not liable to be uprooted in later life. This liability constitutes a real danger in the notions of popular theology, which are so loosely allowed to be acquired even by guardians who do not believe in them. To persons predisposed to insanity, the uprooting of fundamental ideas can by no means be performed with impunity. It is important to train such persons early in a sound and simple philosophy, which shall provide a firm basis for thought and life without inviting to speculative thinking.

Finally, since the object to be gained is firmness and strength for the mind in dealing with its own concepts, practical exercises in the elementary intellectual acts are extremely important. These are but feebly carried out in ordinary schools, because the object in view is not distinctly perceived or firmly grasped. The first signs of failing mental power are, loss of memory, of power of association of ideas, of summoning contrasting ideas into consciousness, of reproducing or comparing or criticising them. It is indicated, therefore, to train the mind in advance to profound habituation with these various processes. Such training will avail nothing when physical lesions have begun to destroy the intellectual mechanisms. But it may avail much in the cases where the integrity of these first becomes impaired from obstruction of function and psychic disability.

One other detail deserves notice, for it rarely receives attention. In minds predisposed to insanity there is often, perhaps always, a marked deficiency of elasticity. An impression sinks and remains; the mind cannot disengage itself nor recover its tone: it cannot pass quickly enough into the contrasting mood; a capacity to do this is the natural provision against strain; it probably corresponds to a law of rhythmic action in the physical mechanisms of thought. This capacity should, therefore, be carefully cultivated by encouraging alternations of attention at the first sign of fatigue. The contrary practice of forcing an immature mind to continued attention while under the influence of fatigue, instead of teaching it how to quickly change, is the habit of commonplace education. Injurious to all, it is especially so to persons predisposed to depressing forms of insanity. It exhausts still further the elasticity, in which they are naturally deficient. The management of the perverted instincts of neuropathic constitutions may, when these are advanced in deterioration, prove a hopeless task. At a less severe degree, however, many bad propensities may be held in check by a skilful combination of the methods of punishment, emulation and distracted attention.

One difficulty in guiding these cases generally lies in the fact
that their pathological nature is not early recognized. Children are incessantly moralized, whose minds do not contain any conceptions of morals, and only an imperfect mechanism for ethical functions. According to the degree of imperfection, such persons must be dealt with as animals, who can certainly be trained into habitual lines of conduct, even though destitute of the corresponding abstract ideas.

One morbid appetite calls for special mention, that, namely, for alcoholic liquors. This, like the others, is often manifested early in life, and, as known, is not only a symptom of a neuropathic constitution, but, when indulged, a potent occasional cause of insanity. The management of this appetite is a most difficult problem. It has been plausibly suggested that the permanent and moderate administration of alcohol in the form of beer, might, with other treatment, help to avert the development of the irresistible craving.

Such are the abstract principles of a system of treatment which, if seriously carried out, properly associated with physical treatment, and so arranged that every other consideration should be subordinated to the attainment of its ends, should prove of real value in helping to avert many cases of insanity. The physical and moral treatment of an actual attack, must be divided into: treatment of the (complex) cause; palliation of the symptoms as they arise; management of transition states. The etiology of an attack, when this can be traced, is, as has been said, nearly always complex. There is always both a physical state and a moral event or influence, both of which require to be removed.

It is foreign to our purpose to enumerate any of the bodily diseases which may become the proximate cause of an attack of insanity. They are so numerous that no patient's case can be decided on without a complete examination of every organ of his body. But there is one general condition, complex, in that it involves both body and mind, and which most commonly exists at the beginning of the psycho-neuroses. We mean some state of exhaustion which imperatively demands rest as the first element of treatment. In the profounder forms of melancholia, rest in bed is essential. Popular recognition of this is useful, because it would counteract the almost universal tendency to combat depression of spirits by travel, rapid change of scene, incessant amusement. These devices more often exhaust and confuse the patient than prove of real service. A single change of scene at the outset of the attack, is universally recognized as important. When the morbid irritations lie in the scenes immediately surrounding the patient, removal of the patient to another place, and among different people, may entirely fulfill the casual indication. But the routine application of this principle easily allows the real moral cause to be overlooked. Anxiety, humiliation, perplexity, disappointment, may be left to prey uninterruptedly on the mind of the patient in the calmest seclusion
of a whitewashed room at an asylum. The tact of the physician is to be first exerted in detecting the real subject with which the patient is preoccupied. A wholesale onslaught on the conditions which are supposed to worry him, resembles the advice formerly given at the beginning of every acute disease, while waiting for the diagnosis, "to clear out the system" by a good dose of calomel.

We once remember a case of melancholia in a girl brought on by her perplexed self-condemnation in fearing that through indecision, she had seemed to connive at a father's immoralities. This led to the common delusion of the unpardonable sin,—a delusion which, in itself, throws no light upon the real cause of remorse and perplexity. In this case, the precise etiology having been unravelled, removal of the patient from supposed responsibilities, effected a cure.

Treatment of the symptoms of mental diseases is subject to the same doubt that overhangs the symptomatic treatment of ordinary bodily diseases. We are generally unable to tell how far palliation of symptoms really modifies the course of the malady; or, in acute cases, shortens its duration. In the doubt, however, the attempt at palliation is always to be urged. The symptoms most prominently demanding it in the psychoses, are: psychic pain, in its various modifications of simple depression, gloom, apprehension, terror, remorse, irritability, excitement in all degrees, from simple exaltation to raving mania; perverted impulse; hallucinations of senses; delusion of ideas; exhaustion, as manifested either by apathy or incoherence. The risks of mischief, homicide, or suicide, cannot be called symptoms, but incidents to moods which are symptomatic of the disease. The bodily conditions which characteristically accompany the morbid mental states, are not the cause, but simply the physical aspect of the latter. They sometimes serve as useful guides to somatic medication; as the various marks of physical mal-nutrition, which often coexist with melancholia, will then indicate the necessity for rich food and certain tonics. In mania, however, indications furnished by physical appearances would often mislead, as they have misled, to a supposed necessity for depressing treatment. It is in etiological, and other considerations, that we have learned to discover cerebral mal-nutrition in the brain of maniacs; and to recognize that cerebral hyperaemia is nearly always secondary, and the result of vaso-motor paralysis.

Into the question of treatment of these conditions by drugs, we do not here enter. We are probably only on the threshold of an inquiry into the value of many agents capable of most subtle action on the nervous tissues. We cannot refrain, however, from a passing notice of the strange misconception, which at present leads so many English alienists to discuss opium, merely as a means of "chemical restraint." The French and German advocates of opium medication rely upon it, not to restrain excitement,
but to act on the perverted nutrition of the brain. That food, when nutritious, palatable, agreeably administered, and really digested, is the most powerful sedative and hypnotic; and that hydrotherapeutic treatment, deprived of its ridiculous pretensions as a moral agent, is a powerful nerve tonic, and, as such, often required, are propositions which, though practically often neglected, are not theoretically disputed. Upon them we need not now dwell.

Returning to the moral aspect of the case, we find at the outset the question of palliation of the so frequent symptom, moral depression. The method of palliation depends on two psychological principles,—on the effect of companionship, and on the effect of diverted attention. In certain grades or periods of disease (as melancholia attonita), neither will avail. But, in innumerable other cases, a watchful attendant would discover opportunities for intervention; would feel that the patient instinctively craved the firm and hopeful contradiction of his terror,—or, at least, in the agony of nightmare, was reaching out blindly for the comforting pressure of a human hand. The air of relief and astonishment with which our unhappy victim of melancholia will sometimes greet the voice or touch that recalls him from the holgobblins of his disordered fancy, proves that he is susceptible to the soothing influence. Among such soothing influences it is rather strange that the traditional fame of music does not lead to its more frequent employment as a palliative in melancholia. It subtly penetrates the feelings through the sense most closely associated with them, at the times when the sense of sight seems clouded to the outside world. It has, unquestionably, a powerful influence in changing the mental mood; and the more so, the more it is purely instructive. Perhaps, one day, for the same reason, a more refined therapeutics will add to music the impressions of systematically combined odors—at least, for naturally sensitive organizations.

Diversion of attention is only possible in the milder shades or moods of melancholia, or in the melancholy fits of hysterical or delusional insanity. But, as these are very numerous, the occasions for trying the method are very frequent. To be of use it must be minutely and intelligently individualized. Occupations must not be forced on the patient; he must be watched for the least sign of interest in this or that, and the clue followed up at once.

In many cases the principle guiding the choice is that of selecting objects which are fitted to make lively and brilliant impressions on the senses. It is by inarticulate musical sounds the sense of hearing is to be appealed to when the patient cannot be roused to exertion; it is by the sense of sight, particularly by appropriate combinations of color, such as are presented by the kindergarten occupations, by embroideries with brilliant wools, even by
childish paint boxes, that at another time, when less profoundly immersed in gloom, the same patient may be beguiled from himself. In other cases than these, the forced attempt at cheerfulness, even the bright colors, would increase the irritation of the patient. An artist in feeling and color would learn how to adjust the surroundings precisely to the mood. In some cases the patient must be left for a while to the darkness and solitude he craves. In others, compulsory exercise in the open air may have an effect analogous to that of a brisk walk or ride on horseback, in driving away the blues from a person not reckoned insane. The hyperesthesia which so frequently exists, and is so frequent a starting-point of hallucinations, affords scope for much ingenuity in modifying sense impressions or in nicely adjusting the sensitive media. Undoubtedly this necessity may vary with the original delicacy of the sense perceptions, and with the training they have received; but, on the other hand, in virtue of the hyperesthesia, original differences are lessened. The trilling circumstances which often determine hallucinations, or at least fix their definite form, suggest that a persevering ingenuity might often find the means of modifying them.

The symptom, irritability, does not always require soothing treatment. A well devised distraction, sometimes an energetic scolding, almost always, when the physical strength admits of it, brisk exercise in the open air, are far more suitable. The irritability of hysterical conditions is aggravated by petting and solicitude. Irritability always means the tension of nerves overcharged with impressions which can find no issue in movements or actions. Movement is the physiological remedy for irritability. It is the remedy sought by nature in the higher grades of irritability, where the patient is no longer conscious of the tension, in maniacal excitement and mania. On scarcely any point has recent discussion throughout the civilized world been more abundant and fruitful than this. It has been well established that mental excitement is necessarily aggravated by bodily restraint, and tends, on physiological laws, to calm itself by bodily violence. Ingenuity has been well expended in devising primitive, violent, and rhythmic exercises for periods of excitement; or in facilitating the running, leaping, gesticulations, to which the patients naturally abandon themselves. The destructive tendencies, which are matters of quite secondary importance, are to be provided against by any thing but the naive and childish expedient of tying the patient's hands. "The maniacs," observes Krafft Ebing, "who destroy everything and pull their clothes off, may be allowed to run about naked in a well-warmed room, with hay or horse hair for covering when they feel the need of it!"

Treatment of delusions is a very difficult problem, and, as it would appear, by no means solved by the best authorities. No one now believes with Leuret that it is desirable to order a patient
to surrender his delusions, under penalty of a ducking from the shower bath. However, firm but rather indifferent contradiction is recommended, whenever the patient chooses to bring forward the subject, but argument is disallowed. The great principle is palliation, distraction of the mind by employment on other themes. Such employment tends to wrench the mind away from the dangerous fixity of its preoccupation. An atmosphere of indifference, sharpened by occasional ridicule and contempt, tends to atrophy delusions when these are not too formally systematized, or too deep-rooted.

The question of occupation is indeed the great question of the moral treatment of insanity. But what a question it is, and how little it is answered by wholesale committals to laundry work or lint scraping, to knitting or digging! Rightly understood, it means the creation around each patient of a new world, built up out of his own awakened and directed activities. Whether these are useful or not, is of trivial consequence. They are intended to distract the thoughts from a monotonous train of ideas; to enlarge the obstructed will channels from the inner to the outer world; to restore yet moderate self-complacency, by definite self-achievements in that outer world; to reestablish healthful currents of social feeling, by the habit of work in common with others. But for these purposes, the work must be accurately adapted to the taste of the patient. It must vary frequently, sometimes every hour of the day. It must exercise the weakened faculties without straining them. It must excite interest, often serve to gratify the passions of emulation, vanity, 

amour propre. It must be for each case, a minutely studied, philosophically planned prescription, carried out by means of such patience and ingenuity on the part of the attendant, as should combine the tact of a nurse, of a teacher, and of a mother with her child.

Space, of course, fails to indicate the occupations possible, I do not say for insane asylums, but for the insane. The analogy of the mental state with that of childhood must never be forgotten; and toy stores might often be ransacked to advantage. There is an essential difference worth noting, however, between games and occupations proper; the latter alone result in a tangible product. This tangible product is very important. In certain cases, as during convalescence from acute dementia, the heaping up of stones into definite piles, may be an useful occupation. At the other extremity of the scale, among educated patients, studies in natural history may be fragmentarily pursued, at least on the concrete side of making and classifying collections of natural objects, for the sciences of botany, conchology, mineralogy, and the like. In other cases, the pursuit of accomplishments, music, painting, embroidery, is perfectly feasible. It has been found possible, in an asylum for the uneducated insane, to open a regular school for elementary instruction in reading, writing, arithmetic, etc. But
the varied and delightful occupations afforded by farming, horticulture, and fruit culture, should be the fundamental employment for the insane, as for neurotics. At present these are scarcely utilized, except when a motive for economy stimulates the languid interest in the possible therapeutic efficacy of such measures. And for women, the larger class of insane patients, they are not utilized at all.

An element of moral treatment which must be combined with all others, consists in the ascendancy over the mind of the patient which should be obtained by his personal attendant. This is required for the most different purposes, of which obedience, for the sake of convenience, is only one. It is a good thing for an insane mind to feel itself commanded in its weakness by a sane one. It is good that it become accustomed to rely upon guidance, —submissive to direction,—afraid, if need be, of certain punishments. But how carefully must these be arranged? The discipline must invariably be that which would be judiciously adopted for refractory children, as remote as possible from the idea of criminal discipline, with which in asylums it is too often half consciously associated; equally remote also from the irritating mixture of scolding and compliance, which is apt to surround patients in their own families. But to make this reliance on direction worth anything, the guide must have fertile and abundant purposes to be carried out. It is again the attitude of a child to its mother that alone furnish the standard of comparison. A habit must be bred in the patient's mind of instinctively turning to his attendant to ask what was going to be done at this hour, and this, or, at least, of expecting something to be suggested. The healthy mind becomes thus the permanent source of activities that may gradually quicken the benumbed faculties of the sick one.

Palliation of mental symptoms is to be aimed at as much as possible, for the same reason that we try to palliate the symptoms of fevers or other acute diseases. It is always to be feared that the mere continuance of a morbid function may result in collapse by destruction of its mechanism. The same danger of exhaustion is imminent in the transition periods of mental disease, and renders them so critical. It is not the breaking down of the body which is then to be feared, but the collapse of the delicate mechanisms which serve the mind. They may be really destroyed during the acute stages of the disease, or their functions, unawakened from long torpor, may be allowed to sink into extinction. The danger of quietly drifting to dementia has been pointed out by more than one observer.

For this reason, a patient arrived at a period of mental exhaustion, as indicated by apathy or by incoherence, requires to be watched with the most minute care. The faculties may awaken; they may sink into endless torpor. To prevent the latter calamity, the indication is to approach each faculty with a suitable stimulus.
in just sufficient proportion. Simple sense impressions should be first awakened; then combined; reminiscences cautiously aroused; ideas gradually excited. It is at this time that change of scene, rather frequently but not too hurriedly repeated, is most important. Too often is the change merely made, when at all, from one room in the asylum to another; or, with another extreme of violence, from the asylum brusquely back to the family. The importance of nicely graduating the transitions is much insisted upon by authorities.

From the standpoint of the foregoing sketch it is pertinent to inquire how far it can be possible, with the best intentions, for any such minutely individualized treatment to be applied at an asylum with a population of several hundred patients. Is there any security that even their bodily diseases can be efficiently attended to? And yet, if an insane patient is to be treated at all, it is difficult to see how any thing short of this minute individualization can be worth speaking of.

For many cases there seems no good reason why the treatment of a mental, as of a physical disease, should not be best carried out by a private physician, seconded by an intelligent and specially trained nurse, assuming, of course, that both could be found. Two exigencies, however, necessitate special arrangements: provision for states of excitement, and provision for the occasional association with a certain number of other persons undergoing the same moral treatment. Is it not possible that these might be met by some such arrangement as the following: Groups of detached houses, varying in size with the district they supply, but always in the country, should constitute species of colonies. In these, patients might be placed temporarily by their own physicians, who, in consultation with the resident, would continue, when desired, to retain the control and management of the case. This would provide for the individual care, rarely obtainable except in private practice; also, for the frequent changes in the habit and regime of the patient, which are needed to prevent disastrous routine. At the same time could be obtained the moral discipline needed for employment, drill, gymnastics, etc, which is hardly possible except with selected groups of patients.

DEBATE ON INSANITY.

Professor Harris: It is clear that man uses corporeal senses as instruments with which to learn the external world. Nerves are the avenues of sense impressions. Nerves receive impressions from the external world, and the mind infers the properties and qualities of existence from the character and quality of the nerve impressions. Now it is obvious that, besides sound, healthy nerve
function, there may be diseased function. In case of disease the nerve may be sensitive to its corporeal environment as well as to the external world. The lesions of diseased nerves will seem to the mind to be impressions from without, and will be interpreted as perceptions of external existences; thus, severed limbs often seem to be felt even in the lost extremities, because the nerve is affected at its end in the stump of the amputated limb. These lesions of diseased nerves will, most likely, be more vivid than in healthy nerves.

Not only is the sense perception conducted through corporeal organs in its first perception, but former perception is also recalled by means of corporeal activity which is caused, more or less, by the excitation of the will. Recollection is, like sense-perception, a seizure of a direct, immediate, particular fact or object, and not an apprehension of something general or universal. Not only can the effect of a former lesion on the sense organ be renewed at will, through the act of recollection, but, by power of the will, the sense organ may be framed into original shapes called fancies, which seem, when felt to be directly controlled by the will, to be purely subjective. But disease of the brain can also produce fancies not dependent on the will, called "fixed ideas" (idées fixes). These form hallucinations, the second form of insanity.

This brain disease may arise from general causes, or it may be produced directly by the brooding of the mind upon an object or event, important to it, for so long a time that partial congestion of the brain organ supervenes, and inflammation causes the image to persist in the mind through most or all of its experiences. A permanent image existing through the mental experience furnishes a sort of axis for this experience. And the mind dwells on that image, and finds the relations of that to all of its experience; in fact giving unity to its experience through that image. Hence the image comes to be attached closely to the personal
identity, and, if the image of a person, may often be adopted as
the supposed identity of the person himself,—who then believes
himself to be St. Paul, Napoleon, or even Jesus Christ.
In all cases of hallucination, as well as in all cases of delirium,
there is primarily a diseased nervous organism, which, instead of
being set into activity purely ab extra, is organically put in action
by the disease on its own account, and furnishes illusions. The
soul is rational but its data are incorrect. Insanity, therefore,
does not offer any support to the materialistic theory of the mind,
but the contrary. If the mind itself were diseased, its categories
of causality, quantity, quality, space, and time, would be affected,
and it would invert its rational procedures, and omit some phases,
and reason incorrectly from data. But of this we have no evi-
dence. The disease appertains to the body, and affects only the
data of relation to the external world. From these theoretic
principles some results follow as regards the treatment of insanity:
I. The disease of the nerves—inflammation or whatever it is—
should be removed.
II. The mind should never be allowed to brood long at a time
over objects and events. Diversion is essential to the treatment
of insanity.
III. In case of chronic morbid lesion, which produces the per-
sistent presence of some image, there should be attempts to lead out
from this image to its environment, and thus to change its being by
development of the conception, and development as comes from
growth of ideas. The relations should be often canvassed, and
the reason encouraged to infer results, near and remote. Some-
times such a lesion would be cured by creating a new one of equal
importance by a fright.
The science and art of creating new mental operations should
be studied in order properly to treat the insane. These can arise
from without, through bodily disease, and within, through self-
determination of the mind, which chooses to brood over an image.
Both of these methods should be used to controvert diseased brain
spectres. From the fact that drugs have the power to produce
mental spectres, it has been inferred that the mind is no self-
determining entity, but a product of bodily functions. The distinc-
tion between sense-data and the process of inference and will,
removes this materialistic implication. The sense-data are all
corporeal, and may be sound and valid, or may be only delusive, as
in case of drug-excitement of the nerves. The mind infers and
wills in view of its data, whether real or delusive. Moreover, the mind through its self-determination, in case of brooding, can even create the disease, which gives rise to hallucination.

Prof. Harris's theory of insanity was called in question by Dr. Seguin, and the chairman of the session, Mr. Eaton, and some discussion followed in regard to the observed facts and philosophic laws cited by Prof. Harris. Dr. Channing, leaving this discussion as important, but not within his department, said in substance:

Dr. Channing: All persons who heard it must recognize the great value of Dr. Jacobi's paper, as a contribution to psychological medicine. He had not before seen, in American literature, so careful a study of the early phases of insanity. It was characterized by the thoroughness and closeness of observation peculiar to the Germans. In regard to the home treatment of cases of insanity, it would work very well in a small percentage of quiet cases, where no change was necessary; Dr. Jacobi herself, however, emphasizes the necessity of change in nearly all instances, and this brings us at once to look at the practical side of the question. The vast body of insane persons are practically paupers; that is, persons who can pay nothing toward their own support. They are a burden on the State. Now the State cannot place them in small private institutions, where the treatment most closely resembles that of home; neither can it send them to the large private hospitals; for at both these places the expense is too great. The only alternative, therefore, that remains, is to give them the desired change by placing them together in large State institutions, under the best possible management. This general principle for the pauper class must obtain through all time, but for the rich and middle classes, a more varied arrangement will be possible. "In my own experience," said Dr. Channing, "I can hardly remember a case of melancholia where it seemed advisable to treat the patient by leaving him in bed, unless the degree of exhaustion was very unusual. Melancholics are generally so profoundly buried in the ego, that continual efforts must be made to stimulate and hold their attention, and to bridge over the fatal period; when, if left to themselves, their identity is lost, perhaps, never to return; and it is at this time that physical exertion is most important, modified, of course, to suit the circumstances of each case."

Dr. Channing, also, submitted the following letter from Dr. Hamilton, of Mobile, Alabama:

WALTER CHANNING, M. D.

Dear Sir,—Your note containing an invitation to visit Saratoga on the 7th of September, and take part in the debates of Health Department, reached me this morning. In reply, I am sorry to be
oblided to say, that my professional engagements are such, that it will be utterly out of my power to be present on that occasion, as I am well aware, very much to my loss. I am glad to see by the programme, that the question of temperance, in its legal aspects, is to occupy a good part of the time and attention of the Department of Jurisprudence; and would be glad to see the same subject, from the medical point of view, taken up and examined exhaustively by the Department of Health. The question of inebriety, its effects, and proper mode of treatment, is, to my mind, the great and important question of the day; it underlies many of the important subjects, that engage the attention of the Social Science Association,—notably the questions of insanity, pauperism and crime.

I had, a day or two since, the pleasure of reading the report of Dr. Baneroft, superintendent of the New Hampshire Insane Asylum, to his trustees. I was much pleased with some ideas he advanced in regard to the difference in treatment required in different cases; he argued that there was as much difference in the character of the insane as in the sane, and that to be successful required a careful study of each individual case; that there should be a great deal of attention to their surroundings in reference to association, &c.—not mixing the ignorant with the cultivated, the gross and obscene with the refined and pure; and he is making an effort in the construction of the buildings and surroundings to carry out his ideas. At this time it is too much to expect that in large public institutions this can yet be carried out; but when we recollect what the condition and surroundings of insane hospitals were some fifty or more years since, and the treatment of the poor demented sufferers, and then look at the progress that has been made, the humane, Christian influences that surround and comfort them today, we may well be hopeful, ever striving to press on to higher and higher excellence.

J. C. HAMILTON.

MR. SANDBORN said, that he entirely agreed with Dr. Channing concerning the value of the elaborate paper just read. As a theory of incipient insanity, with practical suggestions for the prevention and the early treatment of this great evil, Dr. Jacobi’s treatise stands almost alone in the American literature of the subject; and reminds us rather of those exhaustive German studies with which she has evidently been so familiar. He should incline, however, to the theory of insanity so acutely stated by Prof. Harris, in the points where it varied from Dr. Jacobi’s. His own attention was daily called rather to the practical treatment of established cases of insanity than to any theory of the disease, however philosophical. In respect to the suggestion that the insane asylum was not the best place for insane persons of every description, he quite agreed with the paper; but, on the other hand, it should be consid-
ered, that, for the great majority of cases, as Dr. Channing has said, there is no other practicable place of resort than the insane hospital or asylum. It would be found quite impossible to carry out in more than one case in twenty, at present, the suggestions as to private treatment which the paper contained; because the pecuniary means available in most cases would not permit it. It is true, as Dr. Channing has intimated, that nearly or quite three-fourths of all our insane are practically paupers, and that the property of those insane persons who are at first self-supporting is rapidly diminished by this very condition of insanity, and the expense which it involves. Yet the paper would do great good in calling attention to what is possible in the most favored cases,—and what will become more and more possible for all, if the subject is carefully studied in the direction pointed out by Dr. Jacobi.

[The General Secretary prints below, as bearing directly upon the subject treated, the full report of remarks made by Miss Margaret A. Cleaves, M. D., at the Conference of Charities in Boston, July 25, 1881. A report of her remarks printed on pages 27 and 28 of the Proceedings of that Conference, which have been sent to the members of this Association, did not receive the final corrections of Dr. Cleaves, and it is therefore due to her to furnish the members of the Association with a more exact report; which is here given.]

DR. CLEAVES ON THE TREATMENT OF INSANITY BY WOMEN.

It was not my intention to say anything, at this time, concerning my work at Harrisburg, or the movement in which I am interested, and I would not now, had not Mr. Sanborn called upon me. I feel that I have been engaged in the work for too short a time to formulate my opinions, or demonstrate the success of women as physicians to the female insane. This, however, I am prepared to assert,—that my experience of now nearly eleven months, has fully corroborated the views which I expressed before this Conference of Charities, at its meeting in Chicago two years since, viz., that diseases peculiar to women exist in a large proportion of cases among insane women in our hospitals. I have never yet missed finding the special trouble in the case of any patient whom I have made the subject of investigation, and, during the past ten months, with an average of about two hundred patients, I have treated at least fifty special cases. These could only be relieved by special treatment, which, because of the mental condition of the patient, could best be given by a physician of the same sex.

In several cases mental recovery ensued where it was believed
by the male physician (who knew the cases well before I assumed charge of them), that they would not have recovered without special treatment. Their mental recovery was directly traceable to recovery from the local trouble. Others have undergone decided mental improvement as a result of the improved or recovered local condition, while in others the result has only been to relieve the local trouble. I do not think that we are to witness any marked increase in the number of recoveries from this cause, but I hold that, no matter what the result, it is the duty of physicians to the insane to relieve or remove, if in their power, every physical disability which may exist.

In answer to the question to which Dr. Bennet refers in her letter to Mr. Sanborn, I also answer in the negative. Insane women can be as readily controlled by physicians of their own sex as by men.

I am confirmed in the opinion (which I have held for some time) that there is plenty of work for women as physicians among insane women. The question is, what shall be their position in hospitals. My experience has convinced me that it must be one of two, viz., either as assistant physicians, or in control of separate hospitals for insane women. It is an unfortunate, but at the same time a well recognized fact, that there are very few hospital superintendents, at present, who would give to a female assistant the opportunity, unhampered, of doing all that exists to be done for insane women by a physician of their own sex; were there always men in charge, who would cordially work and cooperate with them, then the question would have reached one satisfactory solution. That not being the case, the alternative is, it seems to me, to place insane women in separate hospitals under the exclusive control of physicians of their own sex. I fully agree with Mr. Sanborn and also with many others, that an institution to be successful can not have two heads, much less three.

At Harrisburg, there is a superintendant, who has charge of all general matters (attending also to the legal admission and discharge of female patients), and who is the physician-in-chief of the male department. I have the entire medical control of the female patients, and all that that necessarily involves in such an institution. There is also a steward, as in the ordinary hospital organization.

At Norristown, there is a physician-in-chief of the male department, and a physician-in-chief of the female department, whose position and duties are identical. Then there is the steward for general business, while the executive power rests with the Board of Trustees, who, thus far have taken an active and intelligent interest in the institution. If they continue to do so, I doubt not that the success of the institution will be insured. I believe our organization at Harrisburg to be wrong, because of its duality, and I should regret seeing another hospital organized on the same plan. Despite our dual organization, however, it has
been our constant effort to preserve the unity of the institution. Dr. Gerhard, the present superintendent, has, by his generous and untiring efforts, contributed largely to this result, and also by his cordial cooperation with me in my work, rendered me valuable assistance. His best endeavor has been given to the advancement and success of women's work in the hospital at Harrisburg. Yet the plan of organization is a wrong one, and while it may be successful in exceptional instances, it should not be adopted generally, for in it are the very germs of failure. The matter of separate hospitals for insane women, under the exclusive care of women physicians, has engaged my attention quite a little of late; and the larger my experience the more am I convinced that in such separate organizations, under their exclusive control, women will develop their highest and best usefulness, and attain to the complete success in the care and treatment of insane women. A woman never does her work as a man does. It must always be done in a woman's way; hence she will have her best chance to do it well in separate hospitals. The establishment of these can only come about very gradually. There are comparatively few women as yet in the medical profession. Of those who study, quite a number never practice, and again but a small proportion of these are calculated for physicians in insane hospitals. As is right, most women will marry,—for after all it is in marriage and domestic life that women reaches, or should reach, her highest and truest happiness. Women who are to be physicians in hospitals for the insane, must give up all else for their work. If they are to make it successful they must give to it every effort, their highest and best endeavor, which is only possible with undivided purpose. After a longer lapse of time, I shall be better prepared to say whether my work at Harrisburg, or the work of women in hospitals is to be an assured success. I recognize the fact that it is yet but an experiment,—an experiment however, which I believe to possess inherently the quality of right, and consequently the seeds of success. As yet, I feel that we have done but little. Whether we shall ever attain our grand ideal, time only will reveal.
PAPERS OF THE SOCIAL ECONOMY DEPARTMENT.

I. HOMES FOR THE PEOPLE.

A REPORT BY ROBERT TREAT PAINE, JR., OF BOSTON.

(Read Friday, Sept. 9, 1881.)

The subject of "Homes for the People," is one of transcendent importance, not only to the masses of the people to be housed in them, but to the whole body politic. Nothing else has so close, so constant, and so influential a relation to the welfare and prosperity, the health, morals and character of our working classes, and especially of their children. Nor is this subject one merely of sentiment or talk. It is very practical, and this because so much can be actually done, and is being done:—

I. Not only in the way of model tenement houses, to benefit a few fortunate tenants,

II. but to raise the standard of public judgment, which creates and guides boards of health and both compels and aids them to exact more rigid compliance with sound sanitary rules by owners and landlords of tenement house property,—a class, which if it includes some Octavia Hills, is far more often too reckless of health and avaricious of gain.

The Board of Health, in Boston, responded to the request of the Associated Charities, with a prompt and cordial promise of aid whenever asked, and desired all our visitors to inform them whenever they found any tenement needing action by the Board of Health.

III. The renovation of the thousands of tenement houses of our cities demands unceasing and increasing care.

Old houses sink into decay, where neglect by tenants as well as by landlords, makes them often too foul for human life. Charitable workers everywhere discover that foul homes are a source of crime and degradation, which it is hopeless to contend with. The latest discussion of the charitable system of a large city falling under my eye is by Rev. E. R. Donehoo, well known as the head of the private relief system of Pittsburg, who writes, August 15, 1881:

"Give a man good wages, and then oblige him to live in a filthy hovel, such as are found in any part of this city, and you may confidently calculate on making him, first of all, improvident, then intemperate, and, last of all, a miserable pauper."
This judgment, and like facts, are true of all our great cities. I will not try to state any methods by which this fatal current may be checked and a reform compelled; a matter of infinite importance, or all our charity work is vain, and our prisons insufficient and our hospitals too small and few. But I ask the judgment of this Association, whether any measures are so important for the very lowest classes, as those which will compel renovation and purification of the low tenement houses of cities, inhabited by the most wretched of our people. If this be true, then every good citizen may well devote a part of his best thought to see what practical action is possible, and how it can be effected, so that reforms may be enforced before it is too late. At some future meetings of this Association, I trust we may gain valuable knowledge on this subject.

In large cities, many workingmen of sterling character and thrifty habits, are obliged to live near their work where houses are too costly for them to own, so that they must perforce be tenants. It is for this class that efforts are made by philanthropic business companies in London, New York, Boston, and other places, to furnish healthful and attractive tenements in model lodging houses. The experiment of the Improved Dwellings Association of New York will be watched with deep interest. They are building and will soon complete three blocks of houses covering about an acre on 71st and 72d streets, and First avenue, and containing besides twelve stores, 200 tenements fitted with conveniences for housekeeping. They aim not merely to benefit the fortunate occupants, but hope to show that well built tenements are a good investment in New York, as Sir Sydney Waterlow has demonstrated in London, and so to influence the investment of capital in this direction.

A paper on this subject some years ago, gave an account of the work in Boston of taking charge of the biggest and worst tenement barrack there, cleansing it and subjecting it to the good influences of a kind agent under interested gentlemen and ladies, and of the gratifying results upon the character of its occupants. Another like effort has come under my knowledge this past year, conducted by a wise and benevolent lady, with marked success, not only as a business, which is always important, but also in gaining and exerting a wonderful influence over tenants, of the lowest classes, degraded in all the relations of life.
I have here the report of a lady placed in charge of some large tenement house properties, in the worst section of New York, belonging to a Society, which takes them with the benevolent aim, not only to renovate them, but to prove how much may be done to help even drunken and degraded tenants to a better life. This also, is a successful business operation. A few extracts will show the missionary spirit in which Mrs. Miles has taken up this work, and what she has achieved:

_Extracts from Letters of Mrs. N. Miles to R. Fulton Cutting,_
_March 11th, 1880._

Mr. Cutting and a friend visited the "court" with me, yesterday. Mr. Cutting was thoroughly disappointed, and so was I (but agreeably so), there was really so little left of the "Gotham court," as you and I had seen it, a month ago. In house "B," you will remember the shattered windows on the first floor, and the dreadful room, in which Mrs. Burke was, also, Mrs. Moore, Mrs. Sullivan, and the woman McGuire,—Mrs. Burke, who had not been sober for six weeks when you saw her, on the day of her baby's funeral; you will also recollect a curious bundle in the corner of the room, which, upon investigation, proved to be Mrs. Burke, who is since dead. She promised the priest and myself, upon our visit, that she would drink no more; the poor thing was faithful to her promise, and went to the hospital, where, doubtless, the sudden total abstinence hastened her death. The neighbors say, "God's blessing will be upon me, because I was the means of her dying sober."

That the people have been lifted and morally elevated in the course of the year, there can be no doubt. Your remark upon the occasion of your visit, "Where are the poor people?" was to me the most satisfactory proof that this result had been obtained. That they have never grown restless under the constant supervision, my knowledge that on several occasions my people had been offered rooms at less money, but preferred remaining where they were, and the fact that Mulberry street (where the rule is more stringent) has now never a vacant apartment,—are all proofs positive to me, that these people do appreciate this movement in their behalf. As a missionary, I have at all times been a welcome visitor, and they are always ready and glad to hear "the word;" and, when trouble comes to them, I am the first one to whom they apply. When I consider that I have the oversight of 176 families, and from fifty to sixty mothers of my nursery children, 100 children in our Harlem Mission School, from thirty-five to forty in my gospel meetings, I am perfectly surprised at the very small amount of temporal aid for which I am asked; this is to me another proof that the result of our work is a good one. Inasmuch as
now, if any are compelled to ask me for assistance, they do it
shrinkingly, and not as before, demand it as a right.

Since February 1st, the Seammel street property has claimed
almost exclusively my personal supervision, and I trust, not with­
oout effect. The place, I am told, has improved vastly in the last
year; not as many loungers on the corners, less destruction of
property, and the inmates are more tidy in their homes; all speak
highly of the efforts of Mrs. Miles for their good; her uniform
kindness and her generous sympathy; many of my visits have been
as a missionary; I hope in this way to gain their confidence, and
ultimately do them much good. I am known among them as Mrs.
Miles’ lady; I have been enabled to get work for two boys, and taken
one to the public school. I went to see the model tenement, “The
Monroe,” very fine exterior, rooms small; fifteen tenants, one of
whom they have been obliged to eject already. Some very dirty
stairs and a lager bier saloon, renting for $600.

Extracts from Report of Mrs. N. Miles, to R. Fulton Cutting,
November 4, 1880.

“As soon after taking the ‘court,’ as I felt I dared, I forbid
any child going for beer, or other stimulant; for months, this
required constant watchfulness, and, day after day, during the
intense heat of the summer, I never left the court until after one
o’clock, so that the rule might not be broken during dinner hour.
I have several times gone to the saloon with the child, put the can
of beer on the counter, and warned the proprietor not to repeat
the offence; shortly after, the father would come quietly down the
alley and get the can of beer himself. I invariably met him, and
in no single instance, did they dispute the justice of my act. One
father, when the child came back without the beer, jumped up in a
rage, and was going to say terrible things to Mrs. Miles; he came
into the office like an angry bear, and left it, as he told Dr. Miles,
with tears in his eyes.

“When last Mr. Cutting went with me through the court, he
remarked, the appearance of the people seemed changed; the
improvement is much more perceptible now: we have not had a fight
of any kind for three weeks, and very little unseemly or loud talk­
ing. This improvement, I think, is attributable to several causes:
1st. An answer to earnest and constant prayer. 2d. The influence
of summer excursions. 3rd. Their appreciation of medical atten­tion
and comfort when necessary. 4th. The prohibition to the
children bringing stimulants, and, 5th. Constant personal influence
and intercourse with them. Our laundries have been of incalcula­
ble benefit; there had never before been so much bedding washed
as during the past summer; the mothers and children were allowed
the free use of the tubs for bathing purposes, which privilege
they gladly accepted. I conscientiously believe there is no lower
class of people than some of those with whom I have been in con-
tact in Gotham court; notwithstanding, it is quite noticeable that the tenants generally are much more cleanly in their habits (although there is, of course, still great room for improvement). We shall open an Industrial School in the court on Saturday, 13th inst. Three ladies from St. Anne's Church, Brooklyn, have kindly volunteered to help. I feel that this will be a great adjunct to our work of improvement. That the court is much quieter at night there is little doubt; one of the women said to me recently, "It is getting just like the country, and hard working people can sleep now."

"In the Scammel street property we have fifty-three families, as against thirty-two, when we took possession; the highest rents being $10, the lowest $6.50. During the time I have had it only four of the old tenants have left; one, whose business moved up town, one because I was so 'particular,' one wanted more room and one for cheaper rent. Several have come, stayed a short time and left again, for various causes; the majority of the tenants, I can safely say, have steadily improved; a few have made spasmodic efforts, while one or two stand still. What we have most to contend with in Scammel street, as in Gotham court, is the outside rowdism. You will scarcely credit it when I say some of the 'Border gang' made application to me for one of the vacant stores for a club-room. They have taken rooms opposite, but from even these I have not so much to dread, as from the ragamuffin boys, who are perfectly lawless. I have no protection for the property, whatever, from the police; they laugh at the deprivations committed, sometimes under their immediate observation.

"I find the Italians a well ordered, gentle and obedient people—not nearly so dirty as the low Irish, and prompt to the day in paying the rent. You will doubtless recall the ill reputation of the locality in which these houses are situated, and yet they stand, amongst all those rough characters, unmolested and uninjured. The door is locked never later than 11 P. M., and always shut during the day. I constantly feel the need of many more just such houses for the very poor."

I regret that Mr. Alfred T. White is not with us to report progress upon his admirable work in Brooklyn, of "Improved Dwellings for the laboring classes," with their 269 tenements, and a population of 1095, of 16 nationalities. He writes:

The main changes of the year are an extraordinary gain in the Scandinavian element, and a drift toward humbler condition or occupations of tenants. In bad times, large numbers of clerks, etc., sought our rooms. Now they find means to hire separate houses. We have more laborers,—fewer artisans. One-eighth of our apartments are let to widows and single women; the accommodations are thus shown to be within the reach of all. Our
buildings earned last year 14 per cent. on their cost,—equal to fully 13 per cent. on to-day's cost to replace. This is ample to secure 6 per cent. dividend, and to continually improve the buildings. It is, however, in my judgment, a more propitious time to build small houses than large tenements, while the good times hold. It is always best to build the best that can be let freely to the thriftiest of the working classes,—then the poorer and less thrifty move up to take the vacated places, and the change is made for all,—the maximum result for the minimum effort. I wish our New York State laws allowed the formation of Loan and Building Societies on the Philadelphia plan. I believe such societies could now be organized and thrive.

IV. The worst of the rotten tenements of a great city raise a more difficult problem still. They are inhabited by the class who have sunk to the very bottom, and propose to stay there; some who have lost hope, some who never had it, victims some of their own shame, some of their misfortunes, types of pauperism in all its sad phases and of all ages. These are the occupants of the vile slums which are beyond repair or renovation, and where nothing will answer but total destruction. No. 7 of the Charity Reform Papers of London, about Dwellings of the Poor, thus begins:

The evil sought to be remedied by a long course of legislation is the living of the poorest classes in dwellings, which are in a state unfit for human habitation, and thereby inducing disease and excessive mortality, and producing pestilence which spreads beyond such dwellings.

For these worst tenements, nothing will do but utter destruction. Dr. Gairdner, Medical Officer of Health for Glasgow, wrote on this subject:

I believe that nuisance removal, epidemic inspection, cleansing, ventilation, and suppression of over-crowding, are all good up to a certain point directly, and perhaps still more good indirectly, by the mere fact of their indicating a desire on the part of the authorities to help the helpless; but in relation to the persistent and slowly-accumulating evils of our great towns, the social rottenness, so to speak, that is in them all, these are mere surface measures. I am also of opinion, and this opinion is based upon experience, that mere extension of house accommodation for the laboring classes, were it ever so well framed, will not do, for this reason, that you cannot build cheaply enough for those classes who constitute the nuisance-breeding and disease-breeding classes, and whom it is impossible to attract into better houses, so long as their old and bad houses remain. Besides, the operation is far too vast.
for any private or public machinery to undertake. . . . I am putting it roundly, perhaps you will even say paradoxically, but I am stating the result of a deep conviction, when I say that the destructive part of the duty of the authorities is of more importance, if possible, than the constructive,—that the first and more essential step is to get rid of the existing haunts of moral and physical degradation.

For all these foul abodes, nothing will do but entire destruction. The Tower's Acts in England (1868), and the Artisans' and Laborers' Dwellings Act of 1875, have led to the wiping out of some of the worst evils in London, but at such extraordinary cost as to forbid further action till better legal machinery is provided. Whole districts have been cleansed by this process of destruction in Glasgow, under like laws, but with far less expense. The nearest approach in the United States to this wholesale treatment which I know of, was in the raising of three large districts in Boston, where houses were low and damp, and many of them rotten. Here also the expense was so heavy that the example is not likely to be followed. I earnestly ask the thoughtful study of good citizens,—what powers can be found and exerted to compel the destruction of tenements unfit for human habitation.

V. Measures different from these are needed to help the classes above the lowest. None can be more useful than those which enable them to own their own homes. The main purpose of this paper is to call attention to the system of co-operative savings and loan associations, which have now been growing up in Massachusetts these last four years. Of course they are not new in this country, nor is the topic new here. They are the Philadelphia associations, so long and so well known there, and which have blessed that city with its 140,000 homes, and its thrifty population. So that the only wonder is that its marvellous success there has not led all our States to follow its example. Papers on these associations have been read before our Social Science meetings four and five years ago. Still they have never received the notice and study they merit. The fact that they have been introduced into Massachusetts, and have gained a strong-hold, and are achieving excellent results, deserves to be stated, with some little explanation of details:

1. After three years' consideration, a full and careful general law was passed in Massachusetts, ch. 224, of 1877 (slightly amended by ch. 271, of 1881), under which these associations
easily organize. This law is based on the experience of Philadelphia, but we think it is more carefully guarded, to protect and make plain the rights of all. It is impossible for these associations to exist in any State without the sanction of statute, and it is unsafe for their members unless the statute is drawn well.

These are some of the points of the Massachusetts Statute:

1. Each member takes as many shares as he or she wishes (not exceeding 25). You are to pay $1 a month on each share, on, or before the monthly meeting. This goes on till all the shares alike (in any one series) are worth $200, when they are of full value and are wound up, and the money ($200) is paid back to you. Usually, one series of shares after another is started every six or twelve months, so that the different series may mature at different times. If no interest were earned it would take 200 months for $1 a month to amount to $200, or 16½ years. But, with the benefit of compound interest, 10 years should see the shares worth $200.

When business was brisk in Philadelphia, and high rates were paid for money, their shares became worth $200 in 8 or 9 years. Of course, the time will depend on the rates the money earns.

2. Loans are made at each monthly meeting of all money paid in. No interest is lost. The money is offered at auction, and whoever offers the highest rate of interest gets it. The laws provide that the premium bid shall be so many cents a share of interest each month.

3. Loans are only made to members. Of course, any borrower can become a member by taking the needed number of shares at $1 each.

4. The security must be real estate, to the approval first of the security committee, and then of the board of directors. Members often know all about the estate mortgaged, and keep posted as to its value and any changes in it. The shares of the borrower must also be pledged as additional security.

5. Loans may also be made upon pledge of the shares alone, but only to a less amount than the actual value of the shares.

6. Loans are made in small sums,—$50, or any multiple of $50.

7. Loans may be paid back at any monthly meeting, or earlier, with interest to that day, thus giving the borrower a great privilege, and enabling him, if he has borrowed his money at a high rate (say 10 or 11 per cent), to reborrow at any lower rate which he may be lucky enough to get elsewhere, or on any subsequent evening. He must pay one month's interest twice, and the charge for new papers.

Observe especially these three provisions:

8. No forfeiture of your money paid in is possible, in the case you cannot go on. You give a month's notice and withdraw it. If you do not withdraw, and cease to pay, the fine is two cents a
month a share. Of course, if you cannot go on paying, you should withdraw. The fines only continue six months, after which the shares are put on a retired list, when you can withdraw the full value less fines.

9. Borrowers are guarded against error or fraud in paying large premiums to be deducted from the loan. The only possible premium is in the rate of interest, settled by the rate bid, and running till the loan is paid off.

10. All profits and all losses must be shared by all the shares in proportion to their values.

Let me call attention to the advantages of these associations:

1. To the investor.
2. To the borrower.
3. To all the members.

11. For the investor, the profits in the associations are larger than any other similar safe investment. They were 8 per cent, for the two years 1879 and '80 in the two older Boston associations. It was a marvel what rates of interest the Boston societies at first got,—8, 9, 10, or 11 per cent. More recently the rates have been about 7½ per cent.

12. For the borrower, the transcendent advantage of these associations is that he not only may, but must pay off his loan steadily, though slowly. Here is the grand distinction: Borrow of a savings bank, and you cannot pay your loan till it matures. You make no preparation. You expect to renew it. If all goes well you can and do renew, and so it goes on till something happens, and you cannot renew, and cannot pay, and they enter and foreclose, and you lose your house and home and all you have paid, and are broken down and crushed. What blow is more overwhelming than to be turned out of the house you have partly paid for with some hundreds of hardly earned dollars; and to lose your all! Not so with these associations. You must pay off a part each and every month; a small part, to be sure. Before you borrow be sure you are right; only borrow what you know you can repay by monthly dues. And then you must go on until all is paid and the house is yours. Whoever borrows $1,000 on five shares must pay $5 (a dollar a share) that same night, and so each month must pay $5 of the principle of the debt till all is paid. Of course he also pays the interest each month, which, at six per cent., is $5 more (i.e., $50 a year). If he bids a premium of 20 cents a share, he must also pay $1 on his five shares. Now see. Suppose he bids and gets his $1,000 loan at 20 cents premium. He pays, each month,—

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<tr>
<td>Interest at 6 per cent.</td>
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<tr>
<td>Premium at 20 cts. a share</td>
<td>0.10</td>
</tr>
<tr>
<td>Total</td>
<td>$11.60</td>
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This goes on till his five shares are worth each $200, when his shares are equal to his mortgage and pay it off, and his shares and his mortgage are all cancelled, and he owns his own home free of debt. He has been forced to save. He has been taught to save. The thought and the necessity are constantly before him. His neighbor may spend his earnings freely, easily, in the hundred ways which cut such big holes in our pockets. But this man and his wife, and his children, too, all are full of the idea of paying up the monthly dues, and so they save their money, and in the end they own their house, and it is free. This man pays off his mortgage. The borrower of a savings bank does not pay his. Here is the difference of infinite importance, of more importance than all else. You own your house. He does not own his. The savings bank or somebody else owns his. In one case you cannot and do not pay off your loan by degrees. In the other you can and must pay it off by degrees. One path leads to independence at your own fireside, under your own roof. The other path leads out doors. This is a good school where thrift is taught with a strong hand.

13. The law also protects the borrower from sudden misfortune. He cannot be sold out till after six months' default.

14. Probably the greatest advantage of these associations is, to the members as a body, in the knowledge of affairs they gain and the habits they form.

The business is done in open monthly meeting, where all members are welcome, and ought to come and see each other, and consult about all common interests. You see who the members are, and whom, not being members, you can induce to join. You see the money paid in and then put up at auction, and who bids, and how much interest is bid. You know what the security is for the loan. The world can show no more admirable school for grown-up men and women to learn the business which concerns them most deeply. Yes, I am not sure that the greatest merit of these associations is not that they bring the members together in constant and friendly consultation. They see, and transact, and consult about, and know and study their own business affairs. Knowledge is power. To make a watch, spin cotton, or bleach cloth, or forge iron, is an art and needs knowledge. But the art of saving money is as hard and as useful as any art I have named. The disasters of ignorance are dreadful. The Ladies' Deposit Bank has brought ruin to hundreds. It is inconceivable how any one could have put money there; yet it is a sad fact. These associations are schools of art; the art of getting ahead.

Here we have a monthly public meeting where all talk over saving in all its aspects: how to save, how much to save, how much to spend, which is worth most, drinks, tobacco, spree, excursions, rides, frolics, silks, ribbons, show, display, expense, extravagance, or the steady saving, keeping and investing of all spare money, an
accumulating fund, a house, a home, a plot of land of your own, or, if married, a home for your children to grow up in safely, respecting themselves and their parents; a competence, or perhaps almost riches. No American has any right to be poor.

A grave objection to savings banks is that they admit depositors to no share in the conduct of affairs, and teach them nothing. For knowledge how to invest money and accumulate property, is of the utmost value.

These associations are the best adult schools for men and women to learn business that I have seen or heard of in the world. You do not graduate at once here or anywhere else. It is a school for life. Saving your money, investing it safely, seeing it accumulate, watching over it, discussing how best to manage, consulting and comparing notes about houses, size and shape, and cost, and comfort, health and repairs, and shrubs and trees and vines, and values, how to save your first hundred dollars, and how best to make it worth $150 and $200; how to teach and bring up your children to work and save and be steady, how to keep out of and hate liquor shops and all the other costly and deadly allurements of the devil, how to form habits of sturdy American virtue and thrift,—and building up a wise plan of life for yourself, your wife and your children, develop and perfect it into the grand result of home and independence, and competence and character. This is the diploma which, by God's blessing, these cooperative societies, these associations "by the people and for the people," of all who will, uniting and cooperating together, offer to all, with no preference to any.

Is it not true that the prosperity of the masses of the people is not only measured by their accumulation of property, but in fact caused by it?

Certainly accumulation is governed by three factors:

1. The spirit of saving;
2. The power of earning;
3. The means of saving safely.

And all three of these causes of the people's prosperity grow out of these associations more largely than from any other system or influence. Common savings banks offer, indeed, to keep what any one desires to save. But multitudes have no such desire. The contagious spirit and eagerness to save is inspired and fostered by constant contact with those who have already formed the habit and prospered in its exercise.
2d. The experience of Philadelphia, and of the world, may be appealed to, to show that a workman's skill and earning power grow almost in proportion to his resolve to increase his wages. A poor workman, seized with the desire to save and own a house, puts his soul into his work, and quickly learns how to do better work and faster work, and so rises to the top of his trade, and often finds chances opening out wider and higher—till he is surprised at his own success. The spirit of saving has developed the earning power.

3d. Safety of investment is the third essential. Without it, saving is vain, and habits of saving hopeless. At the present time the difficulties of investment are growing grave for all, especially for the rich. Rates of interest are falling, and the competition of capital, in its rapid increase, threatens to aggravate the difficulties and reduce the gains. The art of keeping money and of investing it safely, requires more knowledge than the great majority of people possess, with the single exception of simple real estate. Small lots of land in or near cities, and small houses on them, come so close to the daily experience of all that they offer the safest investment for the earnings of the masses. Costly houses and large stores may rise and fall in value. But nothing is so stable as a small, snug, well-built house on good land, reasonably near to the business of a city, and worth from one to three thousand dollars. They are always in demand, and always worth about their cost, or a little more; and except after such great fluctuations as followed our late war, growing out of a change in the value of money, the cost of these houses cannot fluctuate much.

Again, where cities and towns are prosperous, and growing in population as in the United States, the demand for these houses steadily grows, thus offering the chance to invest new money safely, and also to find a fit home for a family to live in. The gravest objection to tenement-house life is the poisonous influence which the bad boy or girl or adult exercises over the whole population, crowded together into relations of constant contact and dangerous intimacy. From these evils, no escape is so sure as the privacy of a separate home. Two other evils grow out of tenement-house life—and more closely related to the especial phases of the question which I have been considering. Tenement-house life leads necessarily to extravagant expense, encourages rivalry
of display between tenants in modes of life, and dress and food, and is fatal to the independence necessary to enable workmen, out of their small earnings, to save and lay up a part.

Secondly, tenement houses offer no possible investment for workingmen. They cost many thousand dollars, and are so far beyond the reach of the tenant that he makes no effort to become an owner, and sinks into hopeless content with his sad lot. Small houses offer a sharp contrast to all this. They promote the independence of character and life, which lies at the root of thrift, and they offer the safest investment, easiest to understand, acquire, preserve and improve. Cheap trains and rapid transit are wonderfully increasing the facilities for the working classes to get out into fresh air, and near some open field, for their homes. Every move in this direction deserves encouragement from all friends of the people.

The economy of occupying one's own house rather than being the tenant of another, is a strong and familiar argument. Let me try to illustrate it anew. To learn precisely how much force there is in this, I have secured the exact figures of ninety tenements for the years 1879 and 1880, from a careful real estate agent:

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<th>1879.</th>
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<th>1880.</th>
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<tr>
<td></td>
<td>Totals</td>
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<td>Per Cent.</td>
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<tr>
<td>Total rent roll</td>
<td>$10,777.30</td>
<td>100.00</td>
<td>$10,690.00</td>
<td>100.00</td>
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<table>
<thead>
<tr>
<th></th>
<th>1879.</th>
<th>1880.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per ct.</td>
<td>Per ct.</td>
</tr>
<tr>
<td>Vacancies, bad debts, commission and repairs</td>
<td>30.</td>
<td>22.5</td>
</tr>
<tr>
<td>Tax, water rate and insurance</td>
<td>17.7</td>
<td>20.4</td>
</tr>
<tr>
<td>Net rents</td>
<td>52.3</td>
<td>56.8</td>
</tr>
<tr>
<td></td>
<td>100.</td>
<td>100.</td>
</tr>
</tbody>
</table>
How many tenants appreciate what rent really is? You think it is a fair payment for rooms occupied, — but it is much more. You must pay not only for the rooms you occupy, but a fair share towards vacancies, that is, for the rooms you do not occupy; and also for bad debts, that is, for the rooms actually occupied by other tenants; and of course you pay the commission of the landlord's agent, and you pay for all the repairs which you think the landlord pays for, but which he really charges in the rent to the tenant. Repairs are always a heavy item with a landlord, because tenants learn the art of breaking, wasting, neglecting and, generally, knocking things to pieces. Just the opposite when a man owns his own house. All is kept in order. Paper lasts for years. Water closets are treated with care, and do not run over. Water is shut off, and pipes do not freeze. Nay, further, see how ignorant children, growing up in a tenement house, are of doing the simplest repairs, and then see how the children of an owner learn to do almost everything about repairs on a house. The first acquires habits of ignorant neglect, while the last form habits of care, and gain knowledge useful to them through life.

Thoughtful and tasteful occupants of their own houses in the suburbs can largely enhance the value of their estates by vines, and shrubs, and grass, while the decay in value of houses rented to tenants is proverbial. These items which a good-paying tenant cannot escape, — vacancies, bad debts, repairs and commission, amounted to 30 per cent. in 1879, and to 23 per cent. in 1880, an average of 26½ per cent. This means that, out of two hundred dollars a year rent, you pay fifty-three dollars more than would be needed if you owned and occupied your own house.

A frame house 17x30 with five good rooms can be built above the land for $1,000, and with the land may cost from $1,300 to $1,800 (say $1,600), and will rent for $17 a month or $200 a year.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deduct tax</td>
<td>$22.00</td>
</tr>
<tr>
<td>Water rates</td>
<td>12.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>2.00</td>
</tr>
<tr>
<td>Interest on $1,600</td>
<td>$36.00</td>
</tr>
<tr>
<td></td>
<td>96.00</td>
</tr>
<tr>
<td></td>
<td>$132.00</td>
</tr>
<tr>
<td>Balance</td>
<td>68.00</td>
</tr>
<tr>
<td></td>
<td>$200.00</td>
</tr>
</tbody>
</table>
It leaves a balance of $68 which the tenant would save by owning his own house. Thus calling the last computation theoretical, and the former practical, we find they substantially agree in saving $53 to $68, say $60 a year on a $1,600 house, if the tenant buys and owns it. Now, $60 a year will take five shares in one of these associations, and pay the monthly $5.

'Tis true, 'tis pity, and pity 'tis 'tis true, that these associations cannot enable a man with nothing saved up to get credit for the whole. That would indeed be kind to him but at the risk of all the depositors, who have the right to insist that their investments shall be perfectly secure. Take the case of a man who has saved $600 to pay down on his house of $1,600, and borrows the $1,000 on 5 shares, at 7.2 per cent. interest. Ten years carry shares of $1 a month, at 6 per cent. compounded to about $164, and with interest averaging over 6 per cent, will probably make them reach $200, when his five shares will cancel the loan of $1,000. The monthly burden will then be

- Dues: $5.00
- Interest at 7.2 per cent: $6.00
- Annual Taxes, $22; Water, $12; Insurance, $3: $36
- Monthly payment: $14.00
- Interest saved on his own $6, at 6 per cent: $3.60

Result: $17.00.

So that instead of paying $17 a month rent, and never owning anything nor getting ahead at all, his $600 saved, enable him to save interest, $36, thereon, and pay the same $14 per month, and own his house free and clear at the end of ten years. The $3 a month saved in rent will take three new shares. So that his $600 grows into $2,200 in ten years, showing how rapid accumulation goes on after a few hundred dollars are saved.

How true the proverb is that "The destruction of the poor is their poverty." Even more true is the converse truth, "To him that hath shall be given, and he shall have abundance." Observe a few of the results already in Massachusetts: The system can no longer be called an experiment. Under its peculiarly beneficent plans of operation many of the workingmen of this State are obtaining homes for themselves and families, while many others are saving their money and making a good investment of the same.
through shares purchased in these associations. Under this law, eighteen charters have been granted, and the organizations are located as follows: three in Boston proper, two at Taunton, and one at each of the following places: East Cambridge, Jamaica Plain, Worcester, Fitchburg, Campello, Brockton, Fall River, Somerville, Lynn, Waltham, Haverhill, Holyoke, New Bedford. The eighteen cooperative banks have accumulated (Aug. 1881,) over half a million of dollars and have a membership of about six thousand. The three in Boston—namely, the Pioneer, Homestead, and Workingmen's—have assets of one hundred and fifty thousand dollars and over sixteen hundred members. This represents the accumulation of four years in the two former and a single year in the latter. The system finds strong supporters among our best men and is growing fast in favor and popularity with the masses.

The most serious objection urged against these associations is usury. The fact of a large outright bonus at starting, which is the Philadelphian practice, is hard to measure and often deceives. The Massachusetts plan is plain and just. No bonus of principal, but a rate of interest which all can appreciate and which runs without change, and which the borrower can stop at any time by paying off his loan.

One serious caution is needed. These associations cannot live any more than any other form of business corporate or private, without rigid integrity in the managers. Here is the stumbling block of all corporations, as lately illustrated by several savings banks. Depositors in every association must feel it not only a right but a duty to watch closely the whole management of affairs, and especially the character of the men. Eternal vigilance is the price of property, as well as of liberty.

And now I invite consideration of this practical question, why laws similar to those of Pennsylvania and Massachusetts should not be introduced into all our States, adapted to their own forms of action, and framed to secure the best results. I am aware that in some other States, laws already exist. Has not the time come for their general extension, and careful revision where they already exist?

Surely the great end to aim at is that each family shall live in an independent home, with their children safe from the contagion of a crowded tenement house; and shall own a part of the soil of
their country. To effect this, thrift must be promoted, not by mere words and exhortation, but by wise and practical measures, by powerful influence and best of all, by close, constant and friendly contact so that the success of those who have already prospered in their thrift, may inspire a noble emulation, leading to like results among the far larger number of their fellow workingmen, who have not learned to save, and to whom a house and home seem an impossible dream, when they might and should before long be an accomplished fact.
II. THE CITY OF HOMES AND ITS BUILDING SOCIETIES.

BY ADDISON B. BURK, PHILADELPHIA.

Any discussion having for its subject "Homes for the People" will be defective unless special attention is given to the experience of Philadelphia, and to the system of co-operative saving funds which has there attained its highest development, and made the title "Quaker City" almost obsolete. These common names of great cities are seldom given without good reason, but "the Quaker City" has had its day, now that the Quakers are so much outnumbered by people of a different faith and habit. The newer title, "City of Homes," is peculiarly appropriate to a great centre of population which has within its borders a dwelling-house for every six inhabitants. Fortunately, too, the very influence that makes it a City of Homes is calculated to perpetuate it as a city of brotherly love. Philadelphians are pretty well accustomed now to being twitted about their mathematically straight streets, crossing each other at right angles, about their red and white houses, so much alike that strangers cannot tell one block from another, except by the names of the streets. But he laughs best who laughs last, and Philadelphians dwell in their cleanly, separate dwellings with complacency, and study the health bulletins that tell them theirs is one of the healthiest cities in the world, without envying their neighbors who think that outside decoration is the only or chief end of architecture. It is a curious fact, but a fact nevertheless, that buildings everywhere are praised or condemned chiefly on their appearance; that what is looked upon as the highest style, the Grecian, generally finds expression in a building of absolutely no practical use, at least outside of countries where roofs can be dispensed with; and that writers of all classes, in praising an architect's work, devote a great deal of attention to the effect on the eye, and to the decorative features of a building, and dismiss in a few words, if they mention it at all, the arrangements made for its proper use and for lighting, heating, drainage, and ventilation. I mention this because we Philadelphians have paid special attention to the interior arrangement of our houses, and have produced model homes in some respects, though we have, perhaps, neglected too much our opportunities for giving variety, and adding beauty to the street elevations.
Some of you are no doubt familiar with our city, but, as I do not know my audience, I shall ask you to bear with me while I give you a brief description of Philadelphia as you ought to see it, and of the influences that have made it what it is. The greater part of the city lies, as you know, on a neck of land bounded by two large rivers, the Delaware and Schuylkill. In addition to the city proper, as laid out by William Penn, numerous other villages, following generally the plan of streets laid out by Penn, were built within the county limits. These gradually met each other in the process of growth, until they formed a compactly built city, and less than thirty years ago they were consolidated under one city government. The country roads which once connected these different settlements, naturally developed into the main streets of the villages they traversed, and ultimately became business streets of the consolidated city. Although the lines of old settlements have long since been obliterated, even a stranger in the compactly built city could almost mark their centres by the clusters of stores; and, indeed, Philadelphia covers such a large area, that socially, and in a business point of view, it still partakes of the character of a cluster of settlements. One of the great thoroughfares I have mentioned—Second street—is lined on both sides, for a distance of at least five miles, with stores and shops, above which are dwellings. Ridge road or avenue, Lancaster avenue, Passyunk road, Girard and Columbia avenues, are also great business streets, outside of the limits of what are generally called the business parts of the city—the neighborhood of Market, Chestnut and Arch streets.

Very early in the history of the city a great deal of thought was given to the very subjects this Association is now discussing. The city was laid out in blocks, with what were then considered broad streets; the blocks themselves were divided into building lots large enough to be healthful, and small enough to be within the reach of people of moderate means; and large blocks, or squares, were set apart for parks or breathing places.

**THE GROUND-RENT SYSTEM.**

But more important than all this, the building lots for dwellings were sold on ground rent. It was a sale in fee simple, the former owner simply reserving to himself a rent out of the property. The
buyer became in fact the owner in fee simple of the lot, but, in consideration of not paying for it in cash, agreed to pay so much rent per annum; and this rent was almost invariably six per cent. interest on the assumed value of the lot;—at first irredeemable; thirty years ago required by law to be made redeemable. This was the foundation upon which the City of Homes was built. Under it very poor men were enabled to acquire title to a lot of ground on which to erect a homestead, however humble it might be. They were secure against eviction so long as they paid the very moderate rent for their lot, and all increase of value which the growth of the city or their own labor put upon their property went to them. The same system of ground rents prevailed in all the settlements now comprising the city of Philadelphia. There was a wide distribution of property, and as most heads of families owned their houses and lots, there was little demand or need for apartment houses, and few were built. Long before Chicago was thought of or conventions had been held, we had got through with a discussion of the "unit rule" in Philadelphia, and every house, whether large or small, was built for the accommodation of only one family. The custom was soon fairly established, and even when property had advanced in value so that it became more and more difficult for the poorer and more improvident people to own their own homes, and rented dwellings had to be provided for them, fashion, habit or prejudice still impelled each family to have its own dwelling complete in itself. More than a hundred years before Building and Loan Associations had been established in Philadelphia, before the days of cooperation, Philadelphia was a city of homes, made so primarily by the ground-rent system, and kept so by the force of local custom.

PHILADELPHIA HOUSES.

I have no doubt that the general plan of Philadelphia dwelling houses is also due to the fact that, being built to a great extent by people of small means, they were made at first no larger than necessity required, and were gradually extended as the means of the owner permitted and as the size of the family increased. The distinctive feature of the Philadelphia dwelling for persons of small means is that, whether large or small, it is well lighted, well aired and admits of decent living. Every room in the house receives light and air direct from windows opening on the street or
on the yard. Each room—except, perhaps, the kitchen—is entirely separate from all others, that is to say, the occupants may pass by entry ways direct from the street to any room in the house, without passing through other rooms. Each house is also provided with a yard or garden, and these, grouped together in the centre of a block, form a broad, open space common to all the houses above the six feet line, while each yard is, nevertheless, the exclusive possession of the house to which it is attached.

The greater portion of the dwellings are also provided with bath rooms, supplied from the city works. The plan, developed by experience and not the work of any one architect, is so good and compact that on lots 14 or 15 feet front by 50 feet deep, comfortable dwellings, with 144 square feet of yard space, and containing from six to eight rooms, are erected and supplied with the essential conveniences of the best of modern dwellings. As a rule, however, the lots are from 16 to 18 feet in frontage, and from 60 to 100 feet in depth.

The great bulk of Philadelphia's dwelling houses range in value, including lot, from $1,000 to $3,500. There are, of course, a large number ranging from $5,000 to $7,500, and for the latter sum a house can be bought fitted for the occupancy of a well-to-do merchant. I am, of course, not referring in any part of these remarks to the costlier mansions of the city, of which there are large numbers.

BUILDING SOCIETIES PRESERVING OLD HABITS.

When building societies were introduced in Philadelphia, fifty years ago, they simply found a congenial soil, and flourished on that account. They did not create, though they may have stimulated the desire for ownership of houses, and at a time when sales of lots on ground rent were less common than formerly, they provided a ready means for poor people to obtain houses of their own. It is an old story that the term building society is a misnomer and that Philadelphia building societies are really co-operative saving funds and loan associations, the correct title by which the Boston societies are known.

THE SOCIETIES REALLY SAVING FUNDS.

It would be impossible for me to make plain to those of you who are not familiar with the subject the method of doing business in a Philadelphia society of today, issuing its stock in series. But you
can all readily understand the society and its system in their simpler forms. Let us begin at the beginning, and see how the present societies might have been, if they were not actually, developed. One hundred men, able to save five dollars a month, agree, in order to strengthen each other in their purpose to save, to put their money together at fixed periods and lock it up in a strong box until each shall have accumulated $1,000. It is plain enough that if each man is prompt in his payments, that strong box will be ready to be opened for a division of the savings at the end of 200 months—in other words, if each monthly payment of one dollar represents a share of stock, each share will be worth a fixed par value of $200 at the end of 200 months. No sooner, however, has this agreement to save money in this way been made, than one of the members suggests that, instead of allowing the money to lie idle, they had better put it out at interest as they gather it each month. The securities for its repayment with the interest being put in the strong box, it will not take them 200 months to accumulate $200 per share. The division of $200 per share may be made at the end of say 180 months, when they have only paid $180 on each share. This suggestion is adopted, and now we have a purely co-operative savings fund, with only one distinguishing feature, and that one of great value—the savings are compulsory and made at stated periods. The member does not lay aside in this fund his spare cash as humor to save seizes him, but enters into an obligation to pay so much per month. I am disposed to look upon this scheme thus far developed as comprising all the essential features of our misnamed Building and Loan Associations.

THE LENDING OF MONEY.

The other branches of business in which they engage, although they give character and name to the societies, are really incidental to the accomplishment of one grand purpose, that of saving money by co-operation and by compulsory payment into the treasury.

Imagine a society formed as here sketched, with no other object than that of saving money and deriving interest from the funds as they accumulate. The first problem that presents itself to the directors is, how to use the money collected the first month.

The purpose of the society will be destroyed if it is not safely invested. Shall it be put in Government bonds at a low rate of
interest, or invested in bond and mortgage, with real estate security, at a higher rate? If the latter course is adopted, to whom shall the money be lent? John Smith, who is not a member of the society, desires to borrow, but so also does Peter Brown, who is a member. If the society lends to Peter Brown, it will have additional security to that represented by his bond and mortgage—in his stock growing in value month by month. To get this additional security for all the money it lends, and at the same time secure a higher rate of interest for its money than could be obtained from Government bonds, the society determines to lend only to its members. Now, however, it is found that other members besides Peter Brown want to borrow the first month's collections. How shall it be decided between them? Obviously, the fairest plan is to let them bid one against the other, and lend it to the man who is willing to give the highest premium over and above the fixed or legal rate of interest. This course is adopted, and the society finds itself in possession of two sources of profit, interest on loans to its own members, and premiums for the prior use of money collected. It is manifest now that instead of requiring 200 or 180 months in which to accumulate in the strong box enough money and securities to divide $200 per share, it will only take say 160 months.

FINES AND WITHDRAWALS.

In the course of time some one of the members fails to pay his instalment. If this is permitted it is manifest that the member withholding his deposit and depriving the society of its use will, in the end, have an advantage over his fellow-members. He will lose only his proportionate share of the possible profit on this unpaid deposit, but will gain, or may gain, for his personal use the whole of its interest value by other investments. To check this a fine is imposed on unpaid instalments or deposits, of more than the interest value of the money, so that the fine may serve as a penalty as well as reimburse the society for the loss of the use of the money.

Another member finds that he cannot keep up his payments, or he desires to remove to another part of the country. To accommodate him, the society agrees to open its strong box before the appointed time, give him what he paid in, with some portion of the profit already accumulated, and cancel his stock. Now, it is
RESULT OF BUILDING ASSOCIATIONS.—MR. BURK.

seen that, incidental to the simple business of saving money and getting interest thereon, there are three sources of profit, namely: premiums arising from competition for priority of loans, penalties collected for non-payment of dues, and profits withheld from members who fail to keep their agreement and whose stock is cancelled. And so we have developed all the features of a Philadelphia building society as it existed thirty years ago.

THE COURSE OF THE SOCIETY.

You can imagine for yourself the course of such a society. At first the demand for money is brisk and premiums rule high. As time goes on the demand slackens, premiums fall off and eventually it becomes difficult to dispose of money to members and other safe investments have to be found. At last, somewhere between the tenth and eleventh years, when from $120 to $132 have been paid in per share, the strong box is found to contain securities or money sufficient to divide to all the shares (borrowed and unborrowed) $200 each. The society is then, technically speaking, "wound up," though like Grandfather's Clock, it is "never to go again." Each holder of an unborrowed or free share gets $200 in cash. Each borrower is entitled to $200, but he owes $200, for which the society holds his bond and mortgage, so the account is squared by a cancellation of the mortgage.

THE RESULTS TO MEMBERS.

What have been the results? The investor has made ten or twelve per cent. on his money for the average time of his investments. The borrower has paid perhaps eight or ten per cent. for the use of his money; when the nominal market price is only six per cent. But if a fair comparison is made between loans obtained in the open market and loans from building societies, the difference will be found in most cases more apparent than real. That is to say, agents for private capitalists generally demand a bonus for getting a loan; the loan itself is generally not granted for more than three years, and if the market warrants it a fresh bonus will be demanded for a continuance of the loan or the borrower will be compelled to go again into the market to pay the first lender, and will have fresh conveyancers' fees to pay. This may occur twice in the lifetime of a building society loan, and when the accounts of two loans are compared, the difference is very frequently in favor
of the society loan as a matter of dollars and cents, and always in its favor when the convenience of getting the money, of paying the interest and dues in monthly instalments and the freedom from worry about a possible foreclosure, are taken into consideration.

I have tried both ways of borrowing money to pay for a home, and have known many others to do the same, and my preference for the society loan, when the premium is not very high, is the result alike of experience and of observation. High premiums, be it observed, are not an unmixed evil. If the premium paid by an individual borrower, though high, is not above the average paid by other borrowers, a fair share of it will be returned to him in the shortened life of the society, and the reduced number of monthly payments he is required to make.

A BUILDING SOCIETY COMEDY.

There is a small building society comedy now being performed in Philadelphia, which may fairly be used to illustrate the advantages which may be derived from borrowing money through a building society. A little house, which rented for twelve dollars and a half per month, was put up for sale. The occupant, who liked it well enough to make it his home, was urged to buy it through a building society. He knew just enough of finances to be in the proverbial condition of a man with little learning. He would not be such a fool as to borrow money at a premium, and denounced the societies and their system. His friend, seeing that the house would prove a good investment, bought it for $1,500, and the tenant continued to pay $12.50 per month rent. There was a ground rent of $30 per annum on the house; the thousand dollars required for its purchase was procured from a building society, and the rental money devoted to paying dues and interest. The entire cost of interest, monthly dues, ground rent, taxes and water rent has amounted to just four dollars a month more than the rent. The comedy has advanced far enough to allow me to foresee and tell you what will be the result of the last act, and its moral. By the payment of about $500 in addition to the rent received from the skeptical tenant, his friendly adviser will become the owner of the house worth $1,500, subject to a ground rent of $500, or $30 per annum. The tenant might have done the same thing, and have lived in the house as its owner during these ten
years if he had only known as much about building societies as he thought he knew.

A LITTLE OF THE DARK SIDE.

But every borrower does not profit by building society loans, and because they do not the societies are sometimes the subject of unjust censure. You will notice that the societies as constituted have nothing whatever to do with the building or even the buying of houses. The money lent by them is generally devoted to building houses or the buying of them, partly, perhaps, because real estate security for the loan is required; but the borrower, having procured the money as an ordinary loan and given the required security, can do what he pleases with it. He may invest it in business or use it for purely speculative purposes. Whether he profits from the loan depends, of course, very largely upon the investment he makes; and the societies and their system are not in any way to be held responsible for the result, except in so far as they may encourage unwise purchases of property. Now, as a matter of fact, they generally act as a check upon reckless investments. The directors who pass upon loans look almost as keenly after the personal security afforded by the character of the would-be borrower and his apparent ability to carry the loan as to value of the property to be mortgaged to them. They seek to avoid loans that will give them any trouble, and, in doing so, necessarily act as a check upon extravagant purchases. And such a check is needed, for very few men are content to try to buy for a permanent home a house of the same class as that which they rent. They generally aim higher, so high in fact, that they sometimes overreach themselves, and, after a struggle, are obliged to give up the house they had hoped to call their own. And here comes in one of the sources of loss to both society and borrower about which there are many misunderstandings. The full benefits of the system cannot be obtained by any member who withdraws before his shares have reached maturity. If a loan is repaid before that time, whether voluntarily or under foreclosure, the cost per cent. per annum to the borrower is invariably greater than it would have been if he had kept on to the end. The society also generally loses by foreclosure proceedings, through lawyers' and agents' fees and costs, or, at least, makes less than it might have made if the loan had been carried until the shares reached
In summing up his losses, the borrower seldom takes account of the rental value of the house he has occupied for perhaps three or four years, and so considers that he has been defrauded by the system. This is the origin of very many complaints against the societies, and when the story of the sufferer is exaggerated and misunderstood, it creates in some minds (particularly those of law-makers) a bitter prejudice against the whole system.

The management of building societies is extremely economical. There are only twelve meetings each year. These are held in small halls at night, and all the officers serve without pay, except the secretary, who receives a nominal salary. The affairs are conducted in the vast majority of societies with scrupulous honesty, notwithstanding the temptations careless stockholders set before the officers by neglecting to take receipts or attend meetings, or in any way care for their interests. So confident are thousands of people in the honesty of these societies as a class, that they will go among strangers and make their deposits with anyone who offers to take them, often without taking receipts for the payments. Once in a great while some one takes advantage of this faith and trust, but very rarely. Indeed, the ordinary business of building societies is a pretty good check upon wrong doing. The meetings are open, the books may be examined at any time, and a committee of the board usually stands between the secretary and treasurer to make note of the collections. The auditing of accounts by a committee of stockholders once a year is a duty which should be very thoroughly performed. The committee, if it is willing to do the work, can easily make a thorough examination of the books and securities, but it cannot without going over each individual account declare whether the amount reported to have been received for dues is correctly stated. The best thing to do to make the audit effective is to publish with the annual report a statement of the debits and credits of each individual account, as known by its book number. Thus each member is made the auditor of his own account, and if it is omitted from the list or incorrectly stated, he will be sure to call the attention of the directors to the error. The aggregates of these individual accounts furnish the basis of the general account, and if they are
correct it is only a matter of calculation and examination ofvouchers, to determine whether the secretary's and treasurer's
books are right. The audit ought to be thorough, or should not
be attempted. To go over the accounts merely as a matter of
form, is to set up the white light of safety in ignorance of the
condition of the road. It would be better to leave it down, and
let each traveller look out for himself.

EFFECTS OF BAD MANAGEMENT.

All is not gold that glitters; and some of our Philadelphia
societies, through bad management, and a few through dis-
honesty on the part of officers and carelessness on the part of
stockholders, have brought great discredit on the whole class.
Not long ago, when I invited a young man to join a new society,
then forming, he refused to do so, and when I inquired the reason
he told me that he had put $84 in a society and had not succeeded
in getting more than $15 out when he attempted to withdraw.
This, however, is an exceptional case. Another society whose
report I saw, suddenly reduced the reported value of its shares
from $190 when $108 had been paid in, to $94 when twelve dollars
more had been invested. In this case the loss was occasioned by
bad bookkeeping, and a false division of profits to a series which
was mistakenly said to have matured, and had taken out of the
treasury money that did not belong to it.

DIVIDING PROFITS.

Although the subject is rather technical, and I cannot treat it
fully, I should like to call your attention to this matter of dividing
profits in a series society. The typical society I have heretofore
described is supposed to have issued its stock in one series. The
modern society issues its stock in annual or semi-annual series,
with the purpose of keeping up the demand for money by period-
ically introducing a new brood of borrowers.

ISSUING STOCK IN SERIES.

I think, myself, that there is no real advantage about the issuance
of stock in series, provided due provision is made to pay off free
shares as they mature; and, if such provision is not made, as has
been the case with hundreds of Philadelphia societies, the very
purpose of the organization is defeated. Suppose the stock to be
issued is in series. After the first few years the greater part of
the money will be loaned to stock in the later series—that is the very purpose of issuing the stock in that way. If this is continued, as has been the habit, until the first series matures, the strong box will contain no money and no negotiable security, although the assets are ample to pay the free shares—on paper at least. The result of this state of affairs—and it exists in many societies—is that the investor, entitled to $200 per share in cash, is compelled to wait from one to two years before he can get his money. And the use of the money collected from month to month, in paying off these free shares, deprives the later series of profit thereon. They no sooner recover than the second series runs out after a longer term than the first, and more free shares have to be provided for, setting back the third series so that it will run a still longer term. The only way to avoid this difficulty is to make timely provision to meet a known future obligation. This can only be done by holding money in the treasury, or putting it in negotiable securities; and, if this is done, all the supposed advantage of issuing stock in series is lost.

A COMPARISON FROM REAL LIFE.

We had a striking exemplification of this in the history of two societies that ran an almost parallel course in Philadelphia. One was formed chiefly of Public Ledger employés, and was as conservative as the paper, issuing but one series of stock; the other, starting about the same time, was progressive, and issued its stock in series. For some years the reports of the two societies seemed to justify the sneers cast upon the slow management of "Ledger No. 1," of which I was not a member. The series society reported great and increasing profits, while the "Ledger" had to invest its surplus money in Government bonds, City sixes, and similar securities. At length the first series of the series society reached par, and there was great rejoicing until it was found that there was no money with which to pay the free shares. The members had to wait or submit to discounts in order to get their money, and in the meantime the "Ledger" stock matured. I was present on the night that the stock reached its par value, and had the satisfaction of seeing every cancelled mortgage delivered to the borrowers, and every holder of free shares get a check for the full $200 per share to which he was entitled. The whole business of closing up the affairs of this society was done
in twenty-four hours. It is, in fact, one of the specially good features of the single series society that it cannot possibly run out, or be declared run out, until the strong box contains enough money to divide $200 per share.

MORE ABOUT DIVIDING PROFITS.
Where series are issued the profits are very apt to be unfairly divided between them. The only safe rule, which I feel sure is right, is one devised by my friend, Mr. Michael J. Brown, of the *Building Association Journal*. This treats the series as business partners, and divides the gains to the series by the ordinary partnership rule given in the arithmetics. By it every dollar invested, no matter what the series, receives the same rate of profit for the time it is invested as that given to every other dollar.

ABOUT PREMIUMS.
I shall only touch upon the mistakes committed with premium accounts, because the later plan of collecting premiums, like interest, in monthly instalments, which has been adopted by the Boston societies, prevents the mistakes made in some of our Philadelphia societies. Where the premium is deducted from a loan, a man borrowing $5,000 may perhaps receive only $4,000. The other thousand dollars is retained by the society as the premium. If the loan should be repaid at any time, a part of this premium is returnable to the borrower, the part retained being proportional to the time he has used the money. Nearly all our societies have been in the habit of treating the whole of the premium as a gain at once, instead of setting down the returnable portion as a liability. This has led to false divisions of profits and such losses to later series as I have heretofore mentioned. The worst of it is, too, that the division having once been made in a report is treated as final, and if any subsequent change takes place, stock in series that had no share in the false profit, must help to bear the real loss. The mistake, I am glad to say, is being corrected, also under the leadership of Mr. Brown, who has induced by his arguments many directors to treat returnable or unearned premiums as liabilities.

PROSPECTS OF THE FUTURE.
I think we now understand these societies thoroughly in Philadelphia, and that the prospects for the future are very bright, not
in the direction of large profits, but of continued usefulness, and all the brighter on that account; for large profits mean costly loans to borrowers, and costly loans defeat the purposes of the organization. Let me say, in conclusion, that there is no good reason why this cooperative savings fund and loan society system should not be of great benefit to people everywhere, especially if you will take our experience in Philadelphia as a guide against known mistakes of management. It does not require that the people should be given money help to start a society, but only that some good men and true should make known the advantages of cooperation, and aid in giving the society wise direction.

One feature of great value in these building societies is, that they help to make men independent and self-helpful. There is nothing pauperizing about them. Even the borrowers get their loans not as a favor, but as a matter of right, a privilege for which they pay. The man who organizes them in a new neighborhood, and helps to develop them in the right direction, does more for the good of the community than the philanthropist who, in helping workmen to acquire homes through gifts of money, puts them under obligations they cannot repay, breaks down their frugal, thrifty habits, and leads them to look forward with a beggar's wistful eye to means of getting money without working for it.

I know that I have failed in this hurriedly prepared paper to do more than touch upon many questions of great interest and importance, and may have also failed to make clear those points I have attempted to explain, but, to correct such omissions and obscurities of expression, I shall be glad to give further information in response to direct questions, as time and my knowledge of the subject may permit.
III. HOMES FOR THE PEOPLE IN THE CITY OF WASHINGTON.

READ BY JOHN HITZ, ESQ., OF WASHINGTON.

(Friday, Sept. 9, 1881.)

As a house is typical of the man who builds it, provided he intends to occupy it himself, and cities in general terms are typical of their founders and the people who inhabit them,—so that city which constitutes the federal seat of government of a land, partakes more or less of the individual and general characteristics of the nation at large. More especially is this so, where, as in Washington, the nation is actually the founder, and through its representatives exercises direct control over it. Washington, then, from its very inception partook of a national character, and to all close observers, it already gives evidence of becoming in time a veritable epitome of the United States. Certainly no feature of the city more forcibly illustrates this distinctively national character than do the buildings scattered over its wide area. Here one finds, both in the city and suburbs, numerous specimens of the primitive hut of the dusky sons of toil from the great "cotton-belt," and likewise the inviting verandah and generous hearth of a genuine Southern home. Neither are wanting the cozy cottage of a New England artizan, and the suburban villa and granite palaces of some of her men of mark. And so also can be seen types of the cheerful Western home, and the Philadelphian interminable uniformity. The opulent New Yorker already finds that his elegant mansion, which wealth has supplied with every possible comfort, is rapidly being duplicated here in the more advantageous and pleasing surroundings afforded by numerous well kept public parks, and a hundred miles or more of superior paved roadways, shaded by no less than seventy thousand trees.

When we examine into the character of the dwellings occupied by the whole people in Washington, the relative number of taxpayers, etc., a showing by no means discreditable to this typical city of America will present itself. Only, the peculiar position which the federal capital occupies, as it were, imposes upon it exceptional advancement in the matter of "Homes for the people." The regulations of the inspector of buildings and of the health department (which in the main are strictly enforced), preclude the possibility of people living in basements and hovels totally unfit
for habitation. It will furthermore be seen that the proportion of houses of insignificant value is small, and the number of freeholders quite large. The following statistics, culled from late official reports, will enable all interested in the subject to draw their own conclusions:

**Population of the District of Columbia (Census of 1880).**

<table>
<thead>
<tr>
<th>White</th>
<th>Colored</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>99,128</td>
<td>48,179</td>
</tr>
<tr>
<td>Georgetown</td>
<td>8,819</td>
<td>3,739</td>
</tr>
<tr>
<td>County</td>
<td>10,229</td>
<td>7,464</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>118,176</strong></td>
<td><strong>59,402</strong></td>
</tr>
</tbody>
</table>

**Total number of taxpayers (stated),** 38,000

**Families (estimated),** 37,500

**Houses in the District of Columbia June 30, 1881.**

| Brick or stone houses in Washington | 12,765 |
| " " " Georgetown | 1,088 |
| " " " County | 201 |
| **Total** | **14,054** |

| Frame houses in Washington | 9,300 |
| " " " Georgetown | 1,005 |
| " " " County | 755 |
| **Houses valued at $100 and less in Washington** | **11,660** |
| " " " " Georgetown | 118 |
| " " " " County | 870 |
| **Total** | **1,910** |

| **Total** | **27,624** |

There is no lack in Washington of the spirit of cooperation, which manifests itself in various economic, social, political, and other organizations. One finds any number of excellent building associations, with features like the "Equitable," recommending itself specially to those in office of "uncertain tenure." But they all, whilst encouraging economy, tend to supply the absence of reliable savings banks (of which there is only one in Washington), rather than in reality to stimulate among members the acquisition of homesteads. There exists every evidence that the people "love to congregate together," but, it would seem, not for purposes of domicile; for one of the most marked features of the city is the total absence of tenement houses, as known in New York and other cities. It is true that the numerous boarding houses absorb a considerable part of the population, and that, here and there,
we find two or even three families occupying one house, but the latter is exceptional. Even the poorest laborer seems to prefer a more remote domicile of his own, made up only of refuse lumber, to the most centrally located attic under rent. The great area of the city, in connection with its excellent streets and ready means of reaching the suburbs, enables the laborer to dwell according to the bent of his mind—near the ground, and remote from the inconveniences of upper stories. But no class here, not even the unskilled laborer, more clearly needs to devise some better mode of home life, than in the main falls to the lot of members of Congress, and of the ten thousand or more employes in the public departments.

One of the distinctive phases of the population of Washington, as compared with other cities, is its disproportionately large number of persons engaged in clerical work of a higher than ordinary grade, and the comparatively small number of artisans engaged in mechanical and other like pursuits. Owing to the vast area of streets, extensive sewers, etc., which, in a comparatively new city of such great extent, need improvement and constant attention, a larger number of unskilled laborers find temporary employment than is common in cities having a resident population equal to that of Washington. The exceptionally large number of its transient population during the sessions of Congress, also gives increased activity to tradespeople, and considerably augments the number of those employed for the time being in all branches of domestic service. Whilst much might be done, it is true, to improve the domiciles, and, to some extent, the boarding and lodging facilities of these, and so render their service more efficient, yet they are, in the nature of things, comparatively better provided for than are most of the 1,400 employes of the Government Printing Office, the 1,600 artisans of the Navy Yard, or the 3,300 persons of both sexes in service of the Treasury department, to say nothing of the large number engaged in the War, Navy, Interior, State, and other departments.

Efforts to meet the want here indicated have not been wanting. Whole squares have literally been built up with two, three and four-story dwellings, many being provided with all the so called "modern improvements." These structures contain from five to thirteen rooms, and are obtainable at the moderate rentals of from fifteen to sixty dollars per month. These, according to location
and conveniences in general, find tenants readily. Many are held for sale on liberal terms, such as a cash payment of several hundred dollars, followed by monthly instalments of from twenty-five to fifty dollars for the balance of the purchase money, which includes interest at the rate of from six to eight per cent. But this system of providing homes for the great mass of people in Washington, having moderate and stated incomes, but of uncertain duration, is only partially satisfactory.

It is true many of these dwellings have thus been purchased by their occupants, but, generally speaking, these houses are not constructed or located to suit the taste of the more domestically inclined government employé. Even if not immediately hailing from some rural district, when purchasing a homestead, he wants something besides brick and mortar; and, typical American as he is, at heart longs for a country home, or the nearest approach to it possible.

Among other notable schemes to meet the want in question, an eminent topographical engineer, Mr. J. Enthofer, of Washington, in 1870, published a "Prospectus of a Coöperative Enterprise supplying families with a comfortable home and facilities for the education of their children." This project aimed at the organization of so-called, "Home Associations." Membership was not to be limited in number, but subdivided into sections, according to the locality and size of each building for associated homes. The money required to erect an associated home building, the projector proposed to raise by subscription to stock in shares of one hundred dollars each, payable in monthly instalments of fifty cents. As soon as the required number for an entire structure had been registered, duly passed on and accepted, officers were to be elected, a charter procured, the desired ground leased or purchased, and contracts for the building entered into. As a type for such a building, the projector recommended selecting a square of ground 330 by 400 feet, and erecting thereon, exclusive of cellar and mansard, a four-story edifice, including a transverse structure, the whole so constructed as to afford two court-yards each, of 158 by 292 feet; one to be laid out in a flower garden, and the other in a grass plat, as a playground and gymnasium for the children of the occupants of the associated home. The entire structure was to contain, besides closets, etc., some 720 apartments; each room having a depth of eighteen feet, and to be from twelve to thirty
feet wide. The lodging-rooms were to be so arranged that members could be accommodated with just the number required, from three to fifteen; the partitions to be solid brick walls and flooring sound-deadened and fire-proof. Access to the several suites of apartments was to be had by means of twelve stairways, ample in size, so arranged that each stairway landing would have to serve only two families on each floor. Each suite of apartments was to have from forty-eight to 133 feet frontage, and be entitled to a portion of the cellar and mansard. The whole building to be heated by steam, which in the summer season would be utilized to drive ventilating machinery; the gas to be manufactured upon the premises. An engineer was to be employed and a janitor placed in charge of the entire building, whose duty it would be to keep it in good sanitary condition, and the courts in proper order. The services of a first class caterer were to be secured and a public laundry provided.

The transverse structure it was proposed to utilize as follows: the basement, for vapor, plunge and ordinary bath-rooms, for the use of occupants of the "Home," not provided with the same in their own apartments, for hair-dressing saloon, &c. On the first floor there were to be two large school-rooms and a dining saloon for children under twelve years of age. The second floor was to contain an assembly-room, forty by seventy feet, for social entertainments, and other meetings; also, a dining-room for members not taking meals in their own apartments; a reading or sitting-room for ladies, and a reading and smoking room for gentlemen; these to be supplied with choice reading matter, periodicals and papers in ample numbers, at an expense not to exceed fifty cents per month to each subscriber. The third floor was to be appropriated to recreation, amusement and conversation rooms, furnished with billiard tables, chesmen, &c. Regulations for the instruction and supervision of children, providing for the sick, and also in regard to furnishing meals, and attending to the laundry work, of occupants of the "Home," who preferred not to perform such labor in their own apartments, were given by the projector.

The rentals per year which these apartment should yield to the members or stockholders were stated as follows:

First story, front rooms, per square foot of area, twenty-five cents.  
Second  "   "   "   "   "   " three hundred thirty  
Third  "   "   "   "   "   " twenty  
Fourth  "   "   "   "   "   " sixteen
The remainder ranging from twenty cents down to twelve cents. Thus a front room of eighteen by sixteen feet on the third floor would command four dollars and eighty cents per month. The expense of living at such an associated home, including board, washing, heat and light as also the expenditure for janitor and engineer, were rated as follows per month:

- Single persons: twenty-five dollars.
- Families, per adult, according to number:
  - Families, from one to four: ten dollars.
  - Families, from five to nine: eight dollars.
  - Families, from ten to fourteen: five dollars.

The projector sums up by showing in a tabular statement, that for a family of six persons, living in such an associated home, apart from the advantages it would enjoy in the way of educational facilities and increased comfort in many respects, a gain of nearly three hundred dollars annually would be the result as compared with the present mode of living in detached houses.

It is now upwards of ten years since this plan was proposed in Washington, and despite the unquestioned success of a similar system originated by the eminent social scientist, J. B. A. Godin, in Guise, France, as early as 1859, the beneficent effects of which command to this day the admiration of every votary of social science, this project of Mr. Enthofer has so far totally failed of realization. Various have been the reasons assigned therefor. The projector, himself, states that most of the subscribers declined to take any other apartments than those on the first floor; others say the scheme is antagonistic to that instinct of individualism, inherent in every true American, which makes him averse to anything which shall, even seemingly, hamper his movements or lessen his individuality; whilst a third emphatically declares "the love of dominion in man," to be at the bottom of the disinclination of American men to adopt such a system of homesteads, because it would be a signal movement towards emancipating their wives from the drudgery of house-keeping and render them less domestic.

Various suburban projects have, from time to time, been started to meet the demands of persons of moderate means, who would not be content within the ordinary city dwelling. "Uniontown," primarily for the employés of the Navy Yard, is beautifully located...
on the banks of the "Anacostia," or Eastern branch of the Potomac, on a plateau of gently rising ground backed by a fine range of hills. Along the base and on the rise of these hills, a short distance apart, a suburban negro village called "Hillsdale," has sprung up, as it were, of indigenous growth, which, with its many primitive and rude looking structures, liberally covered with whitewash, gives the landscape here, from a distance, a rather picturesque and cheerful appearance. A tramway extends from the city to these suburban villages. The denizens of neither of these settlements seem to have been actuated by any other motive to locate here than that the holders of the ground offered building and garden lots on exceptionally low and favorable terms.

Mount Pleasant Village and Meridian Hill, two suburban settlements situated on the high plateau north of the city, were efforts in the direction of inducing clerks in the departments, and other persons of moderate means to purchase lots of half an acre or more on easy terms; and erect thereon cottages to suit. Whilst both are delightful locations, neither has attained that degree of prosperity and attractiveness which their denizens at first pictured to themselves. Possibly the distance from a tramway of the one or the detrimental practice of holding lots at a higher price than originally fixed upon, after the first sales were effected, may have caused a lack of the requisite participation. So, whilst some cozy and inviting homes may be found there, the majority of lots remain unimproved, or show lamentable neglect. In regard to Pleasant Plains and portions of University Hill, two like suburban settlements (on the line of tramway however), a similar tardiness of growth is to be noted.

It would seem that the only approach which has been made, in the District of Columbia, to solve successfully the problem of suitable associated homes for persons of moderate incomes, is the enterprise known as Ledroit Park, comprising some fifty acres of land, subdivided into 190 building sites, adjacent to, and fronting some two thousand feet on the northern boundary line of the city. It is contiguous to the termini of two tramways, with a third in prospect at an early date, so that at all times for a five cent fare most of the public departments may be reached in from fifteen to thirty minutes. This enterprise indicates an intelligent effort to practically solve the problem of "Associated Homes," adapted to the taste, wants and means of the average American.
applications of electricity, steam and gas in domestic economy afford; a cooperative dining hall in charge of a first-class caterer, a public laundry, a nursery and kindergarten, so that the mothers of the place, if so disposed, could at all times, temporarily or permanently, be relieved of the drudgery of the kitchen, the worry with servants, and the wearing care of small children, cheerful apartments for, and good attention to, the single of both sexes, a Rochdale store, a school and circulating library, places of worship and amusement, public greenhouses and conservatory, a swimming pool and skating rink, a gymnasium, a livery stable, a post and telegraph office, in fact everything calculated to make such an associated home attractive at all seasons, promote refinement, and afford true comfort. All might be so arranged that, to some extent at least, it shall be within the means of every denizen to enjoy these advantages, whether his salary be only that of a messenger, or be that of a cabinet officer.

Considering the practice which prevails of apportioning the appointments in the several departments pro rata among the States, will not some wealthy public-spirited New Yorker lead off with such an associated home building, or a suburban park, at the federal Capital, named in honor of his, the great Empire State? wherein provision might even be made for its senators and representatives, of which New Yorkers would be proud, and where they would delight to congregate? Or will some farsighted New Englander first step forth and show how it can be done? The several State headquarters at the Centennial Exhibition gave abundant evidence how gladly “birds of a feather flock together,” and not less so the entertainments of certain of the State Associations in this city within a more recent period. It is merely in a suggestive way that these ideas are presented; back of them, however, is the accumulated observation of years.

The advent of the so-called Board of Public Works, of which Ex-Governor Alexander R. Shepherd was the master spirit, did much to stimulate the erection of a better style and higher order of dwellings in the city. The parking or widening of the sidewalk area along all streets not devoted exclusively to business purposes, allowed the introduction of bay windows and other ornamental projections. Thousands of dwellings in the city now enjoy the advantages of this wise innovation upon former rules for building. This parking, together with the extensive tree-
planting feature of Washington, has greatly added to the pleasure
and comfort of its denizens, and contributes largely to mitigate
the drawbacks incident to life in large cities.

The grading and paving of the city, in a manner that even ex-
ceeds in excellence the carriageways of the most advanced cap-
itals of Europe, induces the more wealthy frequenters of Wash-
ington, and also many of the prominent public men of the country
possessed of the means, in increasing numbers, to erect elegant
and costly mansions. The federal Capital promises thus in time,
not only as a writer has recently observed, "to be the winter end
of New York as Newport is its summer extension," but the
favored resort during half the year of the cultured and wealthy
throughout the land. In anticipation of this increasing influx of
the wealthy, apartment houses are being erected upon a scale equal
to any in the country. Such a structure, recently completed,
called "The Portland," contains three complete suites of six
rooms, each on the lower floors, commanding respectively a rental
of $1,500 per annum, unfurnished, whilst the smaller suites on the
upper floors are held at from $750 to $1,200 per annum. Of
course all conveniences which it is possible to supply are intro-
duced, including elevators and steam heating, whilst on the first
floor, those who desire to dispense with cooking in their own apart-
ments, can be served at a table d'hôte or à la carte.

It will thus be seen that in Washington, for the wealthier class
of people, temporary and permanent rooms upon a commensurate
scale, are amply being provided, but homes adapted to the means,
and in keeping with the advancing spirit of the age, for the un-
skilled laborer, and the large number of people called into the
service of the Government (including a suitable dwelling for the
family of the President of the United States), are wanting.
These will no doubt in time be forthcoming, when greater stability
is given to the civil service, and some enlightened man or woman
of this country "possessed of means and goodly will," shall, as
Godin did in France, and Lindley in Great Britain, show here how
it can be done. Then we may expect to see clusters of model
dwellings at the National Metropolis, which, provided their in-
mates make the two great commandments their rule of practice in
life, shall constitute the best types of American Homes for the
People.
DEBATE ON BUILDING ASSOCIATIONS.

The three papers submitted by Mr. Paine, Mr. Burk and Mr. Hitz were presented in behalf of the sub-committee of the Social Economy Department, which had for its subject of investigation the general matter of Homes for the People, so often considered by this Department since 1874. In the absence of Professor Rogers, chairman of the Department, Mr. F. B. Sanborn presided, and, at the close of the paper of Mr. Hitz, called for a discussion of the topics under consideration. Mr. F. J. Kingsbury, of Waterbury, Ct., opened the debate by the following remarks:

Mr. Kingsbury: In Connecticut our experience with Building Associations has been very unfortunate. A law was passed about 1850 authorizing their formation under the name of "Savings Banks and Building Associations." For a while they were very popular, and by 1857 they had come to represent a capital of seven or eight millions, and were said to have controlled the State legislature of 1857. The crisis of that year, however, found them wholly unprepared to sustain themselves. That class which was expected to be specially benefited by them,—the class that depends mainly on daily labor,—were the greatest sufferers. They were unable to meet their monthly payments, they lost their homes, and in many cases the hard earned savings of previous years. They found themselves burdened with a debt they could not hope to pay and became despondent, hopeless and ruined. All these associations were gradually wound up and closed by order of the legislature; the law was repealed, and the prejudice in the State against the Building Associations remains strong to the present time.

As a rule they were not managed dishonestly. It was a lack of prudence and foresight, rather than of honesty, that caused the trouble. The management in many cases was in the hands of people of not much business knowledge and experience, and there was enough in the system that was attractive, and at the same time specious, to mislead these men, and those who were persuaded to join with them.

These associations were all of that class having various series, maturing at different times, and which Mr. Burk admitted were too complicated to be intelligently managed without great experience; although many of the Philadelphia associations were on that plan. A work written to elucidate the series system was far more abstruse than Gen. Barnard's essay on the mutations of the gyroscope.

Mr. Kingsbury thought that the series plan had been one of the important difficulties in the Connecticut experiment. Other trou-
bles were that under the stimulus of competition, brought about by the bonus system, borrowers, ignorant of business matters, had been induced to pay a higher rate of interest than any business could afford to pay; also, as a rule, loans were made on insufficient security, being largely second mortgages, or first mortgages for the full supposed value of the property, and frequently a speculative value at that. Under the stimulus of these Associations, an inferior class of builders built, for purposes of speculation, a great many poor, cheap houses, which almost fell to pieces after a few years' neglect, and became utterly worthless. Perhaps, in a large city like Philadelphia, where there are probably stringent building laws in force, the danger from this last mentioned cause might be largely avoided; but there had been generally, both by managers and members, borrowers and lenders, such an apparent lack of sound business management in Connecticut, that he had been led to believe there were radical defects in the system, that were responsible for it. One of the prevailing fallacies always seemed to be, that the borrower did not have to pay a high price for his money, while the lender did get a high rate for his. Even Mr. Burk, who understands business matters pretty well, says, "What have been the results? The investor has made ten or twelve per cent. on his money for the average time of his investment. The borrower has paid perhaps eight or ten per cent. for the use of his money when the nominal market price is only six," etc. Now, is there anything more clear than this, viz.: that, whatever anybody has made, the borrower must have paid it,—and not only that, but in addition to that, all expense of management and all losses? Where else could it come from but the pockets of the borrowers? It is fallacies of just this sort, plausible and specious, but misleading, that have given men a great distrust of this class of institutions.

Mr. Kingsbury was willing to admit, however, that in Philadelphia these Associations had been apparently successful, beyond what he had thought possible, and while he believed the scheme itself a dangerous one, he advised persons willing to try the experiment to proceed with great caution, and to look to Philadelphia for assistance and advice; making, if possible, all due allowance for certain habits of living and usages in building, which he thought were to some extent peculiar to that place.

Mr. Burk made some reply to the criticisms of Mr. Kingsbury, and the Chairman referred the latter to the Report of Mr. Paine for the present state of the law of such Associations in Massachusetts, where formerly the same complaint occurred as in Connecticut.
IV. SOME RELATIONS OF ART TO THE AMERICAN PEOPLE.

A REPORT PREPARED BY MARTIN BRIMMER, ESQ., OF BOSTON.

(Read September 9, 1881.)

Within a very few years there has been a remarkable growth of the taste for art in this country. We have come, somewhat suddenly, to the conviction that the fine arts and the application of them to industry form an essential element in the progress of a great people. This development is a part and a sequence of a similar movement throughout the civilized world. In order to understand its nature and its drift with us, we must consider, however briefly, its sources abroad and the conditions under which it has reached our shores.

The most striking characteristic of the stream of art is its tendency to broaden its channels. Egyptian art, the earliest belonging to an advanced civilization which has influenced our own, serving a religion of mysteries, controlled by a priestly caste, and hemmed in by priestly traditions, addressed itself chiefly to the feeling of religious awe. The Greeks, whose deities were men gifted with ideal attributes, appealed in their works to the sense of beauty, and especially to the delight in perfect form and proportion. Christian art was the first which ministered to religion by touching many chords of sympathy, and by expressing with force a wide range of emotion. In the Renaissance, the religious purpose ceased to be paramount, and the element of human sympathy mingled with the love of beauty which was born again with the discovery of the old Greek art. In painting the range of subjects widened, portrait painting became common, landscape began. Sculpture grew bolder in its aims, new decorative arts arose, new styles and uses of ornament were devised. And then, early in the seventeenth century, there sprang up in the Low Countries a new school which broke away from religious motives and heroic ideals, began to take in all the aspects and associations of common life, and found the dissecting-table not too repulsive nor the barn-yard too humble to be portrayed with the highest skill. The same influences which gave force and permanence to this phase of painting affected the other arts. Sculpture, restrained by its conditions within narrower limits, lost in relative importance. Architecture neglected grandeur to seek convenience, pleasure,
the ornamenting of daily life. The skill of the metal-worker and
the embroiderer, which in earlier times had served the worship of
the church or the luxury of the nobles, was now in demand by the
middle classes. This was a revolution. It has gathered strength
with each succeeding generation, and, in this century, has over-
flowed all barriers. So far is its force from being exhausted that its
essential principle, that no human association is alien to art, if art
can touch it, is stronger today than ever before.

If, however, this broadening range of purposes, and this wider
demand for a share in the pleasures of the arts have come to us
by a long process of development, these tendencies have been
reinforced in our time by several causes. A passion of curiosity
has grappled with every branch of the subject. All remains of
the art of other times are eagerly dug out of their resting-places
and put under the investigator's microscope. Libraries are
dredged for every clew that can explain the methods, the theories,
the various relations of each school. This curiosity is far from
being satisfied with mere research. Old theories are reasserted,
old processes revived, old results imitated. The architecture of
the 13th century, the painting of the 15th, are reconstructed, set
up, galvanized into some appearance of life. The East, from
Montenegro to Japan, is made to yield up its best and to furnish
its histories and its methods. Scientific discovery and mechanical
contrivance lend their aid in reproducing the past. The rare coin
or engraving, the majolica vase and the shield of hammered metal
are repeated in exact fac simile, and elaborate embroidery is closely
copied in woven tissues. But our modern appetite is not satisfied
with this influx of things old and foreign. It seeks novelty as
well,—novelty in conception, in execution, in material. The closer
study of nature yields fresh motives and subjects to the landscape
painter, who seeks the representation on canvas of scenes and
effects which would have made his forerunners gasp with wonder
or dismay. The architect uses to the utmost the new power given
him by the improved manufacture of iron. The chemical labora-
tory is tasked to furnish the manufacturer of cotton and silk with
colors hitherto unknown.

It must be confessed that at first sight, the sudden quickening
of so many impulses and aims, is more confusing than satisfactory.
In the temple of art, the casual observer may be pardoned for
thinking the altars a little crowded, and the hum of such various
worship rather bewildering. He needs to survey the ground coolly that he may form some notion of the value of what he sees and not be led astray by delusions. It will not take one very long to find out that the results obtained are not as yet in proportion to the activity displayed. In the midst of many productions that are pleasing, many that are clever, and many that are novel, we discover that few works of our time have any just claim to be called great, and that fewer still, if any, are of transcendent beauty or power. We recognize that research, ingenuity, and the chase after originality, neither produce nor imply the creative faculty on which all enduring art depends.

We should be mistaken if we were to imagine from all we hear of the popularizing of art in our time, that art is really more popular now than ever before. On the contrary, its influence was most wide-spread when its highest products seemed to spring spontaneously from the feelings of the age; when the temple or the cathedral, the heroic statue or the religious picture, were in close accord with the ideas and the aspirations of the people in the midst of whom they were created. And would it not be a delusion to suppose that the excitement which is bubbling up about us is comparable in depth to the ardor that illuminated the greater epochs? There is certainly no parallel within our experience to the enthusiasm with which all Athens hailed the completion of the Parthenon, to the reverence with which all Florence accompanied Cimabue's Madonna from the studio to the church, to the sorrow with which the Romans gazed on Raphael's last picture as it stood above his coffin.

If, however, we are compelled to admit that the interest in the arts is neither so wide nor so deep as in the periods of greatest achievement, we may fairly assert that it is far more varied than it has ever been. It comes into closer relation with other interests; it enters more largely into the daily occupation and pleasure of the many; it associates itself more nearly with family life and with the offices of friendship. Works which, in their original form, were the pride of a single city or the luxuries of a privileged class, are now the ornament of a thousand homes, or are, at least in large towns, accessible to all in public collections. The importance of pleasing the eye must be taken into account in the manufacture of every commodity capable of adornment. Even the shop card is incomplete unless graced with a design which can be called
Japanese. The use of a magic lantern will draw an audience to any lecture. The most popular magazines are those most profuse in illustrations.

These conditions exist in much the same degree in every civilized country. Freedom of intercourse between nations has indeed been a potent cause of the movement we have been considering. It has tended to efface national characteristics and to break down the strength of local schools. On the one hand it has impaired the concentrated power which comes from submission to a well-defined tradition and a recognized discipline. On the other it has widened men's views of the uses and pleasures of art.

The position of America is exceptional chiefly in this, that we have had no traditions to be destroyed. We must go all the way to the rude pottery and bead work of the Indians, to find an art which does not draw its inspiration from Europe. Our masters have been taught in European schools or influenced by European models. Not one of them has directed his followers in methods or in purposes which are in any broad sense his own. We are wholly subject in this regard to the waves of impulse which come from the old world; and this dependence will not cease until some artist shall arise among us of such originality and distinctness of aim, and such mastery of resource, as to draw into his wake the best artistic intelligence of the country. It would be as easy to predict the weather of this day twelvemonth as to foretell the advent of such a leader.

In respect to architecture, however, this view needs some qualification. The buildings of every country have of necessity a character of their own, because the general forms and arrangements of them are governed by the requirements of those who use them, and by the exigencies of the climate. While, therefore, the architect is subject to fixed principles of construction and design, he is constantly forced to adjust these to new forms and uses. Our private houses are adapted only to our own habits. Our railroad stations and hotels tax the ingenuity of men who have studied their art abroad. The grain elevator, by far the most imposing structure in some of our large cities, cannot be copied from European models. And it is in fact in this branch of art that we have hitherto seen the greatest native progress.

When we turn from what is around and behind us, and look forward, we cannot but find in all this various activity the highest
interest and promise. Failures there will be; they are the prelude of achievement. Our mistakes will be countless; they are steps toward better knowledge. Of this at least we can be sure, that no such ferment among an intelligent and vigorous people can fail of having important results.

If there are some obvious tendencies which may retard those results, it is worth while to consider what they are and how to meet them. Such adverse tendencies are the outcome of the conditions we have been considering. They are the natural deviations and exaggerations of the prevalent feeling about art. The element in that feeling which is most characteristic of this age is its eager curiosity, its desire to know all that man has done and all that man can do. Now curiosity is a motive of immense value: it attaches itself to discovery and experiment; it ranges far and burrows deep; but it has the defects of its qualities; it is apt to be superficial, and it is apt to be narrow; it is more prone to concern itself with means than with ends. These are the very defects of the art of our time. We take more pleasure in variety than in quality. Our ephemeral gratitude is for the man who discovers some new thing under the sun. We are quick to be carried away by the new man, the new theory, the new method, and, whether theory or method be new in itself, or a revival of the old, we are easily tempted to invest it with marvelous powers, and to disparage all other theories and methods for its sake. We are so much fascinated by the clever means which lead to an effective result, that we are sometimes a little careless whether the result itself is of much value, whether it can give real pleasure to the eye or mind if divorced from the sense of the skill and labor which produced it. Hence comes a noticeable disposition in our architects to exaggerate the effective feature of a building, a frequent desire of our painters to put that on canvas which shall catch the public eye at an exhibition, and, in general, the excessive value ascribed to merely technical excellence.

A common effect of an awakened enjoyment of the fine arts, or of some application of them, is a desire to produce something. The act of production is a great pleasure; it is also of great use, if one bears in mind what its uses really are. It exercises the mind, the eye, and the hand; it stimulates observation; it ought to arouse a sense of the great difficulty of accomplishing any good thing in any branch of art. Unfortunately it is apt to be followed
by an undue estimate of the value of the thing produced. It is in human nature that we should be pleased with what we make; and the praise of sympathizing friends is delightful. So it too often happens that the tyro fancies he has been rapidly advancing on the high road, when, in fact, if he has been ill-guided, or if he is deceived in thinking himself endowed with the artistic faculty, he has been toiling toward the end of some blind alley. In his satisfaction with his own performance, he misses the lesson that no work of real value can be produced without long labor, intelligently directed. If his occupation is mere pastime, there is no great harm in this, and still less good; but if he is in earnest he dooms himself to misunderstanding and disappointment.

The spirit of inquiry and experiment is very far from being the only, or the deepest motive in our admiration of beautiful things. I dwell upon it, however, because it is with us a motive of such energy, that we must look to it as a main element in our future progress. Let us have the whole benefit of it then; but let us guard against the errors into which it may lead us. For this we can hardly begin too early. When a child is old enough to go to school, he is old enough to be taught the use of a pencil. His teacher should be competent to instruct him in the rudiments of drawing as well as in those of writing. A few half-hours a week throughout his course at school will teach him enough of drawing to enable him to put on paper a representation, correct as far as it goes, of any object he wishes. So much every child has the capacity to learn, and most children like to learn it. There is no excuse for leaving out of our systems of education, the elementary training of a faculty so simple, so universal, so useful. Such drawing is not art, but it bears much the same relation to art that the copy-book does to literature, and the rudiments of arithmetic to business or science. As much as this is true even of routine instruction. Of course vastly more is gained in the same amount of time if the instruction is given with understanding and spirit. It may then be used to arouse the powers of observation, to awaken the sense of beauty, to implant in the pupil's mind a just notion of the principles of design, to lay a foundation of an appreciation of the arts. The freer and more intelligent methods, which are making their way into our common schools, will be not less fruitful in this than in other branches. A few cheap prints and casts, well chosen, will be of great help to a teacher who can employ them in his instruction.
At the end of his schooling, the pupil, whose aptitude leads him to give his whole time to some branch of art, will bring to it some foundation of knowledge, or at least some facility of hand. He will then pass under the direction of a teacher, skilled in the methods followed in France, in Germany, or in England. Every well established method has its advantages. The choice of the method is of less consequence than the choice of the instructor. The vital consideration in a school of art is that, whatever the method may be, the teacher shall believe in it, shall be thoroughly trained in it, and shall have an enthusiasm for his art, and the faculty of imparting his knowledge and enthusiasm to others. It is, however, in the organization of such schools, that we should especially bear in mind the conditions of our art, its variety and range, its tendency to be superficial, and its tendency to be narrow. There, at least, should superficiality be discouraged. The actual work should be made as interesting as possible, but not at the expense of thoroughness; it should be carefully adapted, at each step, to the pupil's previous attainment; it should aim at nothing less than at giving him the full mastery of his tools. But, besides being thorough, the work of the school should be various in kind. More reasons than one make it important that education in the fine arts, and education in the industrial arts, should proceed side by side. The student in each department gains by study and observation in the other. The close connection and interdependence of the two cannot be severed at this stage, without some disadvantage to the artist, certainly not without grave detriment to the designer. Moreover it often happens that, after a few months of trial, the student of industrial art discovers his vocation to be in the freer fields of painting or sculpture; more often, that the student of painting finds that decorative art is his true calling.

It is most important, too, that the pupil shall have free access to a museum, not necessarily large or costly, but one whose collections are representative of many forms and schools of art. It is there that, by study and comparison, his judgment will be formed, and that whatever is one-sided in his instruction may be corrected by his own intelligence. It is not requisite to dwell upon the value of a museum for the larger purposes of forming public taste and adding to the general enjoyment; but we must not forget that that value depends wholly upon the judgment with which the collection is made. Its directors should avoid spending their
funds upon works which are the fashion of the day, because enough of such can always be procured by loan. They should avoid purchasing works for any other reason than artistic value. They should avoid subjection to any theory of art, for their function is not to give judgment, but to furnish material for the judgment of others. They should aim at making their collection good in quality, varied in kind, interesting in every part. Fortunately the abundance of excellent reproductions enables these principles of selection to be applied to inexpensive as well as to costly museums. Finally, art in America has no need more plain than that of clear, broad, instructed and reasoned criticism. Our standard in this regard is not high. That curious mixture of fulsome praise, careless censure and studio slang, which frequently fills the fine arts column of a newspaper, is an illustration of this; no writing so worthless on any other topic would be admitted into respectable journals. When we examine criticisms which are more elaborate, and should be more weighty, we find them, on the whole, below the grade to which we are accustomed in other subjects. The critic in science holds himself under strict accountability for his facts and his opinions. The critic in literature feels bound to weigh his judgments, and to estimate, in their due proportion, ideas as well as style; he may be paradoxical, but he cannot with impunity be absurd. The critic in art too often makes free with such restraints; he is much occupied with merely technical merits; he is apt to exalt his notions to the dignity of principles, and to treat with easy disdain what does not conform to them; he assumes too readily the ignorance of his public. Our criticism of the arts,—I speak of the rule, not of the exceptions,—lacks knowledge, impartiality and breadth, and is much given to that dogmatism which is nothing but the emphatic assertion of half-truths.

The critic who has a just sense of his responsibility, will constantly bear in mind the truth well expressed by Mr. Ruskin, that "painting, or art generally, as such, with all its technicalities, difficulties and particular ends, is nothing but a noble and expressive language, invaluable as the vehicle of thought, but by itself nothing." Such a critic will regard the force and beauty of the language which the artist uses in his works, as being "necessary to their greatness," but not the tests of their greatness. He
will recognize the vast range of the thoughts and feelings which can be expressed or suggested by art, and the countless means of expressing and suggesting them; and he will value the means as they accomplish well their end. He will censure work marred by false or imperfect methods; he will censure more severely, work which is barren of thought, however skilful may be the methods employed in it; he will reserve his highest praise for the adequate expression of noble and beautiful ideas; and he will treat generously every honest effort toward this high end.

What is true of the critic is true in a degree of us all. Each of us, in his place, may, by taking thought, do something to urge the onward march of art in America, and to check whatever may be wayward in its impulses.

Mr. J. S. Clarke, of Boston, spoke at some length on the general subject opened by the Report, but there was no other debate. The chairman, Mr. Sanborn, then presented an abstract of a Paper submitted by Mr. W. F. Ford, of New York, on Municipal Indebtedness. Mr. Ford said that a circular of certain New York bankers, in 1870, dwelt upon the exceptional value of municipal bonds as investments, owing to the fact that the city, in borrowing money, although exercising a sovereign power, contracts as a private corporation, and was, therefore, amenable to the courts in relation to the enforcement of contracts; in short, that a city would be compelled to pay its debts through the issuing of writs of mandamus. Harm was done by inducing the investing classes to purchase city bonds freely without giving due attention to the condition of a given city, and the amount of obligations it might be issuing. Later experience has shown that the writ of mandamus is all powerful only about as far as it is not really needed. In other words, that a rate of taxation so high as to seriously encroach upon the bread and butter of a community cannot be collected. The attempt to do so causes a depopulation of the city. In contrasting the rise of municipal credit in the United States, with its origin in England, it is to be noted that while in England the doctrine, that a municipality has an implied power to borrow money, has never obtained tangible foothold, it has been.
held by some of our State courts that a city has such an implied power, merely by virtue of its existence as a body corporate and politic. It was pointed out how the partial acceptance of this doctrine in the United States has done harm by furthering the extension of the credit system in the United States as a distinctive feature of local government. The rulings of the United States Supreme Court have been dangerously near the pernicious doctrine that municipal bonds have the qualities of commercial paper. Happily, it can now be said that the country has fairly escaped the perils which would have followed the adoption of this doctrine, and that, in consequence, the purchaser of a municipal bond is bound to enquire into the legality of its issue. The pernicious influence of the borrowing business as a feature of local government in the United States was dwelt upon, and it was asserted that the history of the Tweed regime in New York city, instead of going to prove, as is often asserted, the failure of the representative principle in dense communities in America, was no more nor less than the abuse of credit unwisely given. In closing, a summary of many special reports was given from the principal cities of the United States, showing a wide-spread improvement in the condition of municipal finances.

A similar view, supported by many figures from the forthcoming census report of 1880, had been presented by Mr. Robert P. Porter, of the United States Census Bureau, at a special session on the 8th of September. But the full text of neither of these papers has been received by the Secretary.
OFFICERS OF THE ASSOCIATION. 1879.

The officers of the Association, elected January 8, 1879, are as follows:—

President.
D. C. Gilman, Baltimore, Md.

Vice-Presidents.

Benjamin Prince, Cambridge.
H. C. Lea, Philadelphia.
Thomopoe D. Woolsey, New Haven.
Martin H. Anderson, Rochester, N. Y.
J. M. Barnard, Boston.
J. W. Hoyt, Wyoming.
Isaac Sherman, New York.
Rufus King, Cincinnati.
W. H. Ruffner, Richmond, Va.
W. J. Astenholm, Charleston, S. C.

Acting Secretary.
F. B. Sanborn, Concord, Mass.

Treasurer.
Hamilton A. Hill, Boston (at Pemberton Square).

Directors.

T. C. Amory, Boston.
J. S. Blackbird, Boston.
E. F. Halse.
George T. Angell.
William Minor, Jr.
Mrs. John E. Lodge.
Carroll D. Whitney.
Mrs. C. H. Dale.
Mrs. Henry Whitman.
William Watson.
Hamilton A. Hill.
Nathan A. Law.
E. C. Guild, Waltham.

Dolman E. Eaton, New York.
H. Villard.
Amos P. Stone.
Jehiel T. Davies.
John S. Libby.
Derry Belmont.
Horace White.
E. O. Wines.
George Ward Nichols, Cincinnati.
T. M. Fort, St. Louis, Mo.

The above-named persons, with the Chairmen and Secretaries of the five departments, make up a Council or Executive Committee, which meets in Boston on the last Saturday of every month. The department officers are as follows:—

I. Education.—Prof. W. T. Harris, St. Louis, Chairman; Mrs. I. T. Talbot, Boston, Secretary.

II. Health.—Edward Wigglesworth, Jr., M. D., Boston, Chairman; D. F. Lincoln, M. D., Boston, Secretary.

III. Finance.—David A. Wells, Norwich, Conn., Chairman; George Walker, New York, Secretary.

IV. Social Economy.—Prof. W. B. Rogers, Boston, Chairman; F. B. Sanborn, Concord, Secretary.

V. Jurisprudence.—Prof. Francis Wayland, New Haven, Chairman; Prof. James B. Thayer, Cambridge, Secretary.

Boston Jan'y 8 1879

My dear chas Talbot:—
You told me last year on
the Departmen of
Education, that we
had now chosen
you Secretary. The
names of the depart.
Great Committee are enclosed, but few of them have done any work since Judge Goodig's death. Can you not put on some new members and give vitality to the Department?

Yours truly,

H. B. Santon

To Dr. Talbot,

Boston
II. REPORT OF THE DEPARTMENT OF EDUCATION FOR THE YEAR 1880-1

By Mrs. Emily Talbot, Secretary of the Department

Read September 6, 1881

The Education Department of the American Social Science Association presents for your consideration a group of Papers, the discussion of which it is hoped will prove to be useful. It has been the aim of this Department to bring to your attention those topics which seem, to leading instructors, of vital importance to the best development of the educational interests of the country. The impression made upon society has been evident, and it is believed to have been salutary.

It is but two years since the Rev. Professor Peabody, of Harvard College, was invited to read a Paper before this Association upon School Suffrage for Women, in which occasion was taken to urge the importance of giving woman her full influence, authority, and power in the management of schools, and in the choice of their functionaries. Since that time, of the two millions of women in the State of New York alone, all those qualified by age and education have had this privilege of school suffrage conferred upon them.

This Department has directed attention, year by year, to the interests of Public Libraries and their relations to the public schools; and town after town, and State after State have become interested to discover their duties and obligations in this matter. The discussion is still going on. The same is true of the prominence which has here been given to the importance of the Newspaper as an educator: and your Committee believe that their suggestions have been the occasion of many timely articles on the subject in the public press of many parts of the country.

The immense service to the higher education of the United States, which would result from an annual national conference of university and college presidents, was suggested by this Department, some years since, in these words: "That such conferences would secure a united and healthy growth in those educational methods which are regarded as essential to success in all countries; while entrance examinations, courses of study, electives, degrees, discipline, and other matters of mutual interest, might be so adjusted as to save perplexity to the parents, and to the teachers of the fitting schools,—and what is also of great importance, time to the students." It is well known that local conferences on specific subjects, have been held from time to time, notably in the State of Ohio, and more recently by the most prominent colleges of New England. The good which has already resulted to limited sections of the country from this interchange of opinions, is indicative of the great benefits which might be expected, when by delegates, in council, every college in the land shall be represented in such a Conference. No body of men could come together whose proceedings would be watched with deeper interest, or who could command so powerful an influence, both on the present and future welfare of this country.

The abolition of sex disabilities in education, which the Association has advocated from its foundation, has steadily gained ground. To say that more
than one-half of the institutions which possess the right to confer degrees, and do so, without respect to sex, are in the States of the West, no longer dispose of the subject. Russia, Italy, India, and Spain have, one by one, removed obstructions to the higher education of women. Latterly the conferring of degrees by London University has been followed by such a recognition of women students at Cambridge, Oxford, and Glasgow, as to foreshadow but one result; while the Senate of the University of Durham has passed a resolution permitting women, who shall have fulfilled the requirements of the institution respecting residence and standing, to take the public examinations and the first degree in arts. The queen of England has ordered "that the degrees of bachelor and master of arts, and bachelor and doctor of medicine, of laws, of science, and of music, conferred by the University of Adelaide, South Australia, on any person, male or female, shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence and consideration throughout the British possessions." Thus the English are rapidly surpassing the self-satisfied Americans in the university advantages offered to women.

These are a few of the topics on which this Department has struck the key-note for progress in the past. In the present no subject (relating to education) is so important to the whole country as the magnificent plan designed by Congress for the national support of both literary and industrial education. The President of Boston University, in the Year Book of 1881, speaks of the opening section of the Educational Bill, passed by the United States Senate last winter, as "an evangel of blessing to unborn millions;" the provisions for the distribution of funds, "such as should commend themselves to patriots of every section and party," and the giving to women equivalent advantages with men, "wise and just and statesmanlike." This Association and the educational public have here a duty, to appreciate and sustain the work attempted by Congress, and by every means in their power help to carry it forward to success.

NOTE.—The Papers presented by Mrs. Talbot at Saratoga, besides those on Infant Development as printed on pages 1-52, and Prof. Hall's Paper on pages 56-76, were those by General Eaton of the U. S. Bureau of Education, Dr. Gallaudet on Deaf-Mute Education, and by Prof. A. G. Bell on Articulation in the Instruction of the Deaf. None of these three papers have come to hand for printing here, and they are therefore omitted.
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REPORT OF THE SECRETARY OF THE DEPARTMENT.

That portion of Mrs. Talbot's Report having reference to the subject of Infant Development was as follows:

The importance of making some systematic effort to record the development of infant life has occupied the thoughts of many people in various countries for a long period, and observations of isolated cases have been made, such as those by Mr. Alcott, on a group of children fifty years ago, in Pennsylvania; that by Taine, on the "Development of Language in a Young Child;" that by Charles Darwin, on the "Expression of the Emotions;" and by Professor Preyer, on "Psychogenesis." In a more modest way, and from the impulse of strong parental feeling and curiosity, rather than from any deliberate intention of making a scientific investigation, mothers here and there, in this and other countries have kept a diary of the physical and mental development of their children. It was suggested at the last General Meeting of this Association that in this field a work which ought to be seriously undertaken, and that this Department should begin the difficult task. The value of the suggestion was confirmed by discussion; advice was sought from men of science and psychologists, gentlemen eminent in their specialties; correspondence was opened with distinguished Europeans, and one result may be seen in a simple and concise register which, in the form of circulars and by reprints in many different newspapers in this country and in England, has reached tens of thousands of readers, and brought to this Department a wide and interesting correspondence. It is too soon to announce results; too soon to formulate any theory of the physical and mental development of children, but we are already in possession of interesting facts. We have hundreds of mothers engaged; many of whom have been trained in our universities and colleges to make investigations with accuracy, and to weigh evidence with candor. With patience and perseverance we hope that this Department may soon make such progress in the collection of facts as to justify the attempt, that in the course of the next decade a continued series of observations, in large numbers, may reveal order in the variations of phenomena, and that some portion of the secret of the mental and physical development of infants may be discovered. The interesting communications from Mr. Darwin and Mr. Alcott herewith submitted, will illustrate what the Committee have aimed to do, which will also appear in detail from the Register itself appended to this report:

LETTER OF MR. DARWIN

DOWN, BECKENHAM, KENT
RAILWAY STATION, ORPINGTON, S. E. R.,
July 19, 1881.

Dear Madam:—In response to your wish, I have much pleasure in expressing the interest which I feel in your proposed investigation on the mental and bodily development of infants. Very little is at present accurately known on this subject, and I believe that isolated observations will add but little to our knowledge; whereas tabulated results from a very large number of observations, systematically made, would probably throw much light on the sequence and period of development of the several faculties.

This knowledge would probably give a foundation for some improvement in our education of young children, and would show us whether the same system ought to be followed in all cases.
I will venture to specify a few points of enquiry which, as it seems to me, possess some scientific interest. For instance, does the education of the parents influence the mental powers of their children at any age, either at a very early or somewhat more advanced stage? This could, perhaps, be learned by schoolmasters or mistresses, if a large number of children were first classed according to age and their mental attainments, and afterward in accordance with the education of their parents, as far as this could be discovered.

As observation is one of the earliest faculties developed in young children, and as this power would probably be exercised in an equal degree by the children of educated and uneducated persons, it seems not impossible that any transmitted effect from education could be displayed only at a somewhat advanced age. It would be desirable to test statistically in a similar manner the truth of the often-repeated statement that colored children at first learn as quickly as white children, but that they afterwards fall off in progress. If it could be proved that education acts not only on the individual, but by transmission on the race, this would be a great encouragement to all working on this all-important subject.

It is well known that children sometimes exhibit at a very early age strong special tastes, for which no cause can be assigned, although occasionally they may be accounted for by reversion to the taste or occupation of some progenitor; and it would be interesting to learn how far such early tastes are persistent and influence the future career of the individual. In some instances such tastes die away without apparently leaving any after effect; but it would be desirable to know how far this is commonly the case, as we should then know whether it were important to direct, as far as this is possible, the early tastes of our children. It may be more beneficial that a child should follow energetically some pursuit, of however trifling a nature, and thus acquire perseverance, than that he should be turned from it, because of no future advantage to him. I will mention one other small point of inquiry in relation to very young children, which may possibly prove important with respect to the origin of language; but it could be investigated only by persons possessing an accurate musical ear. Children, even before they can articulate, express some of their feelings and desires by noises uttered in different notes. For instance, they make an interrogative noise, and others of assent and dissent in different tones; and it would, I think, be worth while to ascertain whether there is any uniformity in different children in the pitch of their voices under various frames of mind.

I fear that this letter can be of no use to you, but it will serve to show my sympathy and good wishes in your researches.

I beg leave to remain, dear madam, yours faithfully,

CHARLES DARWIN.

TO MRS. EMILY TALBOT.
MR. ALCOTT'S LETTER.

CONCORD, Massachusetts, August 31, 1881.

Professor W. T. Harris, Orchard House, Concord:

Dear Sir: You ask me to give you some extracts from my notes on Infancy, taken during the earliest years of my children. The following are now submitted to your perusal. In copying them from my manuscripts I beg you will remember that (while they may gain in scientific clearness) they may lose some of the attractiveness you found in them, when read in connection with the reflections and inferences made at the time of writing. The psychology must remain for the present untouched, but, in copying for your use, I allowed myself to improve the phraseology, making an occasional change for the sake of greater clearness. I confine myself to notes taken during the first three months of my eldest child's existence.

NOTES FROM THE DIARY.

March 16, 1831.—During the first days after birth she slept most of the time. As she gradually awoke and was exposed to the light, she opened her eyes as if intent on adjusting these for the purpose of seeing. Luminous objects particularly attracted her notice. While viewing these her hands moved instinctively, her arms were extended and drawn toward the mouth, which also appeared to be sensitive to the stimulus by frequent movements of the lips and tongue.

Tenth day after birth.—Her features are daily assuming a more sensitive and mobile expressiveness. Today her attention was arrested by the contrasted colors of her mother's dress, and her attention was accompanied with a smile. She sleeps less, and is more observant (if I may say so) when awake.

Fifteenth day.—I notice an increased power of the sense of sight. A watch was held before her till she caught the sight of it, and followed its motion with her eyes while moved in various directions.

Twentieth day.—Her progress can be seen and marked daily, yet almost imperceptibly. Her existence is pleasurable, if the absence of crying, and her quiet moods, are trustworthy indications. If any sense brings the greater delight, it appears to be the sight; particularly when bright objects are placed at some distance they attract her notice. The morning hour, or the times of waking from her slumbers during the day, bring a freshness of perception.

Twenty-fifth day.—Her hands, when she is awake, are kept in constant motion, and these motions are becoming daily more energetic and direct, as being brought under the control of the will.

Thirtieth day.—When addressed, she turns towards the person speaking, as if eager to catch the tone of voice and distinguish the individuals; and the periods of attention are more prolonged and frequent. I am unable to discover that she distinguishes particulars from generals, as yet; or that recollection has dawned upon her, by which to discriminate one object from another. I imagine this belongs to a later stage of growth. Her progress has been chiefly indicated by longer-sustained efforts of attention to sounds, to form, and to motions, of which she appears to be already vaguely cognizant. Placed before a mirror today, she seemed for an instant to have caught the reflected image of herself and was lost in wonder at the vision, while this soon faded and itself became lost in the surrounding objects of the nursery. So the poet Shelley says:
The babe
In the dim nearness of its being feels
The appulses of these sublunary things,
And all is wonder to the unpracticed sense.

Fortieth day.--Since the last record her progress has been marked and
significant; she listens to voices for some instants, and is attracted by the
soft and suppressed tones; violent notes displease her. Her hours of wakeful-
ness become longer daily, and she fixes her attention for longer periods. She
takes much satisfaction in looking from the window at objects and movements
outside. She has not yet been taken out of doors.

Sixtieth day.--A vase of flowers standing upon the mantelpiece attracted
her notice, as she lay on her mother's lap, and she showed her pleasure at the
sight by a smile. Her sleep seems mostly undisturbed and dreamless. Careful
attention is paid to her dress, a disregard of this and of air and bathing, under
a nurse, being avoided by the care which her mother gives.

Sixty-ninth day.--Lying in her mother's lap today, she caught a glimpse
of her mother's finger ring, set with amethyst, at which her pleasure was great,
keeping her attention on it for several minutes.

Seventy-seventh day.--While lying on the sofa she observed the varied
colors of its cover; the color of her dress also, which she attempted to seize
and detain in her hands. She is now almost able to hold her head erect without
other support. Six days ago, the emotion of terror was excited on beholding a
distorted face (May 24), and manifested by loud outcries; she seeking protection
from the face in her mother's arms. It was long before she was restored to her
accustomed tranquility—the vision perhaps reappeared in memory, haunted her fancy
and brought tears to her eyes.

Seventy-eighth day.—On being carried into the yard she seemed lost in
wonder at the varied pleasure. The open mouth, hands motionless, eyes expanded,
betrayed the new sensations. She has now obtained sufficient command over her
hands to grasp objects presented and hold them at will. This affords her an
apparent satisfaction.

In closing, I transcribe a single reflection from the notes:

How wonderful is the progress of infancy; how involved in mystery! Re-
peated and successive acts of the senses precede the emergence of the indwelling
mind into the light; and all emotions of the mind are unlike the movements we
note in matter. We cannot affirm of this, it is, as we hesitate not to affirm
of that. Now this addition is to be made to it, and now that: now it is about
exhibiting such and such specific modifications—new elements are being inter-
ingled; now observe how it behaves! But while we thus note the mind's mysterious
operations as these move ceaselessly and noiselessly on, behold! ere we are aware,
it has assumed new forms, unexpected changes occur, progress has been made, and
the mind is.

A. BRONSON ALCOTT.
In the absence of Mrs. Talbot, Mr. Sanborn read at the Saratoga Meeting of 1881, the cases reported by Mrs. Talbot from her correspondence with fathers and mothers, previous to August last. Several of these cases, as presented, with remarks by Mrs. Talbot, are given below, and following them will be found the essays of M. Taine, Mr. Darwin and Mr. F. H. Champneys, who have made careful observations in France and England. Mrs. Talbot's cases, with one exception, are from the United States,—the exception being the child of a Dutch family at Delft.

CASE A.

In this case, the following observations and suggestions are of interest:

The father of these children is a teacher. Both parents were born in New England, but at present reside in Virginia. One of the children was born in North Carolina, the other in Virginia. The interest of this observation seems to have centered upon the comparative development of the two children at the same age. The weight of No. 1 at birth was seven pounds; of No. 2, eight and a quarter. At the age of six months, the weight of each child was the same. No. 1 was nursed till he was sixteen months old, and liked fresh figs especially. No. 1 smiled when one day old. No. 2, when two days old. No. 1 sat alone on the floor when five months old. No. 2 is still too young for a comparison to be made on this point. No. 1 says "Titten" (Kitten) at 14 months. No. 2 appeared sensible to sound three hours after birth, held up his head and followed a light with his eyes at three weeks, noticed its hand at five weeks, and held a plaything at six weeks.

The mother writes to Mrs. Talbot, as follows:

ALEXANDRIA, VA., July 11, 1881.

Dear Madam,—You asked for suggestions, one or two of which I now make:

a. It seems to me that a question or two in regard to the character of food, frequency of feeding, etc., might be valuable in this connection, as observation teaches me that the mental development is largely influenced by these.

b. My own children, brought up "by rule," and neither they nor their parents using any form of stimulating food, do not develop as early as their cousins, not under the same treatment, but are both of them exceedingly rugged. Where in the series, whether first, second, or only child, is another determinative influence. My second child gives promise of excelling his sister because of her attention, example, etc. (I make a very incomplete account of this baby of three months.)

c. The question as to the earliest exhibition of consciousness, seems to me a little ambiguous. Conscious of hunger, of the difference between arms and the bed, certainly,—yet I doubt that being the meaning of the question.

My first child, at five months, moving her finger over a plaything, heard the scratching sound thereby occasioned, stopped and listened, repeating till she had evidently clearly established the relation between the motion and the sound. This I have been accustomed to consider her first intelligent act, yet she had long before learned to distinguish between her mother and other attendants.
Medical works give six to ten hours as the earliest time at which hearing is possible, but my boy, born at 1:30, certainly heard, and nervously started at the sound of the cock crowing at 4:30.

This mother has raised questions of great importance, which may well occupy the attention of our observers for a long period. The statement (a) that mental development may be influenced by the character of the food given, is a broad one, and will admit of experiment. The recorded experience of different parents on this subject of when and how to feed a young child, would be of great service. In the statement (b), this observer concludes that children brought up by rule, that is, fed regularly as to time and quantity, are thereby retarded in their mental growth; a gain, however, in physical strength is intimated. While considering this question of how to feed children, it is desirable that observers should read Payy "On Food," or other authorities. Those who have already accepted the theory of "rule feeding," should recollect that an infant sometimes falls asleep before the needed amount of food is taken and will then fret for more before the appointed hour and thus, fatigued and faint, not be in a condition to easily digest food when it is next taken. The influence of undue prejudices must be guarded against in making observations, and because overfeeding sometimes induces illness care must be taken not to follow the other extreme and weaken a plump-looking child by the too long continued use of milk and farinaceous pap. The significance of the first appearance of the teeth should be noted and how long their legitimate use may with wisdom be delayed. Idiosyncrasies of taste and cravings will often be observed, and may well be regarded. Because this tender being is human, a moderate degree of change in its surroundings, and of variety in its food may be found essential to its physical and mental health. To pass safely through illnesses and to endure exercise and moderate excitement without fatigue will be the best test of these experiments, concerning food. Under (c), this observer expresses doubt as to what is meant by the "earliest exhibition of consciousness." To throw more light on the growth of self-consciousness in young children from the parents' point of view, is one of the objects of these studies. The subject has been examined and discussed by Prof. Preyer and Bernard Perez.* The children under consideration are peculiar from the fact that they were observed to smile the first days of their existence. The state of the subject under observation should be carefully considered in deciding upon a sign of development like that of the first smile. The facts connected with the delivery, if rapid and easy or slow and difficult, with development, whether perfect or imperfect, with the natural disposition, if it be merry or otherwise,—all these circumstances should be considered.

It will be noticed that these children were born in a more southern latitude than those of any other recorded cases which have been made public. It will be well to inquire whether this fact tends to hasten or retard development, or if any special result from such a circumstance is noticed by any observer.

CASE B.

A STUDY ON HEREDITARY TRAITS IN THE CASE OF C.W.S.

(Madison, Wisconsin, May 9, 1881)

It was the father's system to observe certain inherited traits or to seek for their exhibition. He did not come of a literary or voluble race. Neither the father nor mother of the child in question is fluent in speech. The father is rather reserved, silent, and is accused of sullenness, frequently, from distaste
of exercising his vocal functions. He dislikes talk in others even to the extent of being prejudiced against lectures, preaching, society, and even singing, except, in the latter case, singing that is scientific, so to speak. The mother does not talk much, though having no such prejudice against it in others,—preferring it, rather. It might be expected that the child would not show his intelligence mainly by fluency in articulating words. It is the father's opinion that speech comes natural, without being taught. He has observed in this child a gradual increase of power in the exercise of the vocal organs with the gaining of the teeth, and the strengthening of the various muscles of the mouth and chest. He is surprised indeed to notice how loud a voice a child can produce, even a very young child, compared with young animals of other species. It is to be observed also that the child seems to take up at times a habit of amusing itself by making various tones, or producing varying inflections of the voice—a sort of sound like preaching heard at a distance, or a ranting like a poor actor, then a hallooing, and again, as at a year old, of sounds alternately high and low at short intervals, somewhat as a person learning to sing practices octaves. Although deficient in vocal tastes, the father has a perhaps exceptional facility in acquiring arts of manual dexterity. He plays readily on half a dozen musical instruments, violin, violoncello, flute, zither, piano, and, as secondary to these, the organ, which requires a different touch not so easily acquired by many good musicians. As a musician he has had good instructors, and appreciates and performs music of Bach, Beethoven, Mendelssohn, Wagner, Berlioz, etc., and takes pleasure in the literature relating to this art. Naturally a musician cannot be wholly either right or left handed. Both hands and arms must be developed. Therefore it was with some curiosity that the child was observed, whether he would show marked preference for either hand. He does not. He shows remarkable impartiality of hand, but still there is an implied exercise of the right, as in taking up his playthings and throwing them away when playing or tired of them.

This might easily be inherited, for though a musical education would develop both hands, to paint and write and draw and otherwise use one hand would give that an added vigor which would have its influence. Then, too, in doing a certain thing, it is certainly a disadvantage to try to do it in different ways when its perfect doing is the result of repetition, and of acquiring habits relating to unconscious action rather than a discipline. It is the difference between art and mere tentative attempting.

It was the desire of the father to have the child show a preference for his own art, that of painting. Therefore he encouraged every implied turning towards this temperament. The wish of the child to be out of doors, his contented pleasure when there, his enjoyment in riding both in a baby wagon and in a buggy, seemed to imply that pleasure in nature which was desired. Tests were made to see if he distinguished tones, by putting him upon the piano and playing softly, even from earliest days. It was, however, very lately that he implied any recognition of musical tones, though he early gave notice of delicacy of hearing, yet seemed insensible to sounds like thunder, or cannons firing, for several months. Now he has learned to understand tones of voice, and if told not to do a thing, understands it as a prohibition, though he may not obey, having, of course, no fear of punishment from disobeying; therefore, he will sometimes scamper away when he sees any one coming to interrupt his destructive employments. Destructiveness seems prominently displayed. His pleasure is to tear things, paper, strings; a probably curable trait.

When the violoncello is played, he likes to get up along side, often leaning against it; not from love of music, but to be in the thick of the stir. He has to be watched lest he put things into the round holes, another of his traits.
That there are retrograde days, and days of progression, seems evident. Some days he will learn half a dozen new tricks, then he may go for a month without trying anything. When he gets some "new wrinkle," he is not satisfied unless he can be doing it all the time. When learning to bear his weight on his feet, he must be attempting it with wearisome pertinacity. I think such childish habits as squinting the eyes up, sticking the tongue out, putting the head one side or the other, or hiding it, playing "peep," or "pata cake," should be noticed as things easily to be dated. The pulling a handkerchief off his head and laughing heartily at it, occurred when but a few months old.

Considerations as to facility with his fingers and hands should be noticed; the power of picking up very small things, of putting a stick to a definite place, as through a hole, etc.

That a child does most of his actions by inherited instinct seems to me most plausible. I think, as comparing children with dogs, that, aside from the physical condition, the inherited taste is first shown. Little puppies of a retriever breed will begin to take things hither and thither in their mouths long before puppies of an uneducated ancestry, though there will be a difference in talent and exceptions. In children, besides the natural self-assertion of a young child, there will continually crop out a hint of an inherited facility, which he uses without being taught. Then there is association. Having always seen a dog about, he has no fear of a dog, wants to pull him and roll about with him, does not fear the bark of a dog, though a little startled, if sharp; but of horses he has fear, and a certain fascinated interest,—wants to know them, and yet is afraid.

I throw out these suggestions without much thought of their proving particularly valuable, but in a belief that your list of questions would, in a scientific sense, be made more valuable if extended to individual qualities, to determine exactly what is natural to all children, what peculiar to the exceptionally intelligent, and what is the result of heredity and association.

The child above described by his father was born April 14, 1880; his parents were born respectively in Ohio in 1840, and in Minnesota in 1851. He weighed $3\frac{1}{2}$ pounds at birth, $14$ at three months old, and $21$ at a year old, when also he was $29\frac{1}{2}$ inches in height, and was strong and healthy. He smiled at five weeks (?), exhibited consciousness at eleven weeks, noticed pain at two weeks, noticed the light before eight weeks; could creep at ten months, and stand alone at twelve months.

CASE C.

ASHBURNHAM, MASS., July 18, 1881.

The children are twin boys, born June 5, 1881; the elder weighed 7 pounds, the younger 6, at birth. The elder had a thick, round head, plenty of dark hair, was stupid and sleepy; the younger had a head narrow and high, long from front to back, with no hair; he was active, with eyes wide open and restless; his mouth open and moving for food from the first. The elder seemed considerably the most mature. He recognized the light of a window (evidently) at the age of 20 hours,—as he was looking at it he was turned round so as to bring the other side towards the window, and at once turned his head toward it. He recognized sound in a day
or two. The younger recognized light and sound in the same way a day or two later,—in general he was a little later in all his developments.

June 15.—(Ten days old.) Both evidently noticed a piano played in another room,—stopped their incessant baby motions to listen, and put on the same listening look as adults do. This was repeated for a day or two, at times when the piano was played; but afterwards as the sound grew familiar they ceased to notice it.

June 25.—(Twenty days old.) Both lift their heads strongly, but cannot hold them up,—the elder, as usual, a day or two ahead. Between the third and fourth weeks they are beginning to fix their eyes on objects as distinct. The elder clearly looked at me as I talked to him, and also at a hand moved in front of him. Neither can yet follow an object, or knows which way to turn for a sound. They look at any one speaking, as yet, only occasionally and for a moment. They wink at a sudden sound, but not at a hand struck close to the eye. The nurse can wash the eye at first, or throw water in it without their closing it. Tapping them all round the eye within half an inch of it, they do not move till the taps reach the nose near the inner angle, when they partially wink. They spring at a sudden sound, as of a door shutting.

July 2.—(Twenty-seven days.) The mother and babes moved to a new room down stairs. They looked round in wonder, stared evidently, in their new quarters. This soon ceased, in the main, so far as their new room was concerned, but is renewed when they are carried about.

July 4.—The bells and firing woke them rather early, and the younger soon grew nervous, so as to spring and throw up his hands at the explosion of a fire-cracker or other noise. This subsided as the morning clangor died away.

July 7-9.—(Fifth to sixth week.) They fix their eyes sharply on an object moving, or a person speaking, close in front of them. They begin to take evident pleasure in being talked to, drawing towards a smile occasionally when played with. They begin occasionally to turn their heads a little towards voices quite near,—that is, there seems to be the first dawn of an intelligent motion; mostly, however, mere aimless turning as yet. Their eyes, in their incessant rolling, usually move together, but not unfrequently they turn different ways, generally inwards; that is they look cross-eyed. This was not noticeable for the first three or four weeks, but evidently comes from the child's ill control of his muscles, now that he has gained the power, and attempts to look at objects definitely.

July 12-15.—The eldest has now no difficulty in looking at a person speaking to him, or at a near moving object, when directly in front of him. He evidently sees a person moving at a distance of 8 or 10 feet; the younger cannot do this yet. The elder now for a few days manifests pleasure in being talked or sung to, his face beaming, his arms striking out more vigorously, and himself often springing up towards the speaker. He looks at our faces now, with an intelligent look. The younger manifests all this in a less degree; that is, he traverses the same ground a few days later. The younger likes to be "cuddled" best; the elder has more of the "go it alone." Four or five of us are tending them, off and on, during the day, so that neither as yet seems to know the mother or any one in particular. If there is any special recognition it is occasionally of the housemaid, who comes in and sits with them while the family are at meals,—it does not amount to recognition, but to manifest liking of her voice and manner. They plainly
know, as they lie on their mother's arm, her motion of preparing to nurse them, and change their hungry crying to an impatient brooding noise.

A singular thing was remarked by the nurse when she first undressed them (2d day), and has been noticeable ever since. As she expressed it, they "seemed to be afraid of falling to pieces." As they are being washed, and are turned over or raised or lowered, they clutch with their hands, spring, catch their breath, etc., precisely as if afraid of falling. This was very slight at first, but increases. The youngest, who is most nervous, shows it most. Both manifest this occasionally when dressed, but in a less degree. The younger shows the same feeling on being swung on the hands, and does not like it; while the elder enjoys the motion, and will often go to sleep that way. This fear of falling was not noticed when they were dressed for the first two or three weeks,—I doubt if it was shown, for I several times looked for it. It evidently grows on them.

The most remarkable thing that I have watched so far has been the development of the smile. A baby does not smile or do anything else for the first time. That is, nothing is clearly marked at first. The smile begins when the infant first begins to be conscious of outside things; attention gradually becomes closer, more fixed; the smile at this stage is the mere stare, vacant at first, but growing steadily more intelligent and wondering in its appearance. About the third week this begins to relax very slightly into the appearance of pleasure. At this point there comes first more and more of a glow on the face,—a beaming—then in a day or two a very slight relaxation of the muscles, increasing every day. Now—July 16-18 (sixth week), this is very noticeable in the elder,—his look of intelligence, of pleasure, of a dawning smile, is often very beautiful, but it is not as yet a smile. The younger is yet in the wondering, beaming, slightly pleasing stage; he shows his satisfaction by pushing out his eyes and pursing of his mouth as if to whistle. The look (at this stage) in both may be described as one of satisfaction—self-satisfaction—rather than of pleasure. The smile is just now incipient, just beginning, in the younger, and well-nigh developed, almost a smile, in the elder. But I am confident no one will ever know the exact day when the baby fairly and intelligently for the first time smiles.

(At a later date—Nov. 2, 1881) There are some other items which I was not prepared to insert at the former time of writing. For instance, my wife insisted from the first that the boys were strikingly 'marked' from the two pictures hanging in my library. The resemblance was indeed startling at first sight, but I was desirous of confirming it by more careful thought. The pictures were of Agassiz and Horace Mann, as unlike as could well be imagined. But there can be no question whatever that the elder boy had the features, expression, hair, short neck, etc., of Agassiz,—while the younger had the thin hair, sickly eyes, etc., of Mann's picture. The hair on Agassiz's head is parted on the right, and falls over to the left, giving the right a bald appearance. The babe has exactly this baldness, the hair growing an inch farther forward on the left side than on the right! The resemblance in the elder still continues (and may it ever, mentally and morally!) but the younger has mainly outgrown his resemblance to the other picture,—though my wife insists that the resemblance is only obscured, and will reappear when the baby plumpness passes away.

Another thing that has interested me has been the change in the head of the younger as indicated by the rough diagram enclosed. From being a little, weak, thin-headed baby, he has grown a strong, fat, round-headed boy.
But I weary you. I am so pressed with work that I have very little time to make observations, and still less to record them. But the subject is very interesting and full of instruction, though so much beyond our reach.

CASE D.

(DELFT, HOLLAND, 1877-81).

The following study is of special interest from the facts that the birthplace of the subject is quite remote, the food on which the child was nourished in infancy is unlike that usually provided for young children in America, and he has been from birth and is still under careful observation by competent parents. The father is a native of The Hague, and is a doctor of science and professor of chemistry. The mother was born in Alkmaar; she is proficient in several languages, in literature and in music. They now reside in Delft, Holland, where the boy was born in January, 1877. He weighed at birth 8 1/3 pounds, at 2½ years 33 pounds, at 4 years 44 pounds. During the first three weeks he slept 19 hours out of the 24. He laughed for the first time, but unconsciously, at the age of 3 weeks; and smiled wittingly in the 7th week. He followed a light with his eyes in the 6th week, held up his head in the 3d month, and cut two teeth in the 4th month. At the same age he held objects firmly in his right hand, and could also throw them with force. He had natural nourishment till 6 weeks old, then Liebig's food for infants was added till 3 months old, and after, that was the only food, when milk was given up. At present he likes all kinds of food, except butter, cheese and vinegar, but prefers bread, milk, and meat. At 6½ months he began to say ada, aida, jaia; at 9 months he said papa and mamma. At 21 months he could talk very well, and had an excellent memory; he could also sing correctly. At 20 months he could recite several little verses, and knew the letters of the alphabet, both large and small; he could also point out and name all the parts of the body. At 22 months he first spoke of "me" as a personality; he also knew the different colors. At 2½ years he could sing several songs with only the aid of the piano. His body is large and strong and his head well formed. It has always been difficult for him to pronounce the letter l and is still. He is now, at the age of 4 years, learning to play the piano. He has a very clear and sweet singing voice, and readily takes an octave either above or below any pitch given him.

A full diary of the development of this boy to the present time is at the disposal of the Committee should they desire it.

It is desirable to know more about the kinds of food given to very young children in Holland. Possibly the experience of another year will furnish further information on the subject. During the past summer a party of physicians staying in Rotterdam were greatly impressed with the clean, healthy and happy appearance of the children in the streets. Although a commercial town, and subject as other seaports are to a low moral influence, which is soon made manifest in the neglect and squalor of the young, nothing of the sort is to be seen in Rotterdam. The bright eyes and rosy cheeks of the infants tempted an inquiry of the parents as to their method of caring for their children. A daily bath, lightly boiled cold eggs morning and night, meat at noon, and all the bread and milk they desired in addition, was said to be the "custom" in Rotterdam. If this is correct, how far through Holland does it prevail? and how far is the same custom followed in other countries? A comparative study of some of the results of this manner of feeding the young, and of a milk and farinaceous diet would be of great value.
CASE E.

WATERVILLE, MAINE.

Another comparative case is submitted, that of two boys, both of whom were born in Connecticut, together with their parents.

No. 1, at 8 weeks, "tries to smile;" No. 2, at 8 weeks, "smiles beautifully." Both held up their heads at birth; this was remarked by several persons. No. 1 sat alone on the floor at 8 months, No. 2 at 5 ½ months. No. 1 stood alone at 1½ months; No. 2 stood alone in the middle of the floor at 10 months, and waved a wooden dumb bell. No. 1, at 1 year, could utter syllables, but no words. No. 2 could speak, at the same age, four words of his own, and imitate everything. At 15 months No. 1 could say a very few words; No. 2 everything, but verbs were given in the imperative. At 2 years old No. 1 talked exactly as No. 2 did at 18 months; while No. 2 was a perfect chatterbox. The weight of No. 2 at 2 years was 36 pounds, height 37 inches. The weight and height of No. 1 is not given when at the same age. It will be seen in the following remarks made by the mother of these children, that the influence of the power of imitation has attracted her particular attention.

June 3, 1881.—I have kept records, but have concerned myself more with the relative development than the absolute time of the appearance of any new phenomena, and the dates are not those of the first time an act was noticed, but such time as the habit was well formed. (I think I was afraid of a mother's partiality!) I have, therefore, put down only so much as I found absolutely stated, and have put the two children together, that you may see how much ahead (in time) No. 2 is of No. 1, in walking and talking. I am curious to know if that is not apt to be the case. I have noticed very many things in which the children imitate each other, and they never talk very much alike. No. 2 had No. 1 to imitate, while No. 1 had no child to copy after. I put their height in answer to "strong and healthy?" because growth in that direction seems to me as important as that in weight. My children are not at all precocious, but I am rather proud of their physical development,—striving for mens sana in corpore sano. I have particularly desired to investigate the lingual development (order of parts of speech, etc.), as an indication of character, and last winter went so far as to prepare a circular to forward to my Vassar friends, but was prevented by sickness and removal to this place. I shall, therefore, look with great eagerness for results which may come through this attempt of the Social Science Association, and shall be glad if you will send me anything you may publish pertaining to the subject. I should vote that an enquiry be made into the "occupation" of the mother as well as of the father. Ruffles and frills versus "cultivation of brains" for instance—will it not make a difference in the weight of the baby? I think it does. I don't feel satisfied with Dr. Preyer's suggestion that fathers should take up this matter. Scientific observation of the baby ought to be the mother's compensation for the tedious routine of her daily duties.

CASE F.

M. G. D., born in Rockingham County, Virginia, Feb. 25, 1881, is the daughter of parents of more than common attainments. The mother, who has displayed great skill and success in developing the faculties of her family of seven children, from the first week of their existence, pays much attention to the formation of their habits. She is much opposed to corporeal, or any other severe punishment. This infant was strong and large at birth, and at 4 months weighed 17½ pounds. She noticed the prick of a pin when 2 days old; when three weeks old
she smiled; at 10 weeks she held up her head, and reached out and took a play-
thing at 12 weeks. The mother writes to the Committee as follows:

This baby is now four months old, and is thought by all to be a re-
markably fine child. She is very large, sits up boldly when held on the arm, and
shows evident preference for some members of the family; fretting to be taken by
her father, who always carries her to the open air, and shows her little dogs and
other pets. When sleepy or hungry, she frets to be taken by her mother, though
at other times quite willing to be in the room with me, and carried by the nurse
and older children. She has one tooth, a very unusual thing I think, for I never
saw a child who had any teeth before six months, nor generally before eight, except
one of my other children, a little girl now seven years old, who also had two
teeth at four months. The baby resembles this little sister in physique, develop-
ment, features, and color of hair, but not of the eyes. The little girl mentioned
spoke nine words plainly at nine months of age. This we noticed at the time, as
her father was reading the life of a Lord High Chancellor of England, an ancestor
of the baby, and drew my attention to the fact that the mother of the distinguished
jurist had mentioned in letters to friends that at eight months he could pronounce
several words quite plainly. The fact of the relationship might have no psycho-
logical significance, being eight degrees removed, but that the same ancestor stands
in equal degree of relationship to both father and mother of this child's father,
and that there have been several marriages of cousins intervening.

Children vary greatly in the development of strength as well as sense.
One of my boys at the age of 16 months could not speak a word or walk a step, but
at his present age, 14 years and 1 week, he measures 5 feet 3 inches, and can walk
20 miles in a day.

I had supposed, from my experience with this boy, that girls developed
more rapidly than boys, but a little boy 2½ years old was a precocious child,
walking before he was a year old, and learning little hymns and songs when 16 months
old. He also shows great powers of observation, as noticed by us all one day when
he was about 26 months old. Several older members of the family were commenting
upon the improved appearance of a cow which we had bought a few months before, look-
ing at the time at an animal supposed to be the cow mentioned. Little Willie looked
out of the window an instant and exclaimed, "dat is not our tow, dat is Mrs. Paul's
tow in our yard,"--which proved to be the fact. Both cows were red with white
spots, and had crumpled horns. This little boy, when less than 2 years old, would
tell visitors accurately the pedigrees, for several removes, of the horses whose
pictures his father has hung up about the house. This faculty, as well as his acute
observation of animals, is a direct inheritance from his father and paternal grand-
father, both of whom had an impression that "blood is thicker than water," and were
enthusiasts in genealogies and pedigrees (English characteristics), as well as
"physical perfectionists."

One of the advantages ladies of the South can see in their adversity,
which certainly seems at times "like the toad, ugly and venomous," is, that being
deprived of the faithful "mammys" who guarded their own infancy, they are obliged
to keep their little ones more under their own care, and can see that the senses,
so early and keenly alive to impressions, shall have such care as will train and
lead them in the right direction. This is a subject in which I feel great interest,
for I think few mothers are aware how early children can be trained to habits of
neatness, truth, love, etc.
The Committee have received notes of many other cases, which will be presented hereafter; but the above examples will be sufficient to indicate the character and variety of the observations reported to the Department Committee, in response to Mrs. Talbot's Circular. It will be understood that the Committee disclaim all responsibility for the sentiments expressed by the writers of the various reports, which often indicate the influences under which the child is developed. The Register will be given on pages 51-52.
REPORT OF THE SECRETARY OF THE DEPARTMENT.

That portion of Mrs. Talbot's Report having reference to the subject of Infant Development was as follows:

The importance of making some systematic effort to record the development of infant life has occupied the thoughts of many people in various countries for a long period, and observations of isolated cases have been made, such as those by Mr. Alcott, on a group of children fifty years ago, in Pennsylvania; that by Taine, on the "Development of Language in a Young Child;" that by Charles Darwin, on the "Expression of the Emotions," and by Professor Feyer, on "Psychogenesis." In a more modest way, and from the impulse of strong parental feeling and curiosity, rather than from any deliberate intention of making a scientific investigation, mothers here and there, in this and other countries, have kept a diary of the physical and mental development of their children. It was suggested at the last General Meeting of this Association that in this field was a work which ought to be seriously undertaken, and that this Department should begin the difficult task. The value of the suggestion was confirmed by discussion; advice was sought from men of science and psychologists, gentlemen eminent in their specialties; correspondence was opened with distinguished Europeans, and one result may be seen in a simple and concise register which, in the form of circulars and by reprints in many different newspapers in this country and in England, has reached tens of thousands of readers, and brought to this Department a wide and interesting correspondence. It is too soon to announce results; too soon to formulate any theory of the physical and mental development of children, but we are already in possession of interesting facts. We have hundreds of mothers engaged; many of whom have been trained in our universities and colleges to make investigations with accuracy, and to weigh evidence with candor. With patience and perseverance we hope that this Department may soon make such progress in the collection of facts as to justify the attempt, that in the course of the next decade a continued series of observations, in large numbers, may reveal order in the variations of phenomena, and that some portion of the secret of the mental and physical development of infants may be discovered. The interesting communications from Mr. Darwin and Mr. Alcott here-with submitted, will illustrate what the Committee have aimed to do, which will also appear in detail from the Register itself appended to this report.

LETTER OF MR. DARWIN

DOWN, BECKENHAM, KENT
RAILWAY STATION, ORPINGTON, S. E. R.,
July 19, 1881.

Dear Madam:—In response to your wish, I have much pleasure in expressing the interest which I feel in your proposed investigation on the mental and bodily development of infants. Very little is at present accurately known on this subject, and I believe that isolated observations will add but little to our knowledge; whereas tabulated results from a very large number of observations, systematically made, would probably throw much light on the sequence and period of development of the several faculties.

This knowledge would probably give a foundation for some improvement in our education of young children, and would show us whether the same system ought to be followed in all cases.
I will venture to specify a few points of enquiry which, as it seems to me, possess some scientific interest. For instance, does the education of the parents influence the mental powers of their children at any age, either at a very early or somewhat more advanced stage? This could, perhaps, be learned by schoolmasters or mistresses, if a large number of children were first classed according to age and their mental attainments, and afterward in accordance with the education of their parents, as far as this could be discovered.

As observation is one of the earliest faculties developed in young children, and as this power would probably be exercised in an equal degree by the children of educated and uneducated persons, it seems not impossible that any transmitted effect from education could be displayed only at a somewhat advanced age. It would be desirable to test statistically in a similar manner the truth of the often-repeated statement that colored children at first learn as quickly as white children, but that they afterwards fall off in progress. If it could be proved that education acts not only on the individual, but by transmission on the race, this would be a great encouragement to all working on this all-important subject.

It is well known that children sometimes exhibit at a very early age strong special tastes, for which no cause can be assigned, although occasionally they may be accounted for by reversion to the taste or occupation of some progenitor; and it would be interesting to learn how far such early tastes are persistent and influence the future career of the individual. In some instances such tastes die away without apparently leaving any after effect; but it would be desirable to know how far this is commonly the case, as we should then know whether it were important to direct, as far as this is possible, the early tastes of our children. It may be more beneficial that a child should follow energetically some pursuit, of however trifling a nature, and thus acquire perseverance, than that he should be turned from it, because of no future advantage to him. I will mention one other small point of inquiry in relation to very young children, which may possibly prove important with respect to the origin of language; but it could be investigated only by persons possessing an accurate musical ear. Children, even before they can articulate, express some of their feelings and desires by noises uttered in different notes. For instance, they make an interrogative noise, and others of assent and dissent in different tones; and it would, I think, be worth while to ascertain whether there is any uniformity in different children in the pitch of their voices under various frames of mind.

I fear that this letter can be of no use to you, but it will serve to show my sympathy and good wishes in your researches.

I beg leave to remain, dear madam, yours faithfully,

CHARLES DARWIN.

TO MRS. EMILY TALBOT.
MR. ALCOTT’S LETTER.

CONCORD, Massachusetts, August 31, 1881.

Professor W. T. Harris, Orchard House, Concord:

Dear Sir: You ask me to give you some extracts from my notes on Infancy, taken during the earliest years of my children. The following are now submitted to your perusal. In copying them from my manuscripts I beg you will remember that (while they may gain in scientific clearness) they may lose some of the attractiveness you found in them, when read in connection with the reflections and inferences made at the time of writing. The psychology must remain for the present untouched, but, in copying for your use, I allowed myself to improve the phraseology, making an occasional change for the sake of greater clearness. I confine myself to notes taken during the first three months of my eldest child’s existence.

NOTES FROM THE DIARY.

March 16, 1831.—During the first days after birth she slept most of the time. As she gradually awoke and was exposed to the light, she opened her eyes as if intent on adjusting these for the purpose of seeing. Luminous objects particularly attracted her notice. While viewing these her hands moved instinctively, her arms were extended and drawn toward the mouth, which also appeared to be sensitive to the stimulus by frequent movements of the lips and tongue.

Tenth day after birth.—Her features are daily assuming a more sensitive and mobile expressiveness. Today her attention was arrested by the contrasted colors of her mother’s dress, and her attention was accompanied with a smile. She sleeps less, and is more observant (if I may say so) when awake.

Fifteenth day.—I notice an increased power of the sense of sight. A watch was held before her till she caught the sight of it, and followed its motion with her eyes while moved in various directions.

Twentieth day.—Her progress can be seen and marked daily, yet almost imperceptibly. Her existence is pleasurable, if the absence of crying, and her quiet moods, are trustworthy indications. If any sense brings the greater delight, it appears to be the sight; particularly when bright objects are placed at some distance they attract her notice. The morning hour, or the times of waking from her slumbers during the day, bring a freshness of perception.

Twenty-fifth day.—Her hands, when she is awake, are kept in constant motion, and these motions are becoming daily more energetic and direct, as being brought under the control of the will.

Thirtieth day.—When addressed, she turns towards the person speaking, as if eager to catch the tone of voice and distinguish the individuals; and the periods of attention are more prolonged and frequent. I am unable to discover that she distinguishes particulars from generals, as yet; or that recollection has dawned upon her, by which to discriminate one object from another. I imagine this belongs to a later stage of growth. Her progress has been chiefly indicated by longer-sustained efforts of attention to sounds, to form, and to motions, of which she appears to be already vaguely cognizant. Placed before a mirror today, she seemed for an instant to have caught the reflected image of herself and was lost in wonder at the vision, while this soon faded and itself became lost in the surrounding objects of the nursery. So the poet Shelley says:
The babe
In the dim nearness of its being feels
The appulses of these sublunary things,
And all is wonder to the unpracticed sense.

Fortieth day.—Since the last record her progress has been marked and significant; she listens to voices for some instants, and is attracted by the soft and suppressed tones; violent notes displease her. Her hours of wakefulness become longer daily, and she fixes her attention for longer periods. She takes much satisfaction in looking from the window at objects and movements outside. She has not yet been taken out of doors.

Sixtieth day.—A vase of flowers standing upon the mantelpiece attracted her notice, as she lay on her mother's lap, and she showed her pleasure at the sight by a smile. Her sleep seems mostly undisturbed and dreamless. Careful attention is paid to her dress, a disregard of this and of air and bathing, under a nurse, being avoided by the care which her mother gives.

Sixty-ninth day.—Lying in her mother's lap today, she caught a glimpse of her mother's finger ring, set with amethyst, at which her pleasure was great, keeping her attention on it for several minutes.

Seventy-seventh day.—While lying on the sofa she observed the varied colors of its cover; the color of her dress also, which she attempted to seize and detain in her hands. She is now almost able to hold her head erect without other support. Six days ago, the emotion of terror was excited on beholding a distorted face (May 24), and manifested by loud outcries; she seeking protection from the face in her mother's arms. It was long before she was restored to her accustomed tranquility—the vision perhaps reappeared in memory, haunted her fancy and brought tears to her eyes.

Seventy-eighth day.—On being carried into the yard she seemed lost in wonder at the varied pleasure. The open mouth, hands motionless, eyes expanded, betrayed the new sensations. She has now obtained sufficient command over her hands to grasp objects presented and hold them at will. This affords her an apparent satisfaction.

In closing, I transcribe a single reflection from the notes:

How wonderful is the progress of infancy; how involved in mystery! Repeated and successive acts of the senses precede the emergence of the indwelling mind into the light; and all emotions of the mind are unlike the movements we note in matter. We cannot affirm of this, it is, as we hesitate not to affirm of that. Now this addition is to be made to it, and now that; now it is about exhibiting such and such specific modifications—new elements are being intermingled; now observe how it behaves! But while we thus note the mind's mysterious operations as these move ceaselessly and noiselessly on, behold! ere we are aware, it has assumed new forms, unexpected changes occur, progress has been made, and the mind is.

A. BRONSON ALCOTT.
In the absence of Mrs. Talbot, Mr. Sanborn read at the Saratoga Meeting of 1881, the cases reported by Mrs. Talbot from her correspondence with fathers and mothers, previous to August last. Several of these cases, as presented, with remarks by Mrs. Talbot, are given below, and following them will be found the essays of M. Taine, Mr. Darwin and Mr. F. H. Champneys, who have made careful observations in France and England. Mrs. Talbot's cases, with one exception, are from the United States,—the exception being the child of a Dutch family at Delft.

CASE A.

In this case, the following observations and suggestions are of interest:

The father of these children is a teacher. Both parents were born in New England, but at present reside in Virginia. One of the children was born in North Carolina, the other in Virginia. The interest of this observation seems to have centered upon the comparative development of the two children at the same age. The weight of No. 1 at birth was seven pounds; of No. 2, eight and a quarter. At the age of six months, the weight of each child was the same. No. 1 was nursed till he was sixteen months old, and liked fresh figs especially. No. 1 smiled when one day old. No. 2, when two days old. No. 1 sat alone on the floor when five months old. No. 2 is still too young for a comparison to be made on this point. No. 1 says "Titten" (Kitten) at 14 months. No. 2 appeared sensible to sound three hours after birth, held up his head and followed a light with his eyes at three weeks, noticed its hand at five weeks, and held a plaything at six weeks.

The mother writes to Mrs. Talbot, as follows:

ALEXANDRIA, VA., July 11, 1881.

Dear Madam:—You asked for suggestions, one or two of which I now make:

a. It seems to me that a question or two in regard to the character of food, frequency of feeding, etc., might be valuable in this connection, as observation teaches me that the mental development is largely influenced by these.

b. My own children, brought up "by rule," and neither they nor their parents using any form of stimulating food, do not develop as early as their cousins, not under the same treatment, but are both of them exceedingly rugged. Where in the series, whether first, second, or only child, is another determinative influence. My second child gives promise of excelling his sister because of her attention, example, etc. (I make a very incomplete account of this baby of three months.)

c. The question as to the earliest exhibition of consciousness, seems to me a little ambiguous. Conscious of hunger, of the difference between arms and the bed, certainly,—yet I doubt that being the meaning of the question.

My first child, at five months, moving her finger over a plaything, heard the scratching sound thereby occasioned, stopped and listened, repeating till she had evidently clearly established the relation between the motion and the sound. This I have been accustomed to consider her first intelligent act, yet she had long before learned to distinguish between her mother and other attendants.
Medical works give six to ten hours as the earliest time at which hearing is possible, but my boy, born at 1.30, certainly heard, and nervously started at the sound of the cock crowing at 4.30.

This mother has raised questions of great importance, which may well occupy the attention of our observers for a long period. The statement (a) that mental development may be influenced by the character of the food given, is a broad one, and will admit of experiment. The recorded experience of different parents on this subject of when and how to feed a young child, would be of great service. In the statement (b), this observer concludes that children brought up by rule, that is, fed regularly as to time and quantity, are thereby retarded in their mental growth; a gain, however, in physical strength is intimated. While considering this question of how to feed children, it is desirable that observers should read Favy "On Food," or other authorities. Those who have already accepted the theory of "rule feeding," should recollect that an infant sometimes falls asleep before the needed amount of food is taken and will then fret for more before the appointed hour and thus, fatigued and faint, not be in a condition to easily digest food when it is next taken. The influence of undue prejudices must be guarded against in making observations, and because overfeeding sometimes induces illness care must be taken not to follow the other extreme and weaken a plump-looking child by the too long continued use of milk and farinaceous pap. The significance of the first appearance of the teeth should be noted and how long their legitimate use may with wisdom be delayed. Idiosyncrasies of taste and cravings will often be observed, and may well be regarded. Because this tender being is human, a moderate degree of change in its surroundings, and of variety in its food may be found essential to its physical and mental health. To pass safely through illnesses and to endure exercise and moderate excitements without fatigue will be the best test of these experiments, concerning food. Under (c), this observer expresses doubt as to what is meant by the "earliest exhibition of consciousness." To throw more light on the growth of self-consciousness in young children from the parents' point of view, is one of the objects of these studies. The subject has been examined and discussed by Prof. Preyer and Bernard Perez.* The children under consideration are peculiar from the fact that they were observed to smile the first days of their existence. The state of the subject under observation should be carefully considered in deciding upon a sign of development like that of the first smile. The facts connected with the delivery, if rapid and easy or slow and difficult, with development, whether perfect or imperfect, with the natural disposition, if it be merry or otherwise,—all these circumstances should be considered.

It will be noticed that these children were born in a more southern latitude than those of any other recorded cases which have been made public. It will be well to inquire whether this fact tends to hasten or retard development, or if any special result from such a circumstance is noticed by any observer.

CASE B.

A STUDY ON HEREDITARY TRAITS IN THE CASE OF C.W.S.

(Madison, Wisconsin, May 9, 1881)

It was the father's system to observe certain inherited traits or to seek for their exhibition. He did not come of a literary or voluble race. Neither the father nor mother of the child in question is fluent in speech. The father is rather reserved, silent, and is accused of sullenness, frequently, from distaste
of exercising his vocal functions. He dislikes talk in others even to the extent of being prejudiced against lectures, preaching, society, and even singing, except, in the latter case, singing that is scientific, so to speak. The mother does not talk much, though having no such prejudice against it in others,—preferring it, rather. It might be expected that the child would not show his intelligence mainly by fluency in articulating words. It is the father's opinion that speech comes natural, without being taught. He has observed in this child a gradual increase of power in the exercise of the vocal organs with the gaining of the teeth, and the strengthening of the various muscles of the mouth and chest. He is surprised indeed to notice how loud a voice a child can produce, even a very young child, compared with young animals of other species. It is to be observed also that the child seems to take up at times a habit of amusing itself by making various tones, or producing varying inflections of the voice—a sort of sound like preaching heard at a distance, or a ranting like a poor actor, then a hallooing, and again, as at a year old, of sounds alternately high and low at short intervals, somewhat as a person learning to sing practices octaves. Although deficient in vocal tastes, the father has a perhaps exceptional facility in acquiring arts of manual dexterity. He plays readily on half a dozen musical instruments, violin, violoncello, flute, zither, piano, and, as secondary to these, the organ, which requires a different touch not so easily acquired by many good musicians. As a musician he has had good instructors, and appreciates and performs music of Bach, Beethoven, Mendelssohn, Wagner, Berlioz, etc., and takes pleasure in the literature relating to this art. Naturally a musician cannot be wholly either right or left handed. Both hands and arms must be developed. Therefore it was with some curiosity that the child was observed, whether he would show marked preference for either hand. He does not. He shows remarkable impartiality of hand, but still there is an implied exercise of the right, as in taking up his playthings and throwing them away when playing or tired of them.

This might easily be inherited, for though a musical education would develop both hands, to paint and write and draw and otherwise use one hand would give that an added vigor which would have its influence. Then, too, in doing a certain thing, it is certainly a disadvantage to try to do it in different ways when its perfect doing is the result of repetition, and of acquiring habits relating to unconscious action rather than a discipline. It is the difference between art and mere tentative attempting.

It was the desire of the father to have the child show a preference for his own art, that of painting. Therefore he encouraged every implied turning towards this temperament. The wish of the child to be out of doors, his contented pleasure when there, his enjoyment in riding both in a baby wagon and in a buggy, seemed to imply that pleasure in nature which was desired. Tests were made to see if he distinguished tones, by putting him upon the piano and playing softly, even from earliest days. It was, however, very lately that he implied any recognition of musical tones, though he early gave notice of delicacy of hearing; yet seemed insensible to sounds like thunder, or cannons firing, for several months. Now he has learned to understand tones of voice, and if told not to do a thing, understands it as a prohibition, though he may not obey, having, of course, no fear of punishment from disobeying; therefore, he will sometimes scamper away when he sees any one coming to interrupt his destructive employments. Destructiveness seems prominently displayed. His pleasure is to tear things, paper, strings; a probably curable trait.

When the violoncello is played, he likes to get up along side, often leaning against it; not from love of music, but to be in the thick of the stir. He has to be watched lest he put things into the round holes, another of his traits.
That there are retrograde days, and days of progression, seems evident. Some days he will learn half a dozen new tricks, then he may go for a month without trying anything. When he gets some "new wrinkle," he is not satisfied unless he can be doing it all the time. When learning to bear his weight on his feet, he must be attempting it with wearisome pertinacity. I think such childish habits as squinting the eyes up, sticking the tongue out, putting the head one side or the other, or hiding it, playing "peep," or "pata cake," should be noticed as things easily to be dated. The pulling a handkerchief off his head and laughing heartily at it, occurred when but a few months old.

Considerations as to facility with his fingers and hands should be noticed; the power of picking up very small things, of putting a stick to a definite place, as through a hole, etc.

That a child does most of his actions by inherited instinct seems to me most plausible. I think, as comparing children with dogs, that, aside from the physical condition, the inherited taste is first shown. Little puppies of a retriever breed will begin to take things hither and thither in their mouths long before puppies of an uneducated ancestry, though there will be a difference in talent and exceptions. In children, besides the natural self-assertion of a young child, there will continually crop out a hint of an inherited facility, which he uses without being taught. Then there is association. Having always seen a dog about, he has no fear of a dog; wants to pull him and roll about with him, does not fear the bark of a dog; though a little startled, if sharp; but of horses he has fear, and a certain fascinated interest,—wants to know them, and yet is afraid.

I throw out these suggestions without much thought of their proving particularly valuable, but in a belief that your list of questions would, in a scientific sense, be made more valuable if extended to individual qualities, to determine exactly what is natural to all children, what peculiar to the exceptionally intelligent, and what is the result of heredity and association.

The child above described by his father was born April 14, 1860; his parents were born respectively in Ohio in 1840, and in Minnesota in 1851. He weighed 8½ pounds at birth, 14 at three months old, and 21 at a year old, when also he was 29½ inches in height, and was strong and healthy. He smiled at five weeks (?), exhibited consciousness at eleven weeks, noticed pain at two weeks, noticed the light before eight weeks; could creep at ten months, and stand alone at twelve months.  

CASE C.  

ASHBURNHAM, MASS., July 13, 1881.

The children are twin boys, born June 5, 1881; the elder weighed 7 pounds, the younger 6, at birth. The elder had a thick, round head, plenty of dark hair, was stupid and sleepy; the younger had a head narrow and high, long from front to back, with no hair; he was active, with eyes wide open and restless; his mouth open and moving for food from the first. The elder seemed considerably the most mature. He recognized the light of a window (evidently) at the age of 20 hours,—as he was looking at it he was turned round so as to bring the other side towards the window, and at once turned his head toward it. He recognized sound in the same way a day
or two. The younger recognized light and sound in the same way a day or two later,—in general he was a little later in all his developments.

June 15.—(Ten days old.) Both evidently noticed a piano played in another room,—stopped their incessant baby motions to listen, and put on the same listening look as adults do. This was repeated for a day or two, at times when the piano was played; but afterwards as the sound grew familiar they ceased to notice it.

June 25.—(Twenty days old.) Both lift their heads strongly, but cannot hold them up,—the elder, as usual, a day or two ahead. Between the third and fourth weeks they are beginning to fix their eyes on objects as distinct. The elder clearly looked at me as I talked to him, and also at a hand moved in front of him. Neither can yet follow an object, or knows which way to turn for a sound. They look at any one speaking, as yet, only occasionally and for a moment. They wink at a sudden sound, but not at a hand struck close to the eye. The nurse can wash through the eye at first, or throw water in it without their closing it. Tapping them all round the eye within half an inch of it, they do not move till the taps reach the nose near the inner angle, when they partially wink. They spring at a sudden sound, as of a door shutting.

July 2.—(Twenty-seven days.) The mother and babes moved to a new room down stairs. They looked round in wonder, stared evidently, in their new quarters. This soon ceased, in the main, so far as their new room was concerned, but is renewed when they are carried about.

July 4.—The bells and firing woke them rather early, and the younger soon grew nervous, so as to spring and throw up his hands at the explosion of a firecracker or other noise. This subsided as the morning clanger died away.

July 7-9.—(Fifth to sixth week.) They fix their eyes sharply on an object moving, or a person speaking, close in front of them. They begin to take evident pleasure in being talked to, drawing towards a smile occasionally when played with. They begin occasionally to turn their heads a little towards voices quite near,—that is, there seems to be the first dawn of an intelligent motion; mostly, however, mere aimless turning as yet. Their eyes, in their incessant rolling, usually move together, but not unfrequently they turn different ways, generally inwards; that is they look cross-eyed. This was not noticeable for the first three or four weeks, but evidently comes from the child's ill control of his muscles, now that he has gained the power, and attempts to look at objects definitely.

July 12-15.—The eldest has now no difficulty in looking at a person speaking to him, or at a near moving object, when directly in front of him. He evidently sees a person moving at a distance of 8 or 10 feet; the younger cannot do this yet. The elder now for a few days manifests pleasure in being talked or sung to, his face beaming, his arms striking out more vigorously, and himself often springing up towards the speaker. He looks at our faces now, with an intelligent look. The younger manifests all this in a less degree; that is, he traverses the same ground a few days later. The younger likes to be "saddled" best; the elder has more of the "go it alone." Four or five of us are tending them, off and on, during the day, so that neither as yet seems to know the mother or any one in particular. If there is any special recognition it is occasionally of the housemaid, who comes in and sits with them while the family are at meals,—it does not amount to recognition, but to manifest liking of her voice and manner. They plainly
know, as they lie on their mother's arm, her motion of preparing to nurse them, and change their hungry crying to an impatient brooding noise.

A singular thing was remarked by the nurse when she first undressed them (2d day), and has been noticeable ever since. As she expressed it, they "seemed to be afraid of falling to pieces." As they are being washed, and are turned over or raised or lowered, they clutch with their hands, spring, catch their breath, etc., precisely as if afraid of falling. This was very slight at first, but increases. The youngest, who is most nervous, shows it most. Both manifest this occasionally when dressed, but in a less degree. The younger shows the same feeling on being swung on the hands, and does not like it; while the elder enjoys the motion, and will often go to sleep that way. This fear of falling was not noticed when they were dressed for the first two or three weeks,—I doubt if it was shown, for I several times looked for it. It evidently grows on them.

The most remarkable thing that I have watched so far has been the development of the smile. A baby does not smile or do anything else for the first time. That is, nothing is clearly marked at first. The smile begins when the infant first begins to be conscious of outside things; attention gradually becomes closer, more fixed; the smile at this stage is the mere stare, vacant at first, but growing steadily more intelligent and wondering in its appearance. About the third week this begins to relax very slightly into the appearance of pleasure. At this point there comes first more and more of a glow on the face,—a beaming—then in a day or two a very slight relaxation of the muscles, increasing every day. Now—July 16-18 (sixth week), this is very noticeable in the elder,—his look of intelligence, of pleasure, of a dawning smile, is often very beautiful, but it is not as yet a smile. The younger is yet in the wondering, beaming, slightly pleasant stage; he shows his satisfaction by pushing out his eyes and pursing of his mouth as if to whistle. The look (at this stage) in both may be described as one of satisfaction—self-satisfaction—rather than of pleasure. The smile is just now incipient, just beginning, in the younger, and well-nigh developed, almost a smile, in the elder. But I am confident no one will ever know the exact day when the baby fairly and intelligently for the first time smiles.

(At a later date—Nov. 2, 1881) There are some other items which I was not prepared to insert at the former time of writing. For instance, my wife insisted from the first that the boys were strikingly "marked" from the two pictures hanging in my library. The resemblance was indeed startling at first sight, but I was desirous of confirming it by more careful thought. The pictures were of Agassiz and Horace Mann, as unlike as could well be imagined. But there can be no question whatever that the elder boy had the features, expression, hair, short neck, etc., of Agassiz,—while the younger had the thin hair, sickly eyes, etc., of Mann's picture. The hair on Agassiz's head is parted on the right, and falls over to the left, giving the right a bald appearance. The babe has exactly this baldness, the hair growing an inch farther forward on the left side than on the right! The resemblance in the elder still continues (and may it ever, mentally and morally!) but the younger has mainly outgrown his resemblance to the other picture,—though my wife insists that the resemblance is only obscured, and will reappear when the baby plumpness passes away.

Another thing that has interested me has been the change in the head of the younger as indicated by the rough diagram enclosed. From being a little, weak, thin-headed baby, he has grown a strong, fat, round-headed boy.
But I weary you. I am so pressed with work that I have very little
time to make observations, and still less to record them. But the subject is
very interesting and full of instruction, though so much beyond our reach.

CASE D.

(DELFT, HOLLAND, 1877-81).

The following study is of special interest from the facts that the
birthplace of the subject is quite remote, the food on which the child was
nourished in infancy is unlike that usually provided for young children in America,
and he has been from birth and is still under careful observation by competent
parents. The father is a native of The Hague, and is a doctor of science and
professor of chemistry. The mother was born in Alkmaar; she is proficient in
several languages, in literature and in music. They now reside in Delft,
Holland, where the boy was born in January, 1877. He weighed at birth 8 1/3
pounds, at 2 1/2 years 33 pounds, at 4 years 44 pounds. During the first three
weeks he slept 19 hours out of the 24. He laughed for the first time, but un-
consciously, at the age of 3 weeks; and smiled wittingly in the 7th week. He
followed a light with his eyes in the 6th week, held up his head in the 3d month,
and cut two teeth in the 4th month. At the same age he held objects firmly in
his right hand, and could also throw them with force. He had natural nourishment
till 6 weeks old, then Liebig's food for infants was added till 3 months old, and
after, that was the only food, when milk was given up. At present he likes all
kinds of food, except butter, cheese and vinegar, but prefers bread, milk, and
meat. At 6 1/2 months he began to say ada, aida, jaja; at 9 months he said papa and
mamma. At 21 months he could talk very well, and had an excellent memory; he
could also sing correctly. At 20 months he could recite several little verses,
and knew the letters of the alphabet, both large and small; he could also point
out and name all the parts of the body. At 22 months he first spoke of "me" as
a personality; he also knew the different colors. At 2 1/2 years he could sing
several songs with only the aid of the piano. His body is large and strong and
his head well formed. It has always been difficult for him to pronounce the
letter l and is still. He is now, at the age of 4 years, learning to play the
piano. He has a very clear and sweet singing voice, and readily takes an octave
either above or below any pitch given him.

A full diary of the development of this boy to the present time is at
the disposal of the Committee should they desire it.

It is desirable to know more about the kinds of food given to very
young children in Holland. Possibly the experience of another year will furnish
further information on the subject. During the past summer a party of physicians
staying in Rotterdam were greatly impressed with the clean, healthy and happy
appearance of the children in the streets. Although a commercial town, and
subject as other seaports are to a low moral influence, which is soon made
manifest in the neglect and squalor of the young, nothing of the sort is to be
seen in Rotterdam. The bright eyes and rosy cheeks of the infants tempted an
inquiry of the parents as to their method of caring for their children. A daily
bath, lightly boiled cold eggs morning and night, meat at noon, and all the bread
and milk they desired in addition, was said to be the "custom" in Rotterdam. If
this is correct, how far through Holland does it prevail? and how far is the same
custom followed in other countries? A comparative study of some of the results of
this manner of feeding the young, and of a milk and farinaceous diet would be of
great value.
CASE E.

WATERVILLE, MAINE.

Another comparative case is submitted, that of two boys, both of whom were born in Connecticut, together with their parents.

No. 1, at 8 weeks, "tries to smile;" No. 2, at 8 weeks, "smiles beautifully." Both held up their heads at birth; this was remarked by several persons. No. 1 sat alone on the floor at 8 months, No. 2 at 5½ months. No. 1 stood alone at 1½ months; No. 2 stood alone in the middle of the floor at 10 months, and waved a wooden dumb bell. No. 1, at 1 year, could utter syllables, but no words. No. 2 could speak, at the same age, four words of his own, and imitate everything. At 15 months No. 1 could say a very few words; No. 2 everything, but verbs were given in the imperative. At 2 years old No. 1 talked exactly as No. 2 did at 18 months; while No. 2 was a perfect chatterbox. The weight of No. 2 at 2 years was 36 pounds, height 37 inches. The weight and height of No. 1 is not given when at the same age. It will be seen in the following remarks made by the mother of these children, that the influence of the power of imitation has attracted her particular attention.

June 3, 1881.—I have kept records, but have concerned myself more with the relative development than the absolute time of the appearance of any new phenomena, and the dates are not those of the first time an act was noticed, but such time as the habit was well formed. (I think I was afraid of a mother's partiality!) I have, therefore, put down only so much as I found absolutely stated, and have put the two children together, that you may see how much ahead (in time) No. 2 is of No. 1, in walking and talking. I am curious to know if that is not apt to be the case. I have noticed very many things in which the children imitate each other, and they never talk very much alike. No. 2 had No. 1 to imitate, while No. 1 had no child to copy after. I put their height in answer to "strong and healthy?" because growth in that direction seems to me as important as that in weight. My children are not at all precocious, but I am rather proud of their physical development,—striving for mens sana in corpore sano. I have particularly desired to investigate the lingual development (order of parts of speech, etc.), as an indication of character, and last winter went so far as to prepare a circular to forward to my Vassar friends, but was prevented by sickness and removal to this place. I shall, therefore, look with great eagerness for results which may come through this attempt of the Social Science Association, and shall be glad if you will send me anything you may publish pertaining to the subject. I should vote that an enquiry be made into the "occupation" of the mother as well as of the father. Ruffles and frills versus "cultivation of brains" for instance—will it not make a difference in the weight of the baby? I think it does. I don't feel satisfied with Dr. Freyer's suggestion that fathers should take up this matter. Scientific observation of the baby ought to be the mother's compensation for the tedious routine of her daily duties.

CASE F.

M. G. D., born in Rockingham County, Virginia, Feb. 25, 1881, is the daughter of parents of more than common attainments. The mother, who has displayed great skill and success in developing the faculties of her family of seven children, from the first week of their existence, pays much attention to the formation of their habits. She is much opposed to corporeal, or any other severe punishment. This infant was strong and large at birth, and at 4 months weighed 17½ pounds. She noticed the prick of a pin when 2 days old; when three weeks old
she smiled; at 10 weeks she held up her head, and reached out and took a play-
thing at 12 weeks. The mother writes to the Committee as follows:

This baby is now four months old, and is thought by all to be a re-
markably fine child. She is very large, sits up boldly when held on the arm, and
shows evident preference for some members of the family; fretting to be taken by
her father, who always carries her to the open air, and shows her little dogs and
other pets. When sleepy or hungry, she frets to be taken by her mother, though
at other times quite willing to be in the room with me, and carried by the nurse
and older children. She has one tooth, a very unusual thing I think, for I never
saw a child who had any teeth before six months, nor generally before eight, except
one of my other children, a little girl now seven years old, who also had two
teeth at four months. The baby resembles this little sister in physique, develop-
ment, features, and color of hair, but not of the eyes. The little girl mentioned
spoke nine words plainly at nine months of age. This we noticed at the time, as
her father was reading the life of a Lord High Chancellor of England, an ancestor
of the baby, and drew my attention to the fact that the mother of the distinguished
jurist had mentioned in letters to friends that at eight months he could pronounce
several words quite plainly. The fact of the relationship might have no psycho-
logical significance, being eight degrees removed, but that the same ancestor stands
in equal degree of relationship to both father and mother of this child's father,
and that there have been several marriages of cousins intervening.

Children vary greatly in the development of strength as well as sense.
One of my boys at the age of 16 months could not speak a word or walk a step, but
at his present age, 14 years and 1 week, he measures 5 feet 8 inches, and can walk
20 miles in a day.

I had supposed, from my experience with this boy, that girls developed
more rapidly than boys, but a little boy 2½ years old was a precocious child,
walking before he was a year old, and learning little hymns and songs when 16 months
old. He also shows great powers of observation, as noticed by us all one day when
he was about 26 months old. Several older members of the family were commenting
upon the improved appearance of a cow which we had bought a few months before, look-
ing at the time at an animal supposed to be the cow mentioned. Little Willie looked
out of the window an instant and exclaimed, "Dat is not our tow, dat is Mrs. Paul's
tow in our yard,"--which proved to be the fact. Both cows were red with white
spots, and had crumpled horns. This little boy, when less than 2 years old, would
tell visitors accurately the pedigrees, for several removes, of the horses whose
pictures his father has hung up about the house. This faculty, as well as his acute
observation of animals, is a direct inheritance from his father and paternal grand-
father, both of whom had an impression that "blood is thicker than water," and were
enthusiasts in genealogies and pedigrees (English characteristics), as well as
"physical perfectionists."

One of the advantages ladies of the South can see in their adversity,
which certainly seems at times "like the toad, ugly and venomous," is, that being
deprived of the faithful "mammys" who guarded their own infancy, they are obliged
to keep their little ones more under their own care, and can see that the senses,
so early and keenly alive to impressions, shall have such care as will train and
lead them in the right direction. This is a subject in which I feel great interest,
for I think few mothers are aware how early children can be trained to habits of
neatness, truth, love, etc.
The Committee have received notes of many other cases, which will be presented hereafter; but the above examples will be sufficient to indicate the character and variety of the observations reported to the Department Committee, in response to Mrs. Talbot's Circular. It will be understood that the Committee disclaim all responsibility for the sentiments expressed by the writers of the various reports, which often indicate the influences under which the child is developed. The Register will be given on pages 51-52.
July 19, 1881

Dear Madame,

In response to your wish, I have much pleasure in replying to your
letter I feel in your proposed
view of the "mental health
development of infants." Very little
is at present accurately known in
this subject, but I believe that
isolated statements, with all but
little, to my knowledge, whereas the
result of studies from a very large number
of observers systematically made, and
prize these much light in the

From receipt of children at first
in surely as white children,
but the of the works for the
people. If it will be
prove the education, and the
my own individual, but I
from my in the race, this must
be a great improvement. I am

Working on the all-important subject.
sequence of points of development of the
strength faculties. This latitude and
flexibility give a foundation for real
spiritualism in an education of young
children, to win them as children
of the same system ought to be found
in all cases.

I wish to mention a few
points of inquiry which, as it
seems to me, justify some scientific
interest. For instance, it is
a question of parents influence
on moral forces of their children.
I will mention one small point in another in
relation to my young children, which
my pupils from abroad will respect to its origin of language;
but it cannot be investigated
by persons prolix in
accents musical ears. Children
are born to can articulate
their own feelings at
earlier years than the
knowledge of noises which
be made to give, because of
Their advantage to him.
I fear that this letter can be of no use to you, but in vain endeavours to show my sympathy with you in your sorrows.

I beg you to remain, dear Madam,

from faithfully,

Charles Darnley

To Emily Talbot.