

## **Addresses at the opening of the hospital, May 7, 1889.**

### **Contributors**

Johns Hopkins Hospital.

### **Publication/Creation**

Baltimore : [The Hospital?], 1889.

### **Persistent URL**

<https://wellcomecollection.org/works/rkhsd7qx>

### **License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

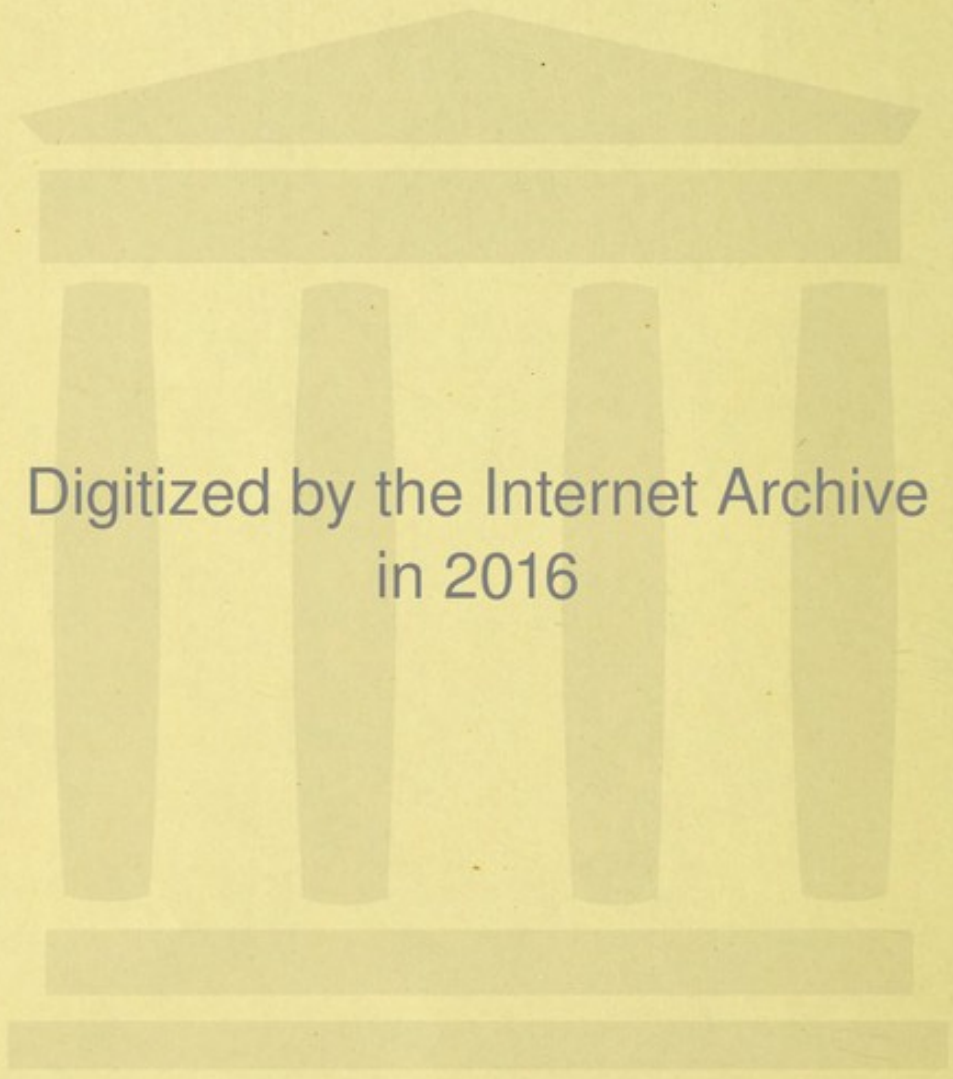




22101921630

Med  
K50539





Digitized by the Internet Archive  
in 2016

<https://archive.org/details/b2807483x>





Presented to the Library

JOHNS HOPKINS HOSPITAL

---



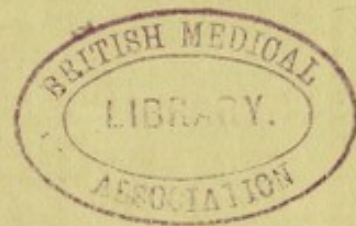
ADDRESSES

AT THE

OPENING OF THE HOSPITAL

MAY 7, 1889

---



BALTIMORE

1889

JOHN MURPHY & CO., PRINTERS,  
BALTIMORE.

14810477

|                               |           |
|-------------------------------|-----------|
| WELLCOME INSTITUTE<br>LIBRARY |           |
| Coll.                         | WELM Omec |
| Call                          |           |
| No.                           | WX        |
|                               |           |
|                               |           |
|                               |           |



## INTRODUCTION.

---

The Johns Hopkins Hospital of Baltimore was formally opened May 7, 1889.

At eleven o'clock in the morning, the Governor of the State, the Mayor and City Council, the Judiciary, and other Federal, State, and Municipal Officers, the Maryland delegation in Congress, the foreign Consuls, the Trustees of the Hospital, together with the officers of the Johns Hopkins University, a large number of physicians and surgeons from Baltimore, Washington, Philadelphia, and more distant places, including the Surgeons General of the Army, Navy, and Marine Hospital Service, and a company of ladies and gentlemen representing the hospitals and other philanthropic institutions of the country, assembled beneath the dome of the central or administration building.

A marble bust of Johns Hopkins was placed upon the platform and his portrait hung upon the wall. In the assembly his only surviving sister, his sister-in-law, and others of his near kindred were seated. Flowers and flags decorated the stage.

The company was received by a Committee consisting of the following gentlemen: Clayton C. Hall, Chairman, and Henry J. Bowdoin, Frederick J. Brown, Robert A. Dobbin, John M. Glenn, Dr. William F. Lockwood, Dr. Robert W. Johnson, Allan McLane, Jr., Joseph Packard, Jr., John C. Rose, Lawrason Riggs, Dr. N. Ryno Smith, Dr. Henry M. Thomas, Dr. William H. Welch, and Miles White, Jr.

Instrumental music was performed by an orchestra of which Mr. A. Itzel, Jr., was the leader.

The President of the Board of Trustees, Francis T. King, called the assembly to order and said :—

“Johns Hopkins, in his letter to his Trustees, said, ‘It is my special request that the influence of religion should be felt in and impressed upon the whole management of the Hospital; but I desire nevertheless that the administration of the charity shall be undisturbed by sectarian influence, discipline, or control.’ It is therefore most appropriate that we should begin the opening exercises of the Hospital by reverently waiting upon God, and asking his blessing upon this work and his abiding presence within these walls, which are to be devoted to the care of the sick and suffering.”

Prayer was then offered by Rev. Joseph T. Smith, D. D., of Baltimore.

Addresses were then delivered by Mr. Francis T. King, Dr. John S. Billings, and President Daniel C. Gilman.

At their conclusion, several letters and telegrams were presented from the officers of other institutions at home and abroad. The wards of the hospital were then visited. Luncheon was provided for persons from out of town.

---

# PRAYER

BY

REV. JOSEPH T. SMITH, D. D.

---

Most merciful and gracious God, our heavenly Father! We worship Thee, we praise Thee, we magnify Thy name as the God in whom we live and move and have our being, and from whose kind hand cometh down every good gift and every perfect gift which we enjoy. In all our ways we would acknowledge Thee, for Thou art God alone. Upon all the works of our hands we would seek Thy benediction, for Thy blessing alone can prosper. "Establish Thou the work of our hands upon us; yea, the work of our hands establish Thou it."

We adore Thee, O Lord, as the "Father of our spirits and the former of our bodies." These bodies, so fearfully and wonderfully made—the crown and glory of the whole material creation—Thy hands have fashioned; these living souls which inform them, bearing Thine own image, partners of Thine own immortality, whose earthly fellowship was to be with the higher world of spirits and their eternal home, the home of God and of angels,—are Thine own inbreathing. "Thou has made us a little lower than the angels, and hast crowned us with

glory and honor. Thou madest us to have dominion over the works of Thy hands. O Lord, our Lord, how excellent is Thy name in all the earth!"

We bless Thee as the God of life, and health, and happiness. Thou dost have "a desire to the work of Thy hand" and preservest amidst ten thousand perils the life Thou hast given. The mystic mechanism of life Thou hast so constructed that its healthful and harmonious movements are a perpetual joy, so that health is happiness.

Since death, the penalty of sin, must come, we bless Thee that Thou dost send so many heralds before to warn us of his coming, that we may set our hearts and houses in order. We bless Thee for all the alleviations Thou hast provided for pain and for all the remedies Thou hast provided to mitigate, where they cannot remove disease; for these healing waters compounded in Thine own hidden laboratory; for these healing plants which Thou has caused to grow in garden, and field, and forest; for these healing minerals which Thou hast stored away, with the silver and the gold in the mines, furnishing the hospital earth so abundantly with all needful supplies for its sick and impotent folk. We thank Thee for the pity Thou hast implanted in human hearts, and the skill Thou hast given to physicians to discover and administer the remedies Thou hast provided, so and ever increasingly lessening the sum of human sufferings.

And now that this great company is gathered here from their wide dispersion on this day of gladness, which crowns the cares and labors of so many years, our hearts rise up to Thee in thanksgiving and praise. As we look around on this Bethesda, this house of mercy, with its many apartments so admirably constructed, so abundantly furnished with all needful appliances, we thank Thee that Thou didst put into the heart of Thy servant, who so long went in and out among us, to provide so munificently for the building of this hospital. We thank Thee for the grace given to these, Thy servants, to whom, as he was about to go into the far country, he left his goods, to fulfil with such wisdom and fidelity their high trust.

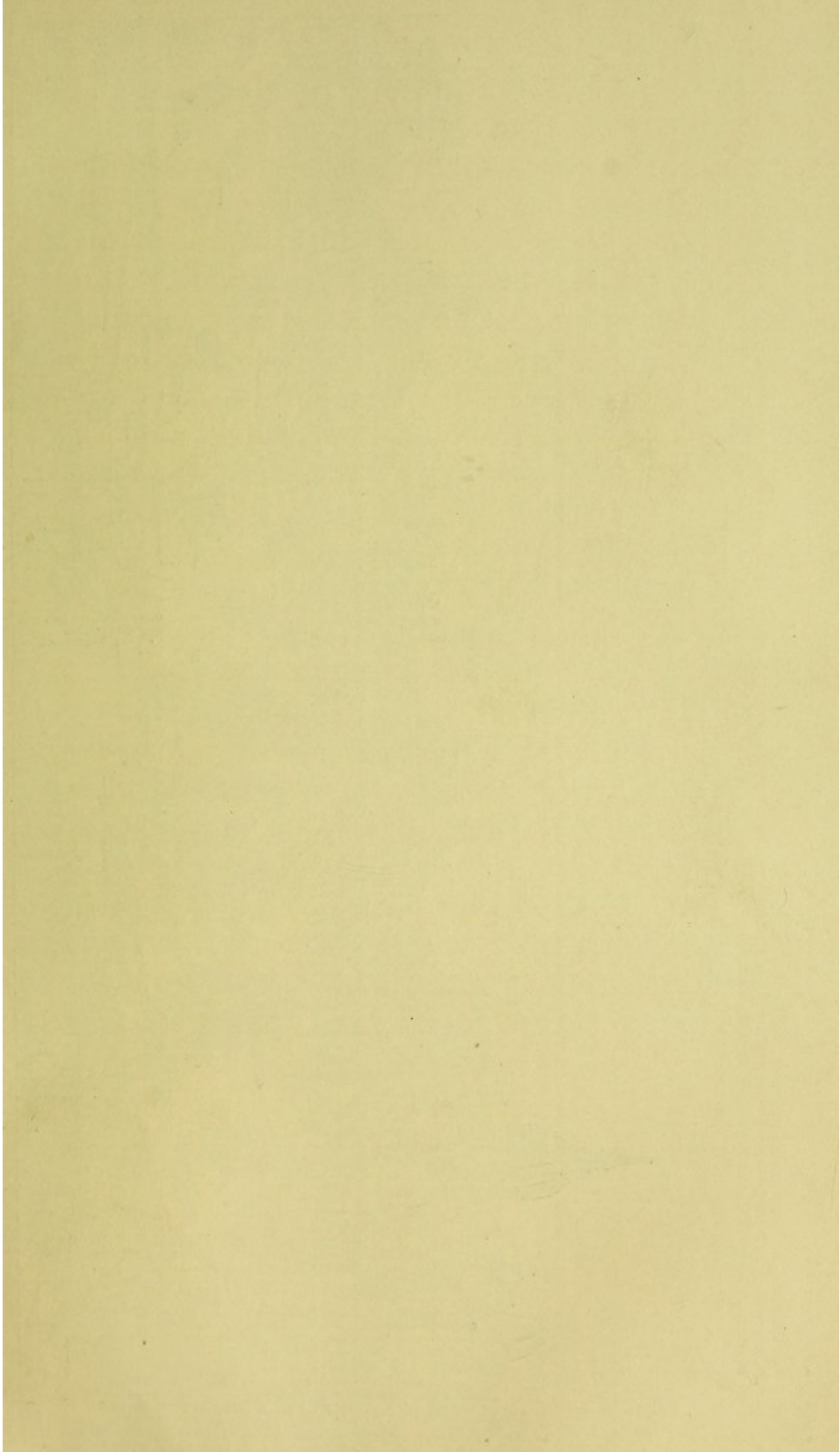
And now, as we are about to throw wide open the doors of this house of mercy, O, Thou Great Physician, who, whilst a denizen of earth, didst go about opening the eyes of the blind, unstopping the ears of the deaf, loosing the tongues of the dumb, healing the lunatic and the leper, and "healing all manner of sickness and all manner of disease;" who didst enter the Jerusalem Bethesda, and walk through its porches and minister to the sufferer, to whom there was none other to minister, we beseech Thee, enter into this house of mercy. Is it not Thy spirit of charity which has reared it? Is it not for an asylum and a home for those who are the objects of Thy tenderest care? Come in, Thou Divine Pres-

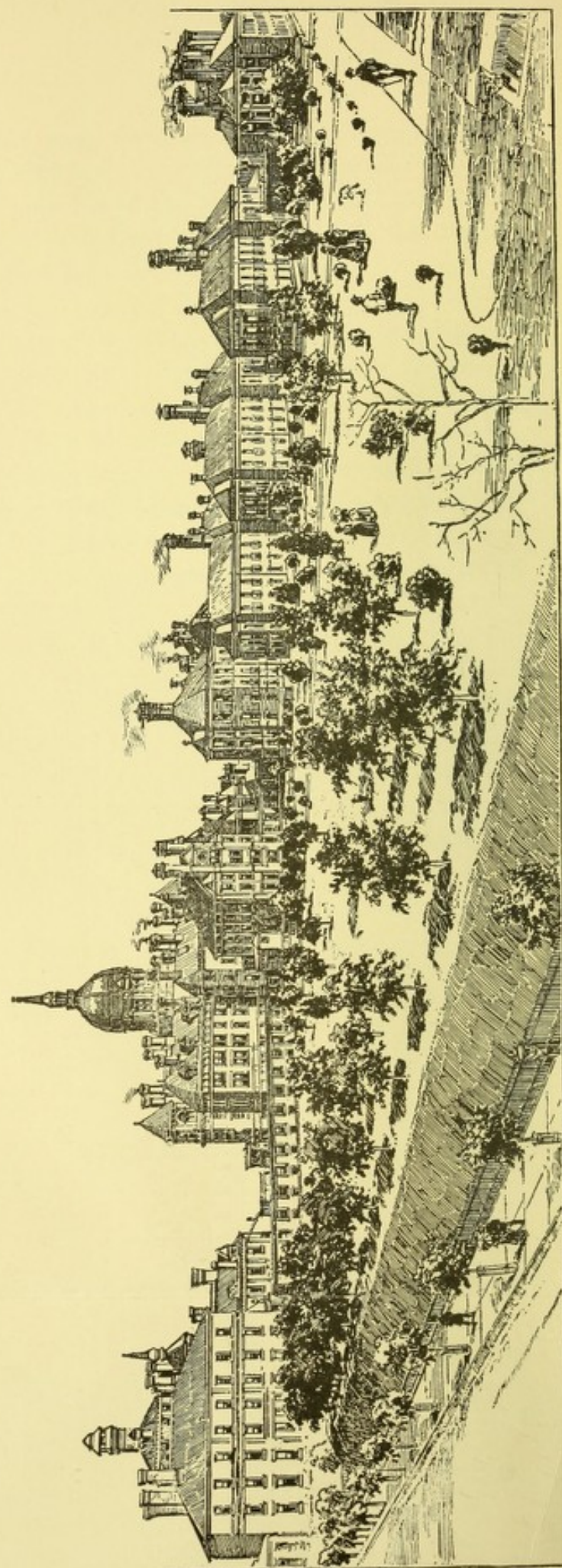
ence, and ever abide here, walking through these wards, standing by these bedsides, healing the deadly maladies of the soul, that so when the body must perish the spirit may ascend to that better land where the inhabitants never say, I am sick.

Bless and reward abundantly, for their labor of love, Thy servants who have given so many years of care and toil to the erection of these buildings. Bless the physicians and nurses who shall from time to time be employed here with wisdom and skill and tenderness. Bless all who shall in any way be employed in the service of this hospital, and let Thy choicest benedictions rest upon the sufferers who shall be gathered here from generation to generation.

And now that we have brought in this topmost stone, and the temple is complete, may the Divine Presence descend, and fill and glorify the house of His habitation.

Our Father who art in Heaven, hallowed be Thy name. Thy kingdom come, Thy will be done on earth as it is done in Heaven. Give us this day our daily bread, and forgive us our debts, as we forgive our debtors, and lead us not into temptation, but deliver us from evil; for thine is the kingdom and the power and the glory forever. *Amen.*





# OPENING ADDRESS

BY THE PRESIDENT,

FRANCIS T. KING.

---

It is my pleasant duty, in behalf of the Trustees of the Johns Hopkins Hospital, to offer you a cordial welcome, and to express our high appreciation of the interest in our work which is manifested by your presence here to-day.

It cannot be a matter of small or temporary importance that brings to this opening the chief executives of our State, and our City, so many of our distinguished men in all branches of the public service, so many well-known professional men from distant cities and countries, and so many of our own most prominent and public spirited citizens; and it gives us a renewed sense of our responsibilities and duties to find that we are to give an account of what we have done in the past and what we hope to do in the future to such an audience as we see before and around us.

It encourages us to hope and believe that the trust which has been confided to us is one not only of local but of national and even of international importance, and we have abundant evidence in the

many letters which have come to us from beyond the sea, that the opening of this hospital and the commencement of its philanthropic, educational and scientific work, is a matter which interests many men and women in Europe as well as in all parts of this country.

Johns Hopkins did not leave a hospital; what he did leave was a complicated piece of machinery in the form of various investments capable of evolving the power required to construct and maintain a hospital, for in this sense money is power. This machinery requires constant adjustment and looking after, and for this part of the work the Trustees are solely responsible.

When I tell you that these seventeen buildings have been constructed and furnished, and these fourteen and a half acres enclosed and beautified as you see them to-day, not only without taking a dollar from the principal placed in the hands of the Trustees, but with an actual increase of the endowment by judicious investments by the sum of \$113,000, I think it may be justly claimed that the Trustees have not failed in this part of their duty.

The speakers who are to follow me will tell you of the plans of the hospital, of the objects which have been kept in view in the preparation of the methods adopted to secure the best possible conditions for the treatment of the sick and wounded who come to it, of its relations to medical educa-

tion, to improvement of the science and art of medicine, and to the other great trust of Johns Hopkins with which it is so intimately connected, namely the university.

I will therefore devote my closing remarks to one or two personal reminiscences of the man to whom we owe the magnificent possibilities of his two great gifts.

I need not speak of the birth, education and business career of Johns Hopkins, with which most of you are familiar, as he was a native of this State.

What were the motives which led him to found his two great trusts, each with an endowment of nearly three millions and a half of dollars? Was it the act of a man of great wealth without children, who near the close of life wished to build a monument to his memory? No, not at all; it was done conscientiously, with all the deliberation, judgment and grasp of subjects which characterized him through life, first as a successful merchant, then as a banker.

I remember, many years ago, while spending an evening at Clifton, I heard Johns Hopkins say, in reply to a question put to him by an intimate friend of his own age, why he had never made a will, that he looked upon his wealth as a gift, for which he was accountable; that it grew and piled up from a small beginning, he hardly knew how; but he was sure it was given to him for a purpose, and he did

not believe he would die before he was given to see how he should dispose of his estate. "This wealth," he repeated, "is my stewardship."

Again, when his Trustees arranged to visit the hospitals of Philadelphia, New York, and Boston he was asked to accompany them; his reply was, "You surely do not want to parade me around the country. I would not for a moment think of going; it would be in very bad taste, to say the least of it. I have carefully chosen my Trustees and have committed every thing to them. I will furnish the means and they must build the Hospital."

Johns Hopkins purchased this site himself, which then consisted of the grounds of the Maryland Insane Asylum, two large lots and seventeen dwellings, in all fourteen and a half acres of ground in an improved portion of the city, closing two public streets, thus at once determining the magnitude and character of his Hospital.

Let Johns Hopkins again speak for himself in the words of his letter to his trustees, which show the wide scope of his interest in all conditions of mankind:

"You shall receive into the Hospital the indigent sick of this city and its environs without regard to sex, age or color, who may require surgical or medical treatment, and the poor of this City and State, of all races, who are stricken down by any casualty,

"You will also provide for patients who are able

to make compensation for the room and attention they may require, and thus be enabled to afford to strangers and to those of our own people who have no friends or relatives to care for them in sickness, and who are not objects of charity, the advantages of careful and skilful treatment.

“It will be your duty hereafter to provide for the erection upon other ground of suitable buildings for the reception, maintenance and education of orphan colored children, for which purpose I desire that you shall apply the yearly sum of twenty thousand dollars, or so much thereof as may be necessary.”

I wish to say on behalf of the Trustees a few words of recognition to all who have labored to bring these plans to their conclusion ; to the medical adviser whose invaluable services have covered more than ten years ; to the President of the University, who has so ably aided in organizing ; to the architects and builders, and to those who have had but occasional opportunities to serve us, but who have freely contributed their wisdom and experience whenever called upon, and especially to the physicians and surgeons, the managers of other hospitals, the superintendents of training schools for nurses, and to many others, at home and abroad, whose kind co-operation has been most serviceable.

Many of these friends are within the sound of my voice, others far away ; none are forgotten ; not

a few sent us letters which show their lively interest in this occasion.

As Johns Hopkins was brought up by godly parents—members of the Society of Friends—I should have been glad if we might have heard the voice of Whittier, the Quaker poet, but in the letter which I hold in my hand he pleads his age and illness as an excuse for his silence. He expresses his pleasure in seeing that the wise and benevolent design of the founder has been so well carried out, and his hope that the example of Johns Hopkins will not be lost upon his country.

To the words of his letter I will venture to add this verse which he wrote for another occasion, but which is equally appropriate to this.

“Not vainly the gift of its founder was made;  
Not prayerless the stones of its corner were laid;  
To Him be the glory forever!—we bear  
To the Lord of the harvest our wheat with the tare;  
What we lack in our work, may He find in our will,  
And winnow in mercy our good from the ill!”

---

THE PLANS AND PURPOSES OF  
THE JOHNS HOPKINS HOSPITAL,

BY

JOHN S. BILLINGS, M. D.,

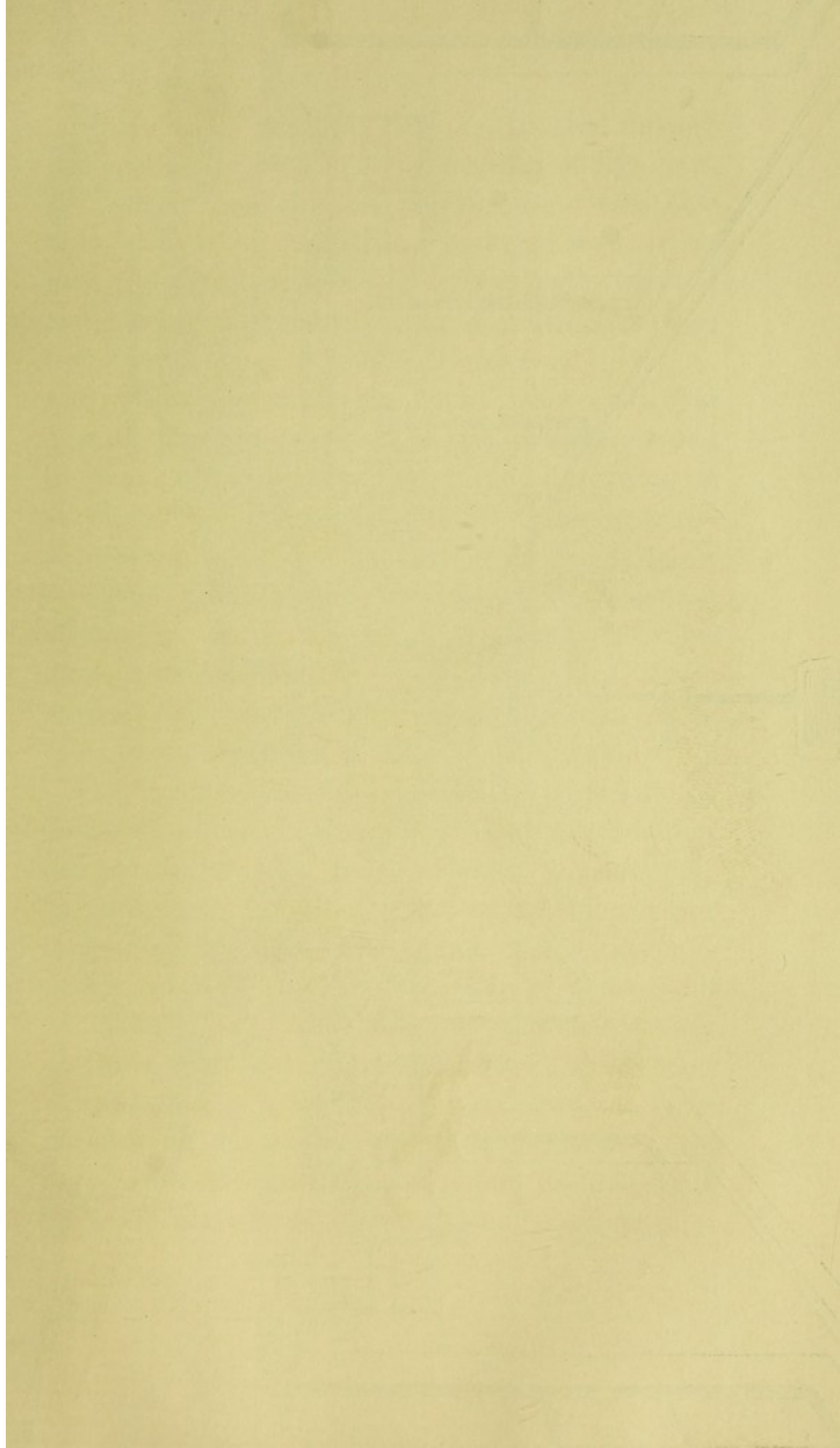
SURGEON, U. S. ARMY.

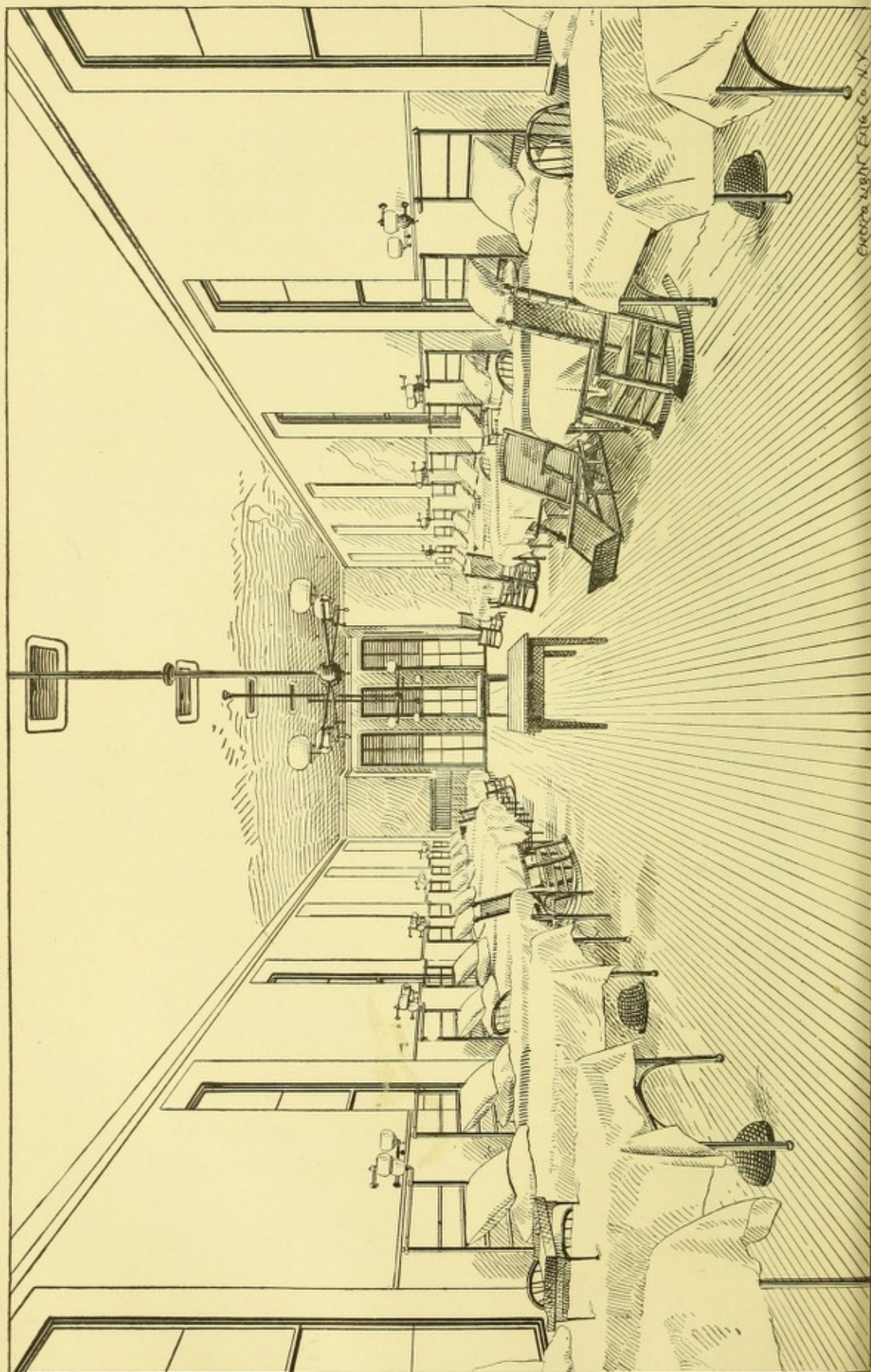
---

The third paragraph of the letter of instructions communicated by Johns Hopkins to the trustees whom he had chosen to carry out his plans for a hospital in the city of Baltimore, states that "it is my wish that the plan . . . shall provide for a hospital which shall, in structure and arrangement, compare favorably with any other institution of like character in this country or in Europe." What do you suppose the writer was thinking of when he penned that sentence? Had he in view any definite ideal, any mental picture of the institution which he proposed to establish, or was it merely an expression of a desire to give to his city the best thing that could be devised? I have read that letter many times, have heard much of the ideas, hopes, and wishes which were expressed in the numerous conversations which preceded its preparation, and it seems to me that the writer had an ideal, and not a mere vague desire—an

ideal which was no doubt somewhat misty, but which did not correspond to any existing hospital, and one which he did not attempt to define except in a few prominent points to which I shall presently refer. In most respects Johns Hopkins took the same course with his hospital which he did with his university, and deliberately refused to trammel with specific directions those whom he had chosen to carry out his plans; but this letter of instructions indicates, nevertheless, a conception of much more definite character, and one which had been the subject of more discussion and reflection than his scheme for a university. Whether this be so or not, I am at all events sure that his trustees have endeavored to comply with this letter of instructions, and to do so in the broadest and best sense of the words.

The beginning of the results we have before us to-day—results which even now are not confined to these particular aggregations of bricks and mortar, as will be presently explained, and the end of which will be, as we hope and believe, to make life happier for millions now living and yet unborn. Only those who took part in the early deliberations of those charged with this trust can fully realize the anxieties, the doubts, the manifold perplexities which at first attended their decisions and movements. Only one or two of them had any knowledge of hospital matters; most of them were





business men, bankers, lawyers, judges, railway managers, men who knew something of the management of men and money, but who were now brought face to face with a new problem—viz., how to build, organize, and manage a hospital so that it should compare favorably with any other hospital in this country or in Europe.

To “compare favorably with,” what does that mean? It is a peculiar phrase, which, coming from a shrewd business man and a member of the Society of Friends, signifies, I think, to excel, if possible; at all events, that is the safest interpretation. And it was not this or that hospital which was to be surpassed or equaled, but all other hospitals in this country or in Europe; Africa, Asia, and Australasia being put out of the question. It was a large contract.

The location was fixed—that had been done by Johns Hopkins; but they had to decide whether the structures to be erected should be temporary or permanent, of wood, brick, or marble, in one large building or in many, and many other like points, before even the preparation of plans could be commenced. They followed the instructions of the donor and got advice, of which a great abundance was available. They visited the large hospitals of our eastern cities, employed five men, supposed to be skilled in hospitals, each to write an essay giving his plans and suggestions, pub-

lished these essays in a book which had a wide circulation, and studied the criticisms and reviews to which this book gave rise.

Having duly considered the multifarious and widely divergent suggestions thus obtained, they finally selected one of the essay writers and asked him if he was satisfied with his own plans now that he had seen the others and the published criticisms upon them. He promptly said that he was not, whereupon they asked him to try again and do better. He set to work, aided by the architect of the board, and the result was a set of sketch plans which he took abroad and obtained much counsel and criticism on, examining at the same time the model hospitals of Europe. He was much less satisfied with the sketch plans when he came back than he was when he started, and again the building committee, the architect, and himself reviewed the whole matter, and finally settled on the general arrangement which you will see to-day. Many details remained to be worked out; even the façades had not yet been designed; but the general scheme was settled, and the rest was comparatively easy for the time being.

Let us now for a few moments consider the broad general principles which governed the trustees in the adoption of this plan. The first hospitals were established to give shelter and food to the sick poor, especially those who gathered in

cities. Gradually physicians found that they could learn much in these aggregations of suffering and that they afforded the means of teaching others; but this last use of them is only about two hundred years old. Gradually, also, it came to be known that the knowledge thus obtained in the care of the sick poor was of use in treating the diseases of the well-to-do; and finally, within the last twenty-five years or so, people are beginning to find out that when they are afflicted with certain forms of disease or injury they can be better treated in a properly appointed hospital than they can be in their own homes, no matter how costly or luxurious these may be. In the hospital they can have not only all the comforts of home, but more; not only skilled medical attendance and skilled nursing, but the use of many appliances and arrangements specially devised for the comfort and welfare of the sick which can hardly be found in any private house, and also freedom from noise and many petty annoyances, including in some cases too much sympathy and in others too little. This hospital, then, is to provide for the rich as well as for the poor; for those who can, and ought to, pay for the help given, as well as for those who can not.

A second cardinal principle to be observed in such a hospital as this is, that it shall do as little harm as possible. A hospital may do harm by its

foul air, by spreading contagious disease among its inmates, by neglect or carelessness of its nurses or attendants; and in years gone by hospitals have, no doubt, caused nearly as much sickness as they have relieved. This is now rarely the case, and in this hospital the arrangements for ventilation, isolation, and nursing are such as to entirely do away with this danger. There is another danger connected with free hospitals and dispensaries which is of quite a different kind and to which I can here only allude, namely, the danger of promoting negligence, shiftlessness, laziness, and vice by offering free relief from their consequences—the danger of pauperizing people. This is a danger connected with organization and management rather than with construction, and I can only say here that it has been foreseen and will be as far as possible guarded against.

The third principle to be kept in view in such a hospital as this is, that it should provide the means of giving medical instruction, for the sake of the sick in the institution as well as of those out of it. It is well known to those familiar with the subject that the sick in a hospital where medical instruction is given receive more constant, careful and thoughtful attention than do those in a hospital where no such instruction is given. The clinical teacher must do his best; keen eyes will note every error in diagnosis, every failure in results of treat-

ment. Moreover, the very act of teaching clarifies and crystallizes his own knowledge; in attempting to explain, the dark places become prominent and demand investigation, and hence it is that those cases which are lectured on receive the best treatment. I need say nothing here on the other side of the question, the value of properly trained physicians to the community and the necessity for hospital instruction in such training; Johns Hopkins understood all this and specially directed that "in all your arrangements in relation to this hospital you will bear constantly in mind that it is my wish and purpose that the institution shall ultimately form a part of the Medical School of the University."

Now there are medical schools and medical schools, and in obeying this direction of the donor the trustees had to consider what sort of a medical school this school of the university was likely to be. As the majority of the trustees were also trustees of the university, they knew well the principles which underlie the organization of that institution, and that the same principles would govern the organization of the medical department when that came to be taken in hand. One of these principles is the thorough teaching of that which is known, another is to increase that which is known, and to furnish the men and means for doing this. So also the hospital should not only teach the best methods

of caring for the sick now known, but aim to increase knowledge, and thus benefit the whole world by its diffusion. Another point which had to be kept in view was the direction of Mr. Hopkins that there should be established, "in connection with the hospital, a training school for female nurses, not only to care for the sick in the hospital, but to benefit the whole community by supplying it with a class of trained and experienced nurses."

It is also highly desirable that a hospital of this kind should have connected with it a well-appointed dispensary for the treatment of those who need medical aid, but not a bed, in the hospital. Through such a dispensary much good can be done at small cost, the selection of proper patients for the hospital is facilitated, the means of medical investigation and teaching are greatly extended, and the scope of the nursing system can be made to reach the poor and ignorant in their own homes.

The last point to which I shall refer, which was kept in view by the trustees in deciding upon the plans, was the general appearance of the buildings and grounds.

Mr. Hopkins gave no specific directions as to the buildings, but he directed that the grounds should be properly enclosed by iron railings, and so laid out and planted as to be a solace to the sick and an ornament to the city, and it was evident that the buildings should be of the same character so far

as their purpose would admit. It was therefore decided that, while no utility should be sacrificed for the sake of architectural ornament, and the main purpose which I have referred to should be fully worked out in the plans before any attention was paid to external appearance, it was fit and proper that the buildings should form an ornament to the city, and a suitable monument to the memory of the donor.

Bearing in mind, then, these main principles, to provide for the proper care of the sick, both rich and poor, to provide for the highest class of medical education, to increase and diffuse knowledge, to provide trained nurses for both hospital and city, to provide a dispensary, and to make the buildings and grounds ornamental and attractive, let us see how the problem has been thus far worked out.

I will begin with the arrangements for securing that article of prime necessity in a hospital, viz., pure air. Air supply and ventilation in this climate are inseparably connected with heating for a considerable portion of the year, for comfortable warmth must be secured, and on the means of doing this must largely depend the methods of ventilation and their success. The temperature of Baltimore may vary from  $103^{\circ}$  in the shade to  $17^{\circ}$  below zero F., hence its perfect hospital must be one which would answer for the tropics or for northern Russia. To secure this, double walls, with air spaces, were

given to the buildings, and a system of heating by the circulation of hot water was adopted for the wards. This system consists of central boilers, from which flow and return pipes extending beneath every building, connected with heating coils, of which there is one for every two beds in the ward above. The temperature in these coils can be exactly regulated to any temperature between  $150^{\circ}$  F. and the temperature of the external air by simply regulating the velocity of the flow of water by the valves attached to each coil, and thus it is quite possible to give one pair of beds a temperature of  $70^{\circ}$  and another pair in the same room, at a little distance, a temperature of  $60^{\circ}$  F., to suit the needs of different cases. The 80,000 gallons of water contained in this heating apparatus go round and round, carrying heat from the furnaces to the wards; but every building has its own independent means of ventilation, and it is not possible to go from one ward into another without going into the open air on the way, so that foul air, if any forms, cannot spread from one building to another. Nevertheless, the buildings are so connected by corridors and underground tunnels that in passing from one to another there is no exposure to rain or snow, and the least possible to cold air, while the food is not exposed at all. This is not the place to describe the ventilation. I will only call your attention to the fact that the temperature of the incoming air by any bed is easily

changed by turning a valve, while the quantity of air is not changed; to the arrangement for taking foul air from either the bottom or top of the ward, or from both, and to the fact that all this has been thoroughly tested during two winters and found to give the results hoped for.

One of the peculiarities of the wards is that all the service rooms are collected at the north end, leaving the south end free of obstruction and fully exposed to the sun, the end of the ward being a large bay window looking out on the central garden, and with a floor which can be warmed so that the patients, able to sit there, can be thoroughly comfortable. Another peculiarity of the sick wards is the arrangements for easy cleansing, and to prevent possible accumulations of dust in corners and crevices. Corners are to a great extent done away with, and easy curves given in their place; even at the junction of the floor and walls there is a curve instead of the usual right angle, and I advise you to look at it and see how it has been produced, for it ought to become fashionable, and take the place of the old mop-board in all well-constructed houses. So, also, the doors have not the usual moulding about the panels, giving recesses which it is almost impossible to clean.

One of the wards is especially arranged for cases which may be either contagious or offensive. In this building each patient is in a room by himself,

and all these rooms open into a corridor through which the wind is always blowing. There are many details about this isolating ward which are worth looking at, but which I have not time now to refer to, and I must omit details about the pay ward, the octagon ward, and the peculiar fittings and conveniences of the kitchen, laundry, apothecaries' building, etc., for the same reason.

Let us pass now to the second object of the hospital, the giving means for higher medical education, and see what has been done for that. In the first place, there is a large amphitheatre with appended rooms for the reception of accidents and emergencies of all kinds. In the second place, provision is made for at least thirty students to reside constantly in the hospital and devote themselves under proper guidance to the study of disease and the practical care of the sick. It is intended that these places shall be open only to those who have had a thorough previous training, and who have shown themselves to be fitted to undertake this important part of their studies. As a rule, not more than five per cent. of medical graduates have had any opportunities worth speaking of to study and treat diseases in the living man when they receive their diplomas. They have to get this experience on their first patients, and sometimes the experience is rather hard—for both doctor and patient. This hospital has pro-

vided for the class of the medical school in the last year of their studies good rooms with bath-rooms, a dining-room, and other conveniences, and here they can be taught the actual daily work of a physician, for which all their previous studies are only preparatory. Many of the arrangements of the hospital have been constructed with reference to this instruction; it is a great laboratory for teaching the practical applications of the laws of hygiene to heating, ventilation, house-drainage, and other sanitary matters. All pipes and traps are either exposed to view or can be seen by merely opening a door, and in the tunnel beneath the corridor you can study at your leisure the complicated and yet simple arrangement of pipes for gas, steam, water, sewage, etc., which are usually buried and remain a profound mystery to every one except the plumber, and often puzzle even him.

Closely connected with this subject of teaching is that of increasing our knowledge of the causes, symptoms, results, and treatment of disease; in fact one cannot be thoroughly and well done without the other, and hence many of the provisions for the one are also useful for the other. For example, to go back to our system of heating and ventilation, there are many points connected with it which are destined for experimental work, to compare steam with hot-water heating, to determine the velocity of water at different temperatures, to com-

pare ventilation by aspiration with that by propulsion, or by upward currents with those drawn downward.

One structure is very largely devoted to and fitted for experimental research, and that is the pathological laboratory, where the causes, processes, and results of disease are to be studied. Upon the results obtained in that laboratory may yet depend the saving of many lives, the relief of unspeakable agony, the warding off of pestilence from the city, and, to put it in a strictly business light, the value of real estate and the rate of taxation of this community. We are on the verge of great advances in our knowledge of the causes and methods of disease, and I feel sure that these will be only preliminary steps to far greater and better knowledge of how to prevent or to treat them than we now have. The probable length of life of the new-born infant to-day is not much more than half what it ought to be; the practical productive period of the life of our men and women is shortened and interrupted by unnecessary disease and suffering; but remember, if these things are to be amended, it is not merely by teaching old doctrines; we must open fresh windows and let in more light, so that we can see what these obstacles really are. It is in this work of discovery that it is hoped that this hospital will join hands with the university, and it is in this hope that some of the structures around you have been planned and provided.

A word now on the fourth object kept in view in this hospital, viz., the training school for nurses.

Some of you probably have had some personal experience of the difference between an educated, properly trained female nurse, and one of the old-fashioned sort, but if you have not, it would take much more time than I now have to describe it. I can only say that in many cases a competent trained nurse is as important to the success of treatment as a competent doctor, and that one of the greatest difficulties in treating well-to-do patients in their own homes in this city is the want of proper nurses. Affection and zeal may do much, but they cannot take the place of knowledge, and this kind of knowledge is not to be acquired in a day or in a month. It is a work best carried out by women, though not one woman in ten is fit for it, or should undertake it. But the woman who is fit for it, who has physical health and strength, sound sense, loving kindness, patience and tact, and who has been thoroughly taught the art of nursing the sick, with all its thousand details, has the power of doing good and increasing happiness to a degree which few others possess. In a properly conducted hospital ward she is a necessity, but her field of usefulness and helpfulness is by no means limited to that. She is needed outside the hospital, in the home of the rich to nurse and care for the sick; in the home

of the poor, to teach prevention as well as nursing. To gather here such women, to have them thoroughly instructed, to furnish them with the attractive and comfortable home which they deserve, and to send them where they are most needed, with provision for their return when the work is done, is the object of the training school of this hospital.

For this purpose the trustees have provided a large and handsome building, separated from the others, and exclusively appropriated to the female nurses, where each can have her own comfortable room, and where a common parlor, library, dining-room, bath-rooms, and, in short, the arrangements of a first-class hotel are provided for their use. Here also is a training-kitchen and a lecture-room to aid in the work of instruction. The intention is that when the nurse has finished her six or eight hours' tour of duty with the sick, she shall come quite away from the ward and all that pertains to it, and take her rest and recreation in a totally different atmosphere, and special effort has been made to have this home attractive and pleasant.

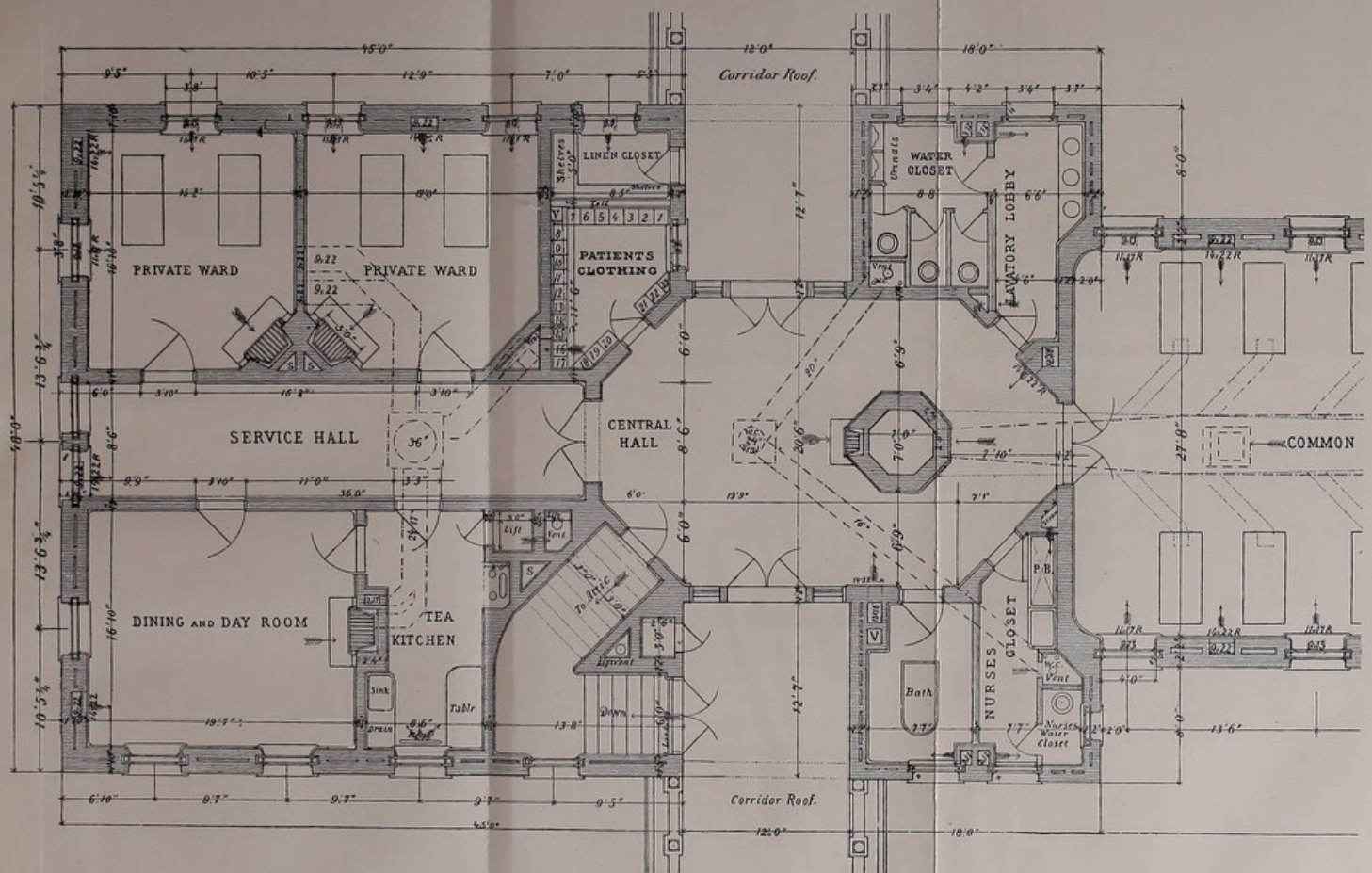
The fifth object which I mentioned as having been kept in view in the plan and construction of these buildings is the dispensary. This is a large building on the north front, consisting of a large central waiting-room, surrounded by a number of smaller rooms for the use of the physicians

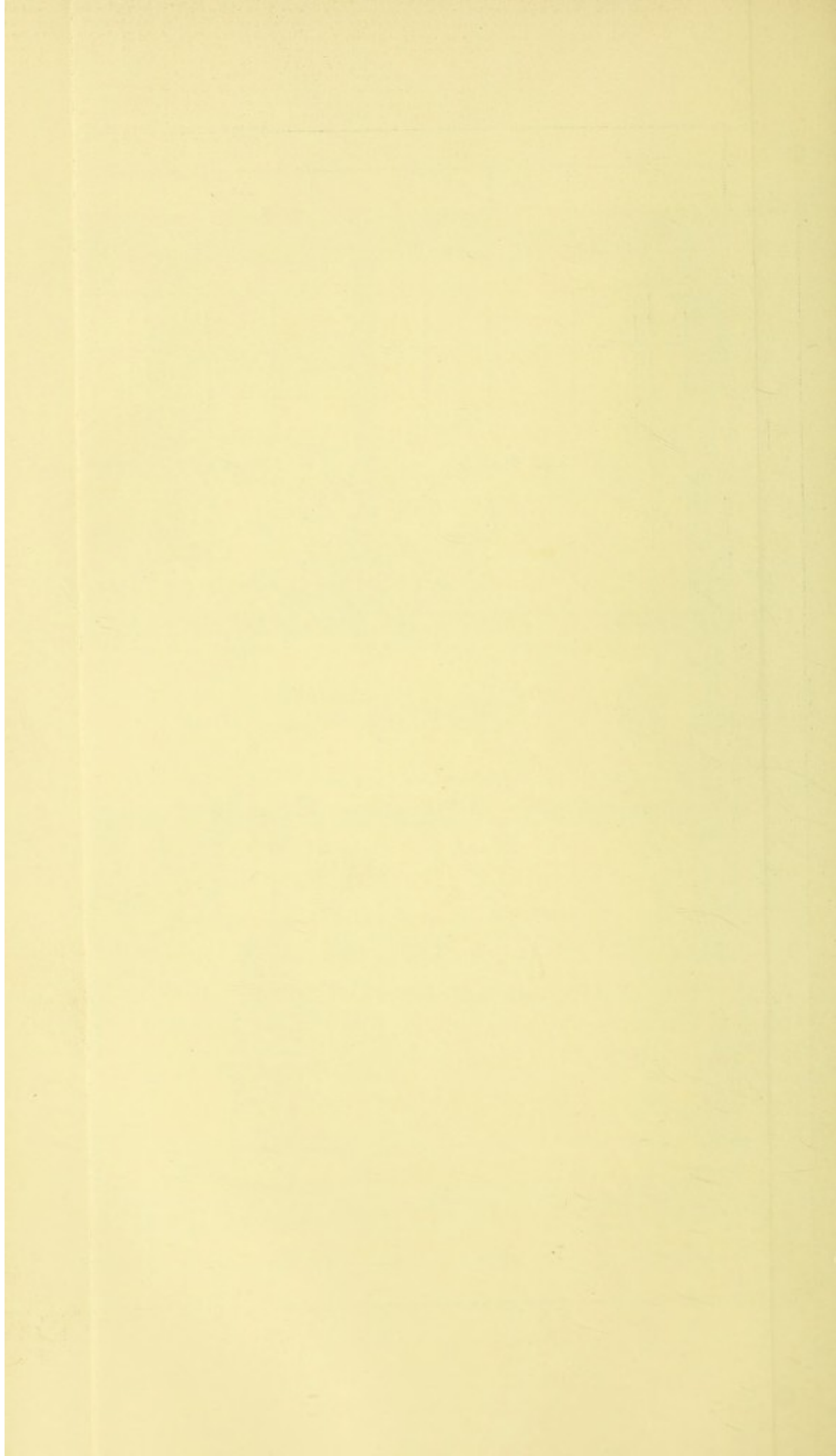
and surgeons who are to examine and prescribe for the patients, and having bath-rooms, and a small apothecaries' establishment for the issue of the medicines ordered. This building is connected with the amphitheatre by a short covered corridor, and is specially arranged with reference to teaching. It, as well as the amphitheatre, is heated by steam instead of hot water, partly because they are not in constant use, and a rapid means of warming is desired, partly for the purpose already referred to of giving the means of experimental comparison of the two systems. The means of supply of fresh warm air in these two buildings, and of removing the air made impure by exhalations, are somewhat peculiar, and merit examination.

With regard to the architectural design and external appearance of the buildings, and the laying out and ornamentation of the grounds, I can only say that you must see and judge for yourselves whether Mr. Hopkins's wish that they should be an ornament to the city has been successfully complied with. So far as external ornamentation is concerned, it is confined almost entirely to the large buildings on the west, or Broadway, front, which it was felt should harmonize in style of decoration. These central buildings, consisting of the administration, with the one pay ward on either side, are constructed of pressed brick with ornamentation of a dark blue, fine-grained, hard, and durable stone,

known as Cheat River stone, and of molded terracotta of the color of the brick. The external designs for these, as for all the other buildings, were furnished by Messrs. Cabot and Chandler, of Boston, and I think we have good reason to be well satisfied with the results they have produced. The grounds are laid out and planted in accordance with designs furnished by Mr. E. W. Bowditch, of Boston.

As regards construction, I do not hesitate to affirm that these are the best built buildings of their kind in the world. The material is the best, the most skilled and careful workmen were employed, and, above all, the work received the most careful, conscientious, and intelligent supervision as it progressed. For this supervision we are indebted to Mr. John Marshall in the beginning and to Mr. William H. Leeke for the remainder and conclusion of the work; and we are also indebted to the latter for many valuable suggestions as to modes and details of finish which are so important in a hospital. The details of the complicated and extended system of heating, ventilation, and plumbing were designed and the work executed by Messrs. Bartlett, Hayward & Co., of this city. I should like to go on and mention the names of a number of other persons who have done good work here, but want of time forbids. I will only say that these buildings embody the counsels and suggestions of many men and women in this country and





abroad, but among them all there is no one who, from the very beginning of the conception of the idea of this magnificent gift in the mind of Johns Hopkins down to this present moment, has had more to do with shaping the results, who has furnished more valuable suggestions, who is more thoroughly acquainted with all that has been done and why it has been done, who has worked so unselfishly, and who more deserves honor in this connection than the president of the board and chairman of the building committee through the whole progress of the work, Mr. Francis T. King.

Briefly and incompletely as I have sketched these salient points of the plans and purposes of this hospital, I hope I have, nevertheless, shown you that it is intended for other purposes besides providing shelter, food, and drugs for the sick. In saying this I have not the least wish to undervalue or disparage those institutions which do make this their main or only object. There is abundant need of their existence and work also; but this institution should not be judged by the rules which apply to them; it cannot be managed after their fashion; if it does not produce results different from theirs it is a failure and the expenditure upon it a mistake.

Thus far I have been speaking of the buildings only, and trying to give you some idea of the motives which led to their being as they are, and

what they are, and not otherwise. From the beginning, however, it has been recognized that the buildings and machinery are only means to an end, tools which must be handled by skilled workmen to produce the desired result; and throughout all these years of planning and building the question of organization and of the sort of men and women who were to use and work with these things has not been lost sight of. It is true that no attempts were made to select and engage individual members of the hospital staff until quite recently; but there was, nevertheless, a tolerably definite conception as to the ideas, mode of work, character, and wants of those who are to constitute this staff, and when the time came for selecting, it was made by this standard.

On the philanthropic, social, and religious aspects of this great trust I do not propose to touch, but I wish to say a very few words of the hopes and wishes of scientific men and physicians with regard to it. From the time of the first announcement of the Hopkins bequests to the present, these men, all over the world, have been keenly interested in the plans and methods adopted in carrying them out. Whenever and wherever the problems of higher medical education have been discussed within the last ten years, there has been speculation as to the probable course of the Johns Hopkins medical department, and the influence it

would have upon the standard. I may even say that some of this influence has been exerted in advance, has been discounted, as it were, for the plans of this hospital have stimulated changes in some of our best medical schools, and have been copied with more or less modification in some of our latest hospitals.

What is it, then, that the physicians want? Is it more physicians, more family practitioners, more surgeons, more specialists? Not at all. They know very well that there is no danger that the supply will not be equal to the demand; when they become overburdened with practice they do not at present find it difficult to obtain assistants; they have no fear lest the seventy or eighty medical schools of this country should fail to produce a sufficient number of medical practitioners to meet the wants of our increasing population; and they know also that the medical schools of Great Britain and Germany are sending to us quite as much of their product as we can conveniently dispose of. They hope that the Hopkins medical school and hospital will do two things. The first is, that it will demand of those who propose to become its students evidence that they have a sound basis of preliminary education before they commence, and that its standard in this respect shall be little below that of the requirements for granting the degree of bachelor of arts in the university. It

is hoped that the men thus selected will go through a carefully graded course of study, including actual work in properly fitted laboratories, and that after this they will be brought into contact with the sick, and thus obtain practical experience of the duties and responsibilities of the practitioner of medicine before they offer their services as such to the public.

So much our physicians desire of every medical school, for the sake of the honor and dignity of the profession, and for the good of the public, and they desire especially that this school shall form an example to which they can point as showing how medical education should be conducted, and what should be required of the candidate for the degree of doctor of medicine.

The very general interest in the combined Hopkins trusts felt by physicians and scientific men not only of this country but of the whole civilized world, is largely due to the belief that the relations which will here exist and be maintained between the university as a whole and its medical department, of which this hospital is to be an important part, will be close and intimate, so that the true university spirit will pervade, stimulate, and encourage the hospital work. In this country medical schools have either had no connection with universities properly so-called, or the connection has been slight and nominal, such as

depends upon the formal conferring of medical degrees by the university. Here, however, through the influence of the biological department, there are secured common interests and mutual influence, and it is hoped therefore, that the necessary details of technological instruction will be arranged in accordance with and subordinate to the broad principles of scientific culture upon which this university is organized.

It is because it is believed that this will be the case that there is a widespread hope and expectation that these combined institutions will endeavor to produce investigators as well as practitioners, to give to the world men who can not only sail by the old charts, but who can make new and better ones for the use of others. This can only be done where the professors and teachers are themselves seeking to increase knowledge, and doing this for the sake of the knowledge itself;—and hence it is supposed that from this hospital will issue papers and reports giving accounts of advances in, and of new methods of acquiring knowledge, obtained in its wards and laboratories, and that thus all scientific men and all physicians shall share in the benefits of the work actually done within these walls. But, however interesting and valuable this work may be in itself, it is of secondary importance to the future of science and medicine, and to the world at large, in comparison with the production of trained investigators,

full of enthusiasm, and imbued with the spirit of scientific research, who will spread the influence of such training far and wide. It is to young men thus fitted for the work that we look for the solution of some of the myriad problems which now confront the biologist and the physician.

Do I seem to ask too much? to be too sanguine as to what human thought, and study, and skill may accomplish? to forget that there is one event unto all; that the shadow of pain and death comes on the wise man as on the fool? I have two answers. As surely as our improved methods of prevention and treatment, based on the advances in knowledge of the last fifty years, have already extended the average duration of life in civilized countries nearly five years, have prolonged thousands of useful and productive lives, and have done away with the indescribable agonies of the pre-anæsthetic period, so surely we are on the verge of still greater advances, especially in the prevention of infectious and contagious disease, in the resources of surgery against deformities and morbid growths, and in the mitigation of suffering due to causes which cannot be wholly removed. But the second answer is more important, and it is this: It is our duty to try to increase and diffuse knowledge according to the means and opportunities which we have, and not to rest idle because we cannot certainly foresee that we shall reap where we have strewn. "It is not

incumbent on thee to finish the work, but thou must not therefore depart from it," says the Talmud, and "Of him to whom much is given much shall be required," says the Scripture.

To you, the officers of this institution, and to you, men and women of Baltimore, there is now given the opportunity of giving powerful aid in this increase and diffusion of knowledge of the laws of human life, disease, and death. Surely, those who are working in the wards and laboratories of the hospital and university will do their best; surely, also, the citizens of this great city, of a great nation, which at no distant day will take the lead in scientific work, will encourage, sustain and sympathize with these workers. I would have this hospital become famous, not for fame's sake, but because this will be evidence of the good work which has been done in it; but we must not be impatient. There are difficulties to be overcome, delays which must be submitted to. We cannot at once have the medical school which is essential to the plan which I have sketched; but there is plenty to do for the present, and I am certain that in time all these present obstacles to full development will be happily overcome.

Success in this, as in all other enterprises in this world, is to be obtained by unselfish work for the good of others, by wise counsel, by coöperation, and by persistent effort.

A hospital is a living organism, made up of many different parts, having different functions, but all these must be in due proportion and relation to each other, and to the environment, to produce the desired general results. The stream of life which runs through it is incessantly changing; patients and nurses and doctors come and go; to-day it has to deal with the results of an epidemic, to-morrow with those of an explosion or a fire; the reputation of its physicians or surgeons attracts those suffering from a particular form of disease, and as the one changes so do the others. Its work is never done; its equipment is never complete; it is always in need of new means of diagnosis, of new instruments and medicines; it is to try all things and hold fast to that which is good.

“Et quoniam variant morbi, variabimus artes.”

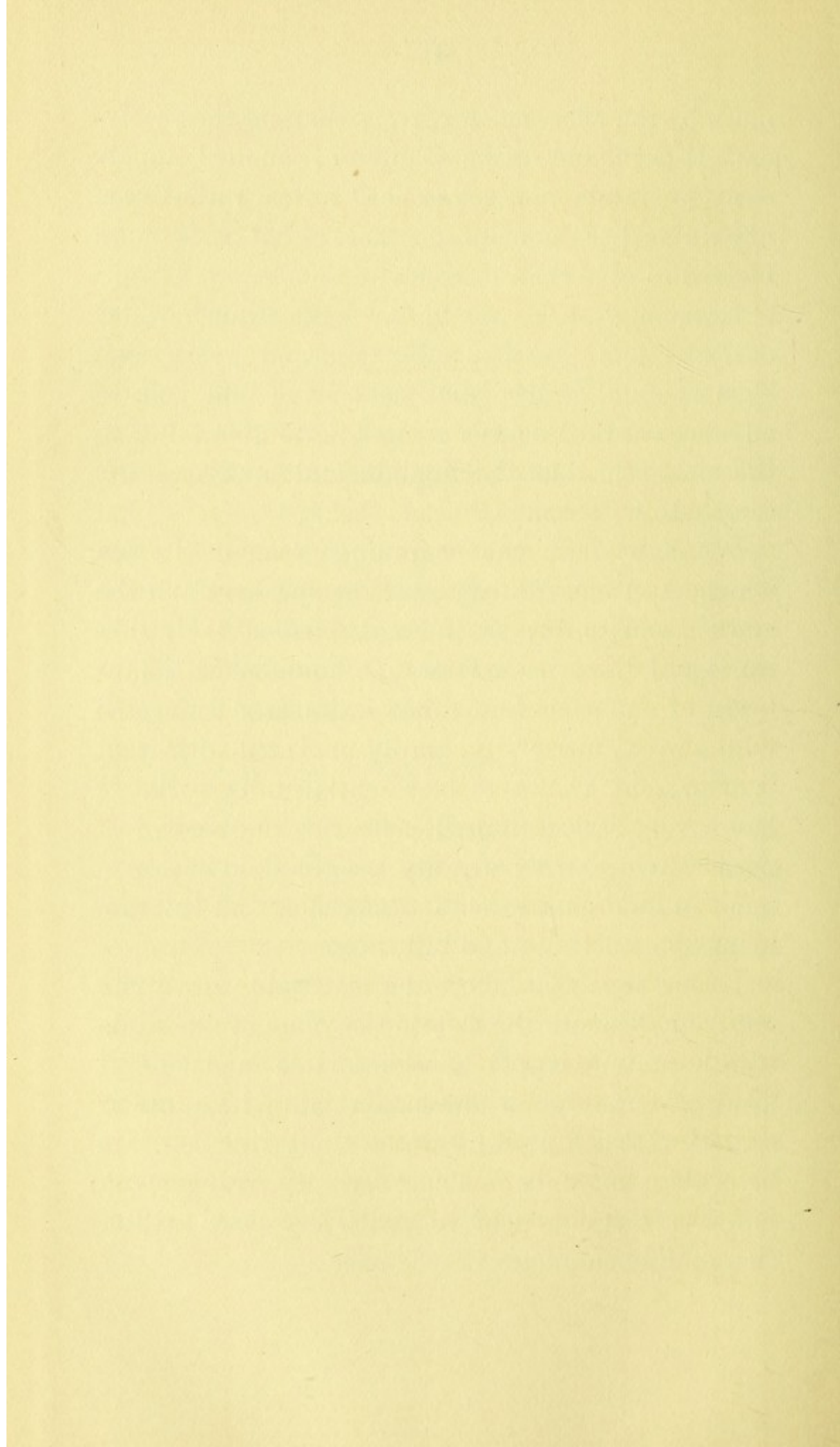
It has been said that “hospitals are in some sort the measure of the civilization of a people, but a hospital of this kind should be more than an index. It should be an active force in the community in which it is placed. When the mediæval priest established in each great city in France a Hôtel Dieu, a place for God’s hospitality, it was in the interests of charity as he understood it, including both the helping of the sick poor and the affording to those who were neither sick nor poor an opportunity and a stimulus to help their fellow-men; and doubtless the cause of humanity and religion was advanced

more by the effect on the givers than on the receivers. It is the old lesson so often expounded, apparently so simple and yet so hard to learn, that true happiness lies in helping others; that it is more blessed to give than to receive.

In some respects we to-day have a much wider outlook than the men of a thousand years ago. This hospital is designed, as I have told you, to advance medical science as well as to give relief to the sick poor, but the fundamental motive is the same—to help others.

We have here the beginning of an institution which shall endure long after the speakers and the audience of to-day shall have finished their life-work and have passed away. Founded in the interest of suffering humanity, intimately connected with a great university, amply provided with what is at present known to be essential to its work, we have every reason to predict for it a long and prosperous career, with steadily progressing improvement in its organization and methods, and enlargement of its activity and influence.

Let us hope that before the last sands have run out from beneath the feet of the years of the nineteenth century it will have become a model of its kind, and that upon the centennial of its anniversary it will be a hospital which shall still compare favorably, not only in structure and arrangement, but also in results achieved, with any other institution of like character in existence.



# CHARITY AND KNOWLEDGE,

BY

DANIEL C. GILMAN.

---

Thirteen years ago during the centennial celebrations of Independence Day, the University founded by Johns Hopkins began its work, and now, as we commemorate a completed century of constitutional life, the Hospital, gift of the same donor, throws open its doors. These buildings—on which thought, time and wealth have been freely spent—are now consecrated to the ministry of mercy and the prolongation of life. Science and charity, knowledge and pity, skill and sympathy are here installed in the service of mankind.

That large-minded citizen of Maryland, “who by noble gifts for the advancement of learning and the relief of suffering, has won the gratitude of his city and his country,” found two words adequate to his great ideas. “University” and “Hospital” were his chosen terms, and he linked them together by this significant phrase: “Bear constantly in mind that it is my wish and purpose that the hospital shall ultimately form a part of

the medical school of that university for which I have made ample provision by my will." How brief the phrase, how large the purpose! "Apples of gold in pictures of silver."

Like James Henry Roosevelt of New York, "a man upright in his aims, simple in his life and sublime in his benefaction,"\* whose hospital and dispensary give clinical instruction to the College of Physicians and Surgeons; like James Lenox of New York, whose munificence established a public library and gave birth to a hospital, Johns Hopkins, already honored as a patron of learning, will be henceforward remembered in the annals of charity and medicine. May we not almost say of him as Pindar said of Theron,

—and I will swear  
That city none,—tho' she unroll,  
A century past, her radiant scroll,—  
Hath brought a mortal man to light  
Whose hand with larger bounty flows.  
The blessings to that man we owe  
Say who shall hope to count.†

We may form an idea of what this hospital may become by the study of a like institution in London. About a century and a half before Johns Hopkins died, the days of Thomas Guy were

---

\* This phrase, (like that above, referring to Johns Hopkins,) is taken from a memorial tablet.

† Olympic II, Cary's version.

ended. Like our benefactor, he had lived unmarried to the age of eighty years, and from humble beginnings had acquired a fortune, with which he provided for the establishment of a hospital. The amount of his gift was more than a million of dollars (£238,292). The beneficent influences of Guy's hospital are now known in every part of the globe. It is doubtless safe to say that every one of us has shared, indirectly, in its benefits. The name of the great surgeon, Sir Astley Cooper, would alone give renown to the hospital to which he was attached,—Sir Astley Cooper, of whom it was said that from the period of his appointment to Guy's, until the moment of his latest breath, he was everything and all to the suffering and afflicted; his name was a host; but his presence brought confidence and comfort.\* Addison and Hodgkins, whose names are familiar to the historians of medicine, were physicians in that hospital. So was Richard Bright whose discoveries have been pronounced the most important contribution to medical science, made in the first half of the nineteenth century. The observations and studies made in Guy's Hospital since 1836 fill fifty volumes. Thousands of medical students have been trained within its walls; "their presence," says a competent observer, "has made the

---

\* Letter of Dr. Roots in the Memoir of Sir A. Cooper.

hospital." Hundreds of thousands of patients have received relief from the treatment there afforded. In a single year, five thousand in-door patients have been cared for and more than thirty thousand out-door patients have sought advice.

But we are planning for a future much longer than a century and a half; for a history as long as that of St. Bartholomew's or St. Thomas's, which now, after many centuries, are more useful than ever.

By a curious coincidence, as I had reached this point in the preparation of my address, I received a volume from Dr. Norman Moore, the Warden of St. Bartholomew's Hospital in London — bearing an inscription so welcome and so apposite that I will read it. "To the library of the newest of Hospitals this account of the progress of medicine in one of the most ancient is given by Norman Moore, with the earnest hope that the Johns Hopkins Hospital may flourish at least as long as the Royal Hospital of St. Bartholomew, in Smithfield, and prove no less useful to mankind,—on the opening day of the Johns Hopkins Hospital, 1889."

This little book is full of suggestions for us. First, as to the longevity of a hospital. "For more than seven hundred and fifty years the hospital has flourished upon its present site, and its Smithfield gateway, through which passed men of the generation whose fathers saw William the

Conqueror enter London, has ever since been open to the sick poor."

Then as to the progress of medical science. Here you may see "how the physician grew from a schoolman into a scientific observer, and how the surgeon, who appeared on the scene in livery and without learning, grew from a handicraftsman to be a man of science."

Next as to the training of illustrious men. Here you will find a record of the names and services of Caius, Bernard, Pott, Abernethy, Lawrence and Paget; you may learn that Dr. Thomas Young, the originator of the undulatory theory of light, was here a student, and you will come upon the story of one more famous than any person I have named, the discoverer of the circulation of the blood, the illustrious Harvey.\*

Time may efface the personality of our founder, as it has effaced the personality of Rahere, the founder of St. Bartholomew's, but the beneficence of Johns Hopkins will last for centuries; and gratitude will cherish the memory of his broad views, his great liberality, his wise and beneficent purposes.

The previous speakers have told us of the circumstances which led to the construction of these

---

\* Dr. Moore calls attention to the fact that it was a fund given by Dr. Caius to encourage the study of anatomy, which was the immediate means of leading Harvey to his discovery, and also to a remark in one of Harvey's lectures that it was a passage of Aristotle which first suggested to him the idea.

buildings and have described their purposes. Let me from a different point of view point out some of the benefits which are likely to proceed from this foundation. As I enter upon this theme, I am reminded that in 1789, John Howard, *facile princeps* among modern philanthropists, published in a quarto volume, just before his death, the observations he had made upon the Lazarettos of Europe. That was the beginning of reforms in prisons, asylums, refuges, and hospitals. To this work he prefixed these words of Cicero, a motto so appropriate that I might take it for a text: *Quid tam porro regium, tam liberale, tam munificum, quam opem ferre supplicibus, excitare adflictos, dare salutem, liberare periculis.\**

First, last and always, this hospital is to furnish relief to the sick and wounded. Make the best of it, introduce fresh air and sunshine, and provide the utmost comfort, secure wise physicians, engage the best trained nurses, decorate the walls with pictures, bring fruit and flowers and books and friends,—and even the comforting influences of Religion, yet you cannot conceal the direful consciousness, that this is the home of suffering.

From any other ill,  
(Except it be remorse) can men escape  
By work,—the healing of divinest balm

---

\* Cicero, *De Oratore*, I. 8.

To whomso hath the courage to begin :—  
 But sickness holds the sick man in a chain  
 No will can break or bend to earthly use.\*

The names that have been given to these abodes of the sick are suggestive. Hospitality and hospital alike suggest the bestowal of kindness to guests. The word Lazaretto, ultimately degraded, pointed at first to the restoration of life. *Misericordia, la Charité, la Pitié*, the Home of the Good Samaritan, the House of Mercy, bring to mind the kindly influences of love and care. St. John, St. Thomas, St. Bartholomew and St. Luke, above all other apostles, are favorite patronymics. Paracelsus died in the Hospital of St. Sebastian. Bethlehem, Bethany, Bethesda and Jerusalem recall the scenes where the Great Physician was present. The name of Christ has been given to many a foundation. In other places the hospital shares with the temple the name of Hôtel-Dieu or House of God.

By whatever name it may be called this is a convent where sickness is the abbess. The rule of sympathy for the suffering must govern every body with a strictness of discipline as rigid as the rule of the Benedictines or the Carthusians. Those who daily walk these cloisters will be the warders of life and health, however high their station or however humble their service; and casual visitors will not

---

\* Ugo Bassi's "Sermon in the Hospital," p. 13.

cross the threshold of the wards without pity for those who are disabled or without admiration and gratitude for those whose lives are spent in alleviating distress.

This hospital will not only meet the daily calls of humanity, it will stand ready to render extraordinary services in those emergencies which not even the progress of municipal reform and preventive medicine can entirely ward off. A fire, an explosion, an accident on the rails or on the sea-shore, the fall of a platform or of a building poorly constructed, may at any moment tax the utmost resources of a great establishment. True, we have no fear of leprosy and the plague; we have almost ceased to dread the coming of the cholera; yellow fever, we are hoping to thwart in its approaches to our northern seaports;—vaccination, which was spoken of by Sir James Simpson, “as the greatest thought ever broached in practical medicine” is a great prophylactic; but we are not certain that diphtheria and infectious fevers will not continue to be epidemic; nor can we always be sure that the boards of health in the city and State will succeed in protecting us, as well as they can, from the inroads of pestilence. Indeed it is well to inquire whether Baltimore is now fortified as it should be against the hostile incursions of epidemic disease. In addition to its other functions, this hospital will stand as a reserved force, a sort of

storehouse of energy, ready to serve the city if apprehension and disease spread their pall upon it.

Here let me say, in anticipation of the future, and in memory of the past, that in all the records of bravery on land and sea none are more noble than those of the medical profession. Free from all excitement, free from the hope of reward, free from any commands but those which are divine, they have in times of pestilence gone from bed to bed firm, fearless, faithful, carrying the offerings of cheer, comfort and relief, and often of restoration to health and vigor. For them, there is no repose in time of danger. The black wings of death hovering over a city do not deter them from duty; and often it may be said of them as Milton said of Abdiel, "faithful found among the faithless," faithful only they. Read the annals of modern pestilence, of cholera in New York, of fever and famine in Ireland, of yellow fever in the South. Every where it is the same story. The more direful the record, the more unflinching, the more self-forgetful, the more humane are the efforts of physicians.

While the offices of a hospital are bestowed without money and without price on those who are destitute,—those who are able to pay for suitable attendance, and for the domestic comforts to which they are accustomed, may discover that they can here be better treated than in many private houses. The conditions of quiet are more easily secured;

suitable diet at unusual hours can be commanded; medical attendance is within call at every moment of the day and night; manifold appliances for relief are more readily obtained. More and more frequently, travellers, students, all whose homes are in hotels and boarding houses, and even many who have good private homes, turn toward good hospitals when they see the need approaching for prolonged and special care. For the wants of such persons provision has been made in the wards here set apart for paying patients,—male and female.

This hospital would be a very narrow institution if it kept to itself its experience. It is the essence of quackery to deal in mysteries and nostrums; it is the glory of medicine that it owns no patents and conceals no discoveries. On the contrary, the best hospitals of the world consider it one of their first duties—second only to the care of their patients—to record the cases they have treated, the methods they have pursued, the results whether favorable or unfavorable which have followed. Scientific studies in pathology and practical medicine must be printed. Special papers, often requiring costly illustrations, must be published upon extraordinary cases, and upon new operations and modes of relief. It is thus that the science of Medicine is advanced. Where secrecy reigns, carelessness and ignorance delight to hide; skill loves the light.

It is impossible to have a hospital without its becoming a place for medical education. It is interesting to note that in the physician's oath, attributed to Hippocrates, the duty of imparting knowledge is explicitly enforced. Even the country doctor as he rides from village to village, takes in his gig an observing pupil, like the squire to a knight-errant. Every great surgeon is watched with the closest attention by the younger physicians who assist him. Every mother is the pupil of the physician whom she calls upon to attend her suffering child. So, of course, a hospital, having upon its staff men of rare qualifications who are in daily consultation with their most skilful brethren, is, from the necessities of the case, a place for instruction. How systematic that instruction will be depends on circumstances that at the moment need not be presented. All that need now be said is that hospitals the wide world over are the schools of medicine and surgery.

The training of nurses is another form of hospital activity, recently developed, never hence to be abandoned. To the sisterhoods of the Roman Catholic Church, to the Protestant Deaconesses of Kaiserswerth and the Bethanien at Berlin, and to many guilds in many lands, much credit is due for lessons they have taught the world, as to the importance of training nurses. Elizabeth Fry was one of the first Englishwomen to propose such in-

struction. Florence Nightingale, by her services in the Crimean war, and by her subsequent writings, has borne a noble part in this work. So, too, have our own country-women. The civil war, full of sad recollections, has some bright stories, and among them none more inspiring than the labors of brave, self-sacrificing and intelligent women in the Hospitals. Who that has read "What we did at Gettysburg," or "Hospital Days," has forgotten their lessons? As a direct result of the war, Nurses' Schools have grown up in every part of this land. Our Hospital has such a department soon to be opened, where nurses will be trained, not only for their merciful offices within these walls but for household engagements and for visiting among the poor.

A good hospital may readily become the rallying place of the medical profession who are resident in the City.

"Through mutual intercourse and mutual aid  
Great deeds are done and great discoveries made;  
The wise new wisdom on the wise bestow  
Whilst the lone thinker's thoughts come slight and slow."

One purpose of this central building is to afford opportunities for professional intercourse. Here are rooms set apart for the library that will presently be collected; here the medical journals will be taken in; here are the best appliances and

instruments for the treatment of patients; here are rooms for private consultations and for public conferences; here are laboratories for physiological and pathological determinations; and it will not surprise me to hear that within a very short time medical associations are here brought together "for mutual intercourse and mutual aid" at the invitation of Dr. Osler, the physician in chief, who this day assumes his great responsibility with the hearty welcome of Baltimoreans, and with the well-earned confidence of the profession throughout the entire land.

Reference must also be made to the lessons that this hospital has already given to the world, before a single patient has been received. The vast amount of thought bestowed upon these buildings, not only in their general arrangements,—but in thousands of details which promote their efficiency, has not failed to attract the attention of observers from every part of the globe. The letters which have been received during the last few days from the most distinguished surgeons and physicians abroad, and the presence of this large body of medical men from the distant cities of the United States are indications of this interest.

Finally, if this hospital becomes the seat of knowledge in all that pertains to the nature of disease, its treatment, its prevention and its cure,

it will of necessity be a constant guide to the people of the city and the State in which it is placed; it will promote the general health of the inhabitants. There is an altar in one of the churches of Messina, which bears an inscription to Aesculapius and Hygeia, the God of Medicine and the Goddess of Health; and their statues are found together on the façade of Guy's Hospital. May they always be associated in Baltimore.

Is all this outlay wise? I might answer an inquirer in the words which Wordsworth employed in speaking of King's Chapel, one of the most costly structures in the University of Cambridge.

“High heaven rejects the lore  
Of nicely calculated less or more,  
Tax not the royal saint with vain expense;  
With ill-matched aims, the architect who planned  
This glorious work of fine intelligence.”

For in this hospital, as in that church, are

“Thoughts whose very sweetness yieldeth proof  
That they were born for immortality.”

But I prefer to give a more specific and appropriate reply to those (if any such there be) who say, “I believe in everything that is practical, in whatever leads to the relief of suffering; but I am afraid of this talk about science. I would rather see a thousand beds for patients

than any provision for medical education." Such reflections are to be heard with respect, for they are natural to minds unacquainted with the intimate relations which subsist between the progress of medical knowledge and the progress of medical art. Nevertheless it is true that those who have most carefully studied the conditions by which human life is perpetuated, human sufferings lessened and human vigor increased, are well aware that every step forward in science leads to many forward steps in practice. May I endeavor to be a mediator between these two divergent views and bring a few illustrations from the Doctor's shop to the attention of those who are practically interested in hospitals, but who have paid no attention to the steps, so slow, so difficult, so uncertain at first but so sure at last, by which the Healing Art makes progress.

The late Dr. Austin Flint of New York in an address prepared near the close of his life, has pointed out with the wisdom of experience the probable "Future of Medicine." It would be presumptuous for me to attempt to do again what he has done so recently and so well. But on this day of promise, in view of all this expenditure, it is fitting that we should bring to mind some inspiring thoughts.

Let us first consider the benefits which have come to mankind from the opportunities which

hospitals have afforded for the observation of disease. There is no one among us more competent to speak upon this subject than the pathologist of this hospital, Dr. William H. Welch, who, years in advance of its opening, has been engaged as a professor of the university in the study of the nature and origin of disease. He has called my attention to these noteworthy points:

“Those who have contributed the most to the advancement of practical medicine and surgery have accumulated their experience largely in hospital service. By the constant attendance of skillful physicians and of well-trained nurses in hospitals, precise observations can be made and the phenomena of disease and the influence of treatment determined under the most favorable conditions.

“Our present knowledge of the natural history of disease, of its diagnosis, prognosis and treatment are based to a very large extent upon experience derived from hospitals. Text books, monographs and medical journals incorporate this experience and bring it to the knowledge of the medical profession. This is why intelligent physicians are always eager to secure the advantages of a hospital service.”

The benefits which medicine has received from purely scientific investigations may be shown by so many examples that it is difficult to make a selection among them. Dr. Welch mentions these:

“Upon the foundation laid by Helmholtz’s researches in physiological optics, and his discovery of the ophthalmoscope, the art and science of ophthalmology have developed into the most accurate department of clinical medicine.

“The investigations which received their impulse from Du-Bois Reymond in the difficult subject of animal electricity have rendered electricity available for diagnosis and treatment, and have advanced thereby our knowledge of nervous diseases.

“Of the many ways in which the work of the chemist has aided medicine may be cited, as one of its most recent contributions, the introduction into modern therapeutics of many useful remedies which are the products of synthetic chemistry. Doubtless this is a field which will be cultivated still further, and it would be rash to attempt to foretell what agents for the cure of disease and relief of suffering are still hidden in the chemist’s laboratory.

“By the discovery of the specific germs causing various infectious diseases, surgical practice has been revolutionized. It has become possible to prevent the infection of wounds from the exterior, and thus to guard against a host of traumatic infections which rendered dangerous and futile so many surgical operations. Preventive medicine has taken its place among the exact sciences.

“Accurate knowledge of the causes of disease now forms a sure basis for intelligent therapeutics and there is every reason to expect that the future will bring to light means to overcome the injurious agents which are now, for the first time, known.”

But there is another illustration so marvelous that it may almost be called miraculous. The relations of advancing knowledge to advancing charity are brilliantly displayed by the history of methods for the relief of pain.

To put a stop to suffering is an instinct of human nature, distinguishing man from animals. The most scientific men, and the most practical are agreed upon this, and have been so agreed for centuries. But Anaesthesia, most welcome of all the angels of mercy, came down from heaven. When the older surgeons in this assembly were students, opium and alcohol were the imperfect anaesthetics most usually employed. Their use was restricted and unsatisfactory if not dangerous. No one can tell what was suffered in places where gentle sleep now quiets apprehension and makes the patient unconscious of his state. To this alleviation, we are so wonted that we accept it as the air we breathe. But if you would learn how man secured this boon, how many efforts of scientific and of practical men were combined before the results were reached, recur to

the history of four modern agencies, nitrous oxide, ether, chloroform, and cocaine, which are like "the gentle dew from heaven, which blesseth him that gives and him that takes." It is a chapter more wonderful than any romance of the Arabian Nights.

Let any one present who is skeptical in respect to the usefulness of science to the healing art, keep this record in his mind. Let him reflect on the apprehensions that have been removed not only from the patient but from his attendant friends; let him see how much easier and therefore how much more certain the task of the surgeon has been made; and above all let him think of the hours of pain that have been absolutely annulled, and then let him divide the honors if he can, which belong to Science from those which belong to Philanthropy; let him balance half a century of scientific relief with the previous practice of many thousand years; then let him tell us which is better.

From the past let us turn to the future. All the signs of the times point to a new era in the history of mankind. All the sciences are leading up to a better understanding of the laws of life, to a true Anthropology, and the consequent improvement of the physical, mental and moral powers of man.

There are four or five directions toward which we may turn an expectant gaze, as in days gone by the merchants watched upon the house tops for the return of the ships they had sent out to distant ports.

Preventive medicine promises to do more and more for mankind. As the germs of many specific disorders have been discovered, so the means of their destruction have been found out. If legislation and civil administration keep up with science, if knowledge is controlled by virtue and followed by temperance, the community will be freed from many of the foes which in former generations have slain their tens of thousands.

From the chemical laboratory new remedies, as well as simpler forms of old remedies, are to be constantly looked for. The synthetical processes which now receive so much attention have lately made important contributions to the pharmacopeia. It would surprise any one whose attention has not been directed to this point to know how many claimants are awaiting judgment. Scores of substances, till lately unknown, as I have heard my colleague\* say, are awaiting the study of competent therapeutists. Nobody can foretell what will come from their new contributions to *materia medica*, but one who watches the processes of discovery must feel certain that secrets hid from the beginning are ere long to be revealed, and that many of the substances already discovered have properties of the most serviceable character.

---

\* Professor Remsen.

No one can say what will result from the attention that has been recently given to the study of psychical phenomena by the exact methods of science,—but the outlook is hopeful. If we are as far as ever from elucidating the mysterious inter-relationship of the mind and the body, progress has certainly been made in a knowledge of the laws by which they act upon each other. The knowledge that has been acquired in respect to the functions of the brain and nervous system has already led to the treatment of many disorders and the relief of many diseases which a short time ago were beyond the reach of remedy. We are not without hope that in the physiological and psychophysical laboratories already established here, important contributions will be made to science which will ultimately prove to be of value to medicine and to the conduct of the body in health and disease.

Medical appliances and surgical instruments are greatly to be improved. A surgeon who has just returned from Europe, after visiting in the interest of this hospital the most celebrated instrument makers, has informed me that the processes of manufacture even now are behind the devices and requirements of surgical science. The hands of the artisan have not kept up with the brains of the surgeon. It is not possible to buy ready made the instruments required by this hospital.

In the near future we are to look for progress in the applications of electricity and magnetism to the treatment of disease as well as to its diagnosis. Chemistry by its synthetic methods is producing new remedies, which experimental therapeutics proceeds to test, and pharmacy then appropriates. The laws of light, heat, electricity and magnetism are found in close relationship to the problems of relief and cure. The laws of temperature and climate have their services to render. Even the influence of barometrical pressure upon surgical operations begins to be noticed. The study of the nervous system is sure at no distant day, to make important contributions to the welfare of man. Psychology is waiting for the results. Experimental physiology is doing its part. Pathology, a term as old as Hippocrates, has become a new science within the last few years. The laws of descent have but just begun to assume a scientific form. Preventive medicine is almost a new conception. The morality of personal hygiene is a new department of ethics. Biology, after having met with the same critical reception with which anatomy, astronomy, geology and chronology were greeted, may yet be honored as leading to the highest and noblest conceptions of humanity; anthropology, and the knowledge of man in his relations to the universe in which he is placed, may sum up finite knowledge.

So all along the line, in the laboratories of the university and in the wards of the hospital, knowledge is contributing to the welfare of man. The days of the coming man may not always reach the full allotment to which Chevreul has just attained, but perhaps to die at seventy will be to die in youth, and to reach the age of eighty or ninety in health and vigor, will be the rule and not the exception. Nor is length of days our only hope. The disappearance of epidemics, fewer days of confinement in sickness, fewer "minor ailments," a decrease of infantile mortality, greater powers of resistance to the evils of certain occupations, and comparative immunity from many infirmities which are now common, artificial reinforcements and replacements of bodily defects, simpler and surer means of diagnosis, the detection of the nature, origin and history of specific affections,—and finally the assurance of euthanasia. These, as it seems to a layman, are reasonable expectations which the nineteenth century holds out to the twentieth. Can any outlay be too great if humanity is thus benefited?

To the attainment of these noble aims, "the relief of suffering and the advancement of knowledge," the foundations of Johns Hopkins are forever set apart. On the one hand stands the university, where education in the liberal arts and sciences is provided, and where research is liber-

ally encouraged; on the other hand stands the hospital where all that art and science can contribute to the relief of sickness and pain is bountifully provided. Is there anything wanting? Yes,—there is still a great want to be supplied, an arch to rest upon these pillars. An institute of Medicine and Surgery, a College of Physicians and Surgeons, a Medical School,—the office of which shall be to promote the training of young physicians, and the encouragement of medical science is imperatively needed. Is it too much to say that there is not such an opportunity on the face of the globe, for another Peabody or another Hopkins to benefit his fellow men?

The university needs all it has, and more, to carry on the non-professional courses to which its funds are appropriated. The hospital, with all its readiness to co-operate in the advancement of knowledge will, after all, remain as I have said before, and cannot say with too much emphasis,—the home of the sick, the feeble, the injured and the dying. It is the house of mercy, not the hall of philosophy. But in close alliance with both these foundations there is a place for a school of medicine, which may bear its founder's name, and may render services as significant and memorable as those of Salerno and Bologna, at the beginning of the modern era; as those of Leyden and Edinburgh where the earliest American physicians re-

ceived their education; or as those of Berlin and Vienna to which so many students of this decade resort.

This grateful city should no longer delay placing upon one of the squares near the monument of Washington, the figure of Johns Hopkins, with such designs as an artist, and an artist only, could devise, to typify the great ideas which underlie his gifts,—“the advancement of knowledge and the relief of suffering.” Then might some friend of this hospital place beneath this dome a copy of Thorwaldsen’s Christus Consolator, with the outstretched hands of mercy, to remind each passer-by—the physician and the nurse as they pursue their ministry of relief; the student as he begins his daily task; and the sufferer from injury or disease, that over all this institution rests the perpetual benediction of Christian charity, the constant spirit of “good will to man.” Upon one hill of Baltimore rises a temple, “whose guardian crest, the silent cross” is an emblem of the Christian faith; upon another, a lofty column reminds us of the patriots’ hope; upon a third, the Hotel-Dieu is placed,—the house of charity. Significant triad! “Here abideth Faith, Hope and Charity, but the greatest of these is Charity.”



