

**Report of the Committee appointed for the general improvement of the Chester Infirmary; together with Mr. William Cole, junior's report and plans, approved of by the Committee and submitted to the special general board, eighth September, 1824.**

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# REPORT

OF

## THE COMMITTEE

APPOINTED FOR THE

*General Improvement of the Chester Infirmary ;*

TOGETHER WITH

MR. WILLIAM COLE, JUNIOR'S

*Report & Plans,*

APPROVED OF BY THE COMMITTEE AND SUBMITTED TO THE

SPECIAL

GENERAL BOARD,

EIGHTH SEPTEMBER, 1824.

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Board Room, 15th June, 1824.

*At the Special General Meeting of the Governors of the Chester Infirmary, the following Resolutions were passed.*

THE REV. DR. TREVOR, IN THE CHAIR.

*That the projecting Building on the east side of the Infirmary having been viewed by experienced Builders, and declared to be in a dilapidated state, it is desirable that the same be taken down, and that in the situation an additional Building be erected, capable of receiving new Warm Baths, on the most approved construction; and also, of accommodating an additional number of In-patients; and that a new Dead Room also be built; that the Plan now produced, designed by Mr. W. Cole, jun. from the instruction of Mr. Harrison, be adopted, and that the following Gentlemen be requested to carry the same into effect, by public contract, according to specification, viz. :—*

*W. M. Thackeray, M. D.  
J. M. B. Pigot, M. D.  
Ll. Jones, M. D.  
C. Whittell, M. D.  
G. Rowlands, Esq.  
S. N. Bennett, Esq.  
T. Bagnall, Esq.*

*Alderman Francis.  
Rev. P. W. Hamilton.  
W. H. Elliott, Esq.  
John Fletcher, Esq.  
G. Cumming, M. D.  
Mr. T. Whittell.  
Mr. T. Lunt.  
Mr. J. Swanwick.*

*Three of whom be competent to act, and who are hereby empowered to consult any experienced Artists they may think requisite, so as to fit up the proposed Baths on the most scientific plan; that a sum not exceeding £600. is hereby granted to the Committee aforesaid, for the above purposes, but no money shall be paid at the Bank, unless by an order from three or more of the Committee, who are to meet immediately on the termination of the Special Board, and on every Monday, at twelve o'clock, until the improvements be complete, when the accounts thereof, with the Receipts and Payments, are to be laid before the Weekly Board, for the inspection of the public; but should the Committee think it advisable to diverge in any particular from the above Plan, they are hereby empowered to do so, provided, they do not exceed the sum of 600l.*

*At the Weekly Board, 6th July, 1824.*

*Resolved,—That the necessity of enlarging the plan and improving the general economy of this Institution, being demonstrated by the Vote of 600l. by the late Special General Meeting, held on the 15th of June last, for pulling down a part of the present Building for the convenience of erecting Convalescent Wards, Baths, &c. &c. it is deemed expedient and becoming on the part of this Board to procure, if possible, further information on this highly important subject, there being every reason to believe that if the above sum were applied in reference to a comprehensive plan of improvement, founded upon experience, and after the example of more modern similar establishments, it would go far to raise the CHESTER INFIRMARY to the first rank of existing Medical Charities, if not in point of exterior appearance, at least in that of comfort and scientific arrangement.*

*Resolved,—That, in conformity with the spirit of the above Resolution, the Committee, appointed by the last General Meeting, for superintending the erection of the New Wards, Baths, &c. be earnestly requested to suspend their labors till after the Special General Meeting, to be called this day, for taking into consideration the best mode of prospectively introducing (according to the resources of the charity) every improvement made at other similar Institutions, in the Separation and Classification of the Patients—in the Heating and Ventilating the different Wards—in the Establishment of Day Rooms, Improved Water Closets, and Baths—in Cooking—in the Washing and Drying of Clothes, &c. &c.; and that, at the same time, this Board anxiously trusts the Committee will use every exertion to procure Plans (with Estimates of Expense) for carrying the same into effect, for the information of the Meeting; and, moreover, that they will turn their attention, in the shape of a Report to the Meeting, to every subject—whether of Repairs, especially those of the Roofs, Stairs, Windows, Floors, New Regulations, and whatever shall appear to them to embrace the Interests of the Institution.*

*Resolved,—That a Special General Meeting of the Governors be holden on Wednesday the 8th day of September, to take into consideration the Report of the Committee upon the above specified subjects, when it is earnestly hoped, the importance of the interests to be discussed—"The Interests of the Poor"—will secure the attendance of a numerous body of resident as well as non-resident Subscribers.*



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“ Mr. Sylvester has provided suitable Stoves for supplying the Wards and the greater part of the Building with a constant supply of fresh air at a moderate temperature ; has furnished the Kitchen with an improved Apparatus applicable to the various culinary purposes of the House : and also constructed the Baths upon a more commodious plan than heretofore. It will be satisfactory to the Subscribers to learn, that the more speedy recovery of the patients has been greatly promoted by the improvement in the system of ventilation, since the Apparatus introduced by Mr. Sylvester has been in operation ; and that opportunity has been afforded of accommodating a greater number of patients in each ward.”

BIRMINGHAM HOSPITAL REPORT FOR 1823.

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# CHESTER INFIRMARY,

*Board Room, 8th September, 1824.*

AT THE SPECIAL GENERAL MEETING OF THE GOVERNORS, held this day, for the purpose of receiving the Report and Plans of the Committee, appointed on the 15th of June last, for superintending the erection of convalescent Wards, Baths, &c.

WILLIAM HARWOOD FOLLIOTT, ESQUIRE, CHAIRMAN.

## RESOLVED,

That the Report now read be received.

That this Board, duly appreciating the importance of the labours of the Committee as modified at the desire of the Weekly Board, of July 6th, do request them to continue their inquiries---to confer with Mr. SYLVESTER, as to the cost and the best mode of introducing his Apparatus for warming and ventilating the Building, as well as for Cooking, Washing, &c. and it is further requested of the Committee to take under their consideration any Plans which may be submitted to them, and to apply for such other Plans as they may think will be desirable to ensure the best improvements for the Infirmary, and to prosecute their examination into the Rules and Regulations of the Charity.

That when the Committee shall be prepared with a full Report upon all points affecting the interests of the Charity, they inform the Weekly Board of the same, who are hereby requested to call a Special General Meeting of the Governors to consider and decide upon it; and that in the mean time the Secretary be ordered to send to each of the Governors a printed Copy of the Report read this day, and the Lithographic Plans of Mr. COLE, JUNR.

That the Committee be requested to consider of the best mode of effecting the very important improvements proposed, so that the funded property of the Charity shall be encroached upon as little as possible, and that for this, or the general purposes of the Committee, they be authorised to add to their number, the following gentlemen :---Lord Belgrave, Col. Ince, Rev. R. Massie, G. B. Granville, Esq. C. Morrall, Esq. H. Potts, Esq.

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At a Meeting of the Committee appointed to procure plans and estimates for improving, extending, and repairing the Infirmary, it was agreed to lay the following statement before the Special General Meeting, convened for the 8th of September :---

Your Committee beg leave to offer a few preliminary remarks before they proceed with their report. The Committee appointed by the Special General Meeting of the 15th of June, for the purpose of superintending the erection of New Baths, Wards, &c. became convinced "in the first stage of their inquiry", that the powers entrusted to them were too limited to carry into effect the improvement contemplated. It was allowed that the intended alterations would materially enhance the conveniences of the institution, but it appeared to the Committee an objectionable feature of this plan, that it was isolated and incapable of being brought into any such comprehensive scheme of improved arrangement, as the defects of the institution demanded, and the advanced state of science rendered practicable. The sum voted was too small to effect the objects for which it was designed, and much too large to be expended without the most mature reflection upon the wants of the Infirmary, and its bearing and influence upon ulterior improvements.

These considerations induced the Weekly Board of the 6th of July, to request the Committee to suspend the execution of the measures entrusted to them, and to direct their attention to a liberal and comprehensive survey of the defects and capabilities of the institution, so that there might appear a systematic refer



ence to prospective improvement, in whatever sums were expended. In compliance with this request, the Special General Board is now presented with the following Report :---

### REPORT.

The first object to which your Committee directed their attention, was an inquiry into the general state and arrangements of the Infirmary, as far as relates to its conveniences and defects, as a building devoted to medical purposes.

Whilst they have found abundant reason to applaud the spirit and munificence of the original founders, in the erection of an edifice so substantial and extensive, and according to the knowledge of that time, so well calculated for the reception and relief of a very considerable number of patients, they do not hesitate to state, that when compared with buildings of more modern contrivance, it is essentially defective in many of those arrangements, the utility of which is universally admitted, and the adoption of which is rendered easy by the advancement of practical science. In no one respect is the present age more importantly, or more favorably distinguished from preceding times, than in the active application of scientific discoveries to the improvement of the conveniences and comforts of life. Utility of practical result is become the great aim of the laborious experimentalist, and the recondite theorist. In this great pursuit of useful science few men have been more happily distinguished than Wm. Strutt, Esq. of Derby. So far back as 1792, he introduced into his large cotton factories at Belper, the system of warming and ventilating them, by throwing into the rooms streams of fresh air, and expelling that which had been spoiled by respiration; while he at the same time regulated the temperature of every part of his building according to the season and the occasion. The result corresponded with his humane intentions, and the healthiness of his labourers was strikingly promoted. The vast importance of the end, and the beautiful simplicity of the means, have obtained for this discovery a very extensive adoption, and well merited fame for its author.

In 1807, the Trustees of the Derby Infirmary sought the aid of Mr. Strutt, in planning and superintending their new Building, which was accordingly erected under his supervision. The arrangement of its wards and offices, the effective simplicity of its perfect ventilation, its self-purifying water closets, its culinary contrivances, and those of its laundry, and its baths, bear ample testimony to the soundness of his theory, and to his ingenuity in bringing that theory into operation.

Your Committee have thus pointedly referred to the example of the Derby Infirmary, and Mr. Strutt's Factories, (they might have added many other instances in which the same principles have been adopted) in order to satisfy the Board, that what they are about to recommend for the Hospital at Chester, is not merely the suggestion of a plausible theory, but that it has received the sanction of the most ample experience.

Every man of observation, whatever may have been his education, whether professional or otherwise, must have noted, and must be fully convinced of, the importance to the sick of an atmosphere frequently renewed, and duly tempered to the nature and tendencies of the existing disorder. The skilful physician in his private practice recommends, urges, insists upon it. It frequently constitutes his main hope, both for the sufferer and his attendants, even in the best accommodated families; and how incalculably is its importance increased by the circumstance of a multitude of surrounding invalids in the wards of a public hospital! To place, then, a supply of fresh and duly attempered air out of the reach of chance, caprice, or folly, and to make it depend upon the laws of nature only, is surely an object worth some pains and expense to obtain. This great desideratum has been ensured to other institutions, and your Committee will now attempt to show, that it is equally attainable in our own; and that by adopting the plans of Mr. Strutt as put into practice in numerous public buildings, by Mr. Sylvester, and by diminishing the size and increasing the number of our wards; the Chester Infirmary is calculated to afford in these respects all the advantages of the most perfect medical establishments.

A sunk area round the whole of the building offers us, in the fine range of cellaring (which is at present nearly useless), a most valuable and complete set of offices, when thus lighted and drained; and by freeing the foundations from the superabundant moisture which is now sapping them, promises to add to the durability of our noble edifice.



In the next place the long wards have 24 beds in each, occupied by patients in all the different stages of disease, the slightly ailing and the nearly dying, the convalescent and the delirious, the nervous and the loathsome. This obvious defect may be easily rectified by carrying up brick partitions, so as to divide these long wards each into three, thereby facilitating a due classification of the patients, and by forming, upon a level with the wards, as in the plan now produced, galleries round the interior quadrangle, for exercise and communication with the different rooms. The advantages of well ventilated galleries offering in all weathers a pleasant and healthy walk to the convalescent patient, are too striking to allow your Committee to enlarge upon them.

Your Committee have now to speak of the New Buildings which will be required in order to perfect the arrangements they recommend for the convalescent or day rooms, baths, improved water closets, kitchen, &c. As the proposed sunk area round the building will provide for its free ventilation, your Committee have no hesitation in recommending the excavation of the internal area for receiving a transverse building, and to form in the basement story an improved kitchen and laundry, and to afford space for a steam boiler for cooking, washing, and heating the baths. The air cockle or stove, for warming and ventilating the whole of the building, should also be placed here. The first floor would contain two day rooms, together with baths and water closets, communicating with the new galleries as mentioned before, for the use of male and female patients respectively; and the same accommodations will be provided for the second or upper story. Nor should it be forgotten that by this arrangement, the dinner and other trays may, by a very simple piece of machinery, be sent up direct from under the Matron's eye into the day rooms, and thence distributed into the different wards as arranged, whether for full, moderate, or low diet.

The estimate for the whole of this new Work, exclusive of Mr. Sylvester's Apparatus is 1,204*l.* but the Committee not having been able to see that Gentleman since the time he inspected the House, are not prepared to speak precisely as to the charge of this additional Apparatus. For the detail your Committee refer to the accompanying Plans, designed by Mr. Cole. Agreeably to the instructions of the Committee, Mr. Cole, has further made a separate estimate of the REPAIRS of which the house at present stands in need, including the roof, floors, stairs, windows, &c. The total amount 1152*l.* is certainly large, and it will be for the Board to say, whether the whole, or what part of them should be immediately executed; but it may perhaps be deemed conformable with the strictest economy at once to effect a thorough and durable repair, when it is recollected that the incidentals under this head of expenditure have in the last FOUR years amounted to 820*l.*

Your Committee could not have recommended the outlay of so large a sum in the new work and alterations, in addition to that required for repairs, if they had not been deeply impressed with the decided advantage attending these improvements, and the superior claim which would then be established upon the liberality of the district. A well regulated Hospital, watchfully attended and scientifically conducted, is no less a blessing to the rich than to the poor. It becomes the centre of professional intelligence and a stimulus to further improvement. It aids the progress of medical science by the minute details it offers to the adept; and it trains up the pupil to accurate observation, diligent comparison, and liberal inquiry, and gives him the incalculable advantage of actual and varied experience. It likewise offers charity in the form least objectionable to the giver and receiver. There is nothing degrading to the poor man, whose strength is prostrated, and whose means of support are withdrawn by the hand of sickness, in applying for relief to a public Hospital, and "no one can question whether wounds and sickness are not really painful; whether it be not worthy of the good man's care to prevent disease, to restore those to health and usefulness from whose labour infants and women expect their bread, and who by a casual hurt or lingering disease, lie pining in want and anguish, burthensome to others, and weary of themselves."

Your Committee will conclude with stating, upon the very important subject of regulations recommended to their attention by the Resolutions of the 6th of July, that they have not had the leisure to devote to them which their great influence on the welfare and respectability of the Institution demands. Upon one point however, they are agreed to recommend an alteration as essentially beneficial, viz. that an annually elected Committee of management should be substituted for the present system of open Boards, by which regulation they are convinced that an increased degree of order, consistency, and practical efficiency would be given to your proceedings.



## *Mr. Cole's Report to the Committee.*

GENTLEMEN,

Agreeably to your request, to have a Report, upon the general state of the Building of the Infirmary, and the best means of repairing and improving the same, I have paid due attention to the subject, and beg leave to submit the following as the result of my investigation.

### BASEMENT.

The greatest part of the Basement or Cellar Story, has hitherto been quite useless, owing to the want of a sunk area, round the building. The Cellars on the west and north sides are in so bad a condition, that, but for the making of small Wells in the corners of each, which require constant emptying, they must necessarily be deep in water, which, lodging as it does, cannot fail materially to injure the foundations of the Infirmary. I therefore beg leave to propose the formation of such an area (as shown on the Plans) together with proper drains for securing the Building, as well as for meeting the general wants of the establishment, and also to admit light and air to the Cellars, so as to make them available to such purposes, as I have therein detailed.

The passages and greatest part of the Cellaring are destitute of Floors, and even those floored (excepting the Cellars, now used as a Cooling Room and Beer Cellar) want re-laying. New Windows will be wanted to nearly the whole of the Basement or Cellar Story.

### GROUND FLOOR.

The floors of the north, south, and west Corridor, Kitchen, Scullery, Entrance Hall, Laboratory, Surgery, Porter's Room, Admission Room, Shop, Baths, and Back Stairs, are much worn; they should be taken up, and the north, south, and west Corridor, the Kitchen, Entrance Hall, and back Stair Floors, should be replaced with Yorkshire flags, and the others relaid with red stone; the superfluous flags to be used in the passages of the Basement story.

The Back Stairs at the east end are in a dilapidated state, and much too narrow and steep for the conveying of the sick and hurt to the various Wards, I should therefore recommend a Stair Case of Stone, 6 feet wide, and 6 inches rise, with proper iron rail and baluster. The front wall of the projection at the east end has given way, owing to the weight of the cistern above; it should be carefully taken down, and rebuilt.

### FIRST FLOOR.

The Floor of the Male Ward being very much worn, should be taken up, and re-layed with new boards, and such parts of the old materials that are sound, to be used in repairing the Floors where required. The Doors and Windows will require a thorough repair.

### UPPER STORY.

The whole of the Floors of the Operation Room, Male and Female Fever Wards, will require to be taken up, and relaid with new boards; the Floors in the Operating Room, should, in future, be covered with an Oil Cloth, and the Floors of the various other Wards will require a thorough repair, likewise the Doors and Windows.

### ROOF.

The Gutters of the Roof on the four sides of the Building are in a bad state; on the north side the gutter bearers have given way, so as to allow the water to lodge considerably; the bearers should be repaired, and the gutters re-cast and re-laid.

The four outsides of the Roof being covered with small old Slates, are continually wanting repairs,



and with the view of effectually preserving the Roof and Ceilings, I have to propose, that the four outsides should be covered similar to the insides, with the best Queen Slates.

The whole of the Chimneys and Parapets should be repointed, to secure them from the weather. The rest of the repairs of Doors, Windows, etc. I have included in an Estimate of Expense, actually, and in my opinion, essentially necessary for the general security and improvement of the Building, which will, in a short time, be considerably dilapidated, if these repairs be not now carried into effect.

I have the honor to be,

Gentlemen,

Your very obedient servant,

WILLIAM COLE, jun.

	L.	s.	d.
Estimate of Expense for the repairs of Doors, Windows, Floors, new Floors, Sunk Area, Roof, Gutters, &c.	1152	10	6
Estimate of Expense for a projected new Building, and other Alterations, as shown on my plans	1240	0	0

Mr. Sylvester's Estimate of the Apparatus required, for Heating, Ventilating, Cooking, Washing, etc.

	L.	s.	d.
Stove for heating	150	0	0
Castings and Plates for Laundry stove	10	0	0
Horses for Laundry	40	0	0
Two Boilers for steam	60	0	0
Two Stew Hearths	10	0	0
Two Roasters	34	0	0
Grate	3	10	0
Steaming Table	20	0	0
Soup Boiler	12	0	0
Two hot water Cisterns, for Scullery and Wash-house	50	0	0
Boiler to Wash-house	6	0	0
Four Baths	20	0	0
Cisterns in Roof	85	0	0
Water Closets	100	0	0
Total of Mr. Sylvester's Estimate		600	10 0
Total amount		L2993	0 6



## DESCRIPTION OF THE CHESTER INFIRMARY ;

*Together with a detail of the Improvements contemplated by the Committee appointed on the 22d of June, for Superintending the Erection of Convalescent Wards, Baths, &c.*

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BY WILLIAM COLE, JUNIOR, ARCHITECT.

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THE CHESTER INFIRMARY is upon the most common Plan, that of a Quadrangle, the Ground Floor of which is appropriated to Offices, with two stories above for lodging the Sick and Hurt. There is also a noble range of arched Cellaring and premises upon the sunk or basement story, and which has hitherto been of little use—the whole being so ill Lighted, Drained, and Ventilated.

The principal Wards lie to the North and South and run the whole length of the Building, each containing Twenty-four Beds ranging along the opposite sides, while the East and West sides of the Quadrangle are taken up with Staircases, Chapel, and smaller Rooms for Nurses, &c. looking into the Area.

From what has been said, the Quadrangular form of an Hospital must, in general terms, be considered objectionable, inasmuch as it prevents Ventilation and causes a Stagnation of Air, tainted by a variety of noxious effluvia: indeed the Central Space or Area at the Chester Infirmary is, in hot weather, so loaded and noisome as to require the Front and Back Doors of the Institution to be constantly open to render the Matron's Room, and other Offices on the Ground Floor tolerable, and has, long ago, induced the Governors to block up the Windows of the long Wards looking into the same.

To rectify this defect has been a leading care of the Committee under which I have the honour to act, and I am willing to hope that while I have succeeded in obviating this serious objection to the form of the Building, I have hardly been less fortunate, with the friendly advice of the Committee, in so combining Modern Improvement with the capacities of the Original Structure, as to produce *a whole*, striking not only from its regularity of Plan, but also from its reference to a system of the most extended and varied comforts. And, surely, when we daily see large Sums expended, and much time and attention bestowed, upon the subject of bettering the condition of hardy and daring Criminals, who can doubt the paramount duty of attending to the Interests of the Industrious, but Sick Poor, at our County Hospital?

As to the slighter modifications of the Plan—as to Nurses' Rooms and Minor Offices—I have purposely left these to others. Of space or room there is enough, and I have only to observe, that my chief aim has been to produce a *Condensed Plan*, embracing the instructions of the Committee; namely, to Provide for the Heating and Ventilating the different Wards—the Establishment of Day Rooms, Improved Water Closets, Baths, &c. &c.

In the first place—by forming an Area of Six Feet around the Building, and by sinking the Court to the same depth as that of the Foundation, we obtain not only thorough Ventilation, but also, a range of important Offices in the Basement Story; viz. A large Scullery, and also Two Wash-houses, One by Steam, the other for Washing in the common mode; to say nothing of an endless series of Cellaring, Store-rooms, &c. &c.

Having mentioned the Scullery, and Wash-houses, I have now to describe the New Transverse Building in the Area, consisting of an Improved Kitchen, and Laundry, communicating with their above described respective Offices, and leaving an Area of Twelve Feet on each side, for supplying a current of *Pure Air*, from the Area on the Outside the Building, as conducted through Gratings, Windows, or Air-Tunnels, as wanted. And, as to light, there can be no want of that (the Interior Walls being Annually White-washed) there being an *Open Sky-Light* of One Thousand Square Feet; whereas, was the Quadrangle Roofed in after the manner of the Derby Infirmary, it would hardly be possible to command by a Dome-Light One-Fourth part of such Illuminating Power or Influence. But as to supply the Institution with a current of Pure Air, and also to provide a convenient additional Building for Day Rooms, Baths, and Water Closets, are the primary objects, it would be needless to Roof in a space not required, when I state, upon authority, that when the proposed Galleries and Day Rooms shall be completed, the Chester Infirmary would be able to accommodate One Hundred Patients instead of Sixty, which is about the Average Number that the present State of the Funds can support.

Increased comfort and convenience, therefore, have chiefly been aimed at, and I trust that, by appropriating the Lower Story of the Transverse Building to the purposes of an Improved Kitchen, Apartments for Heating and Ventilating the Building and Laundry, (as at the Derby Infirmary and other Places,) important advantages will be obtained; and on the First Floor there are Two Day or Dining Rooms, Two Baths, and as many Water Closets for the use of the Male and Female Patients respectively; and in the Upper or Attic Story equal accommodation, for the Sick, is provided for.

As to the important improvement of separating and classifying the Patients, it will be observed, that I secure this by dividing the long Wards into three or more each, by forming a Gallery of communication round the Quadrangle, as well as of approach to the different Day Rooms, Baths, and Water Closets as described, as occupying the Upper Stories of the Transverse or Central Building.

I have particularly to regret, that I have not been able to obtain Mr. Sylvester's assistance, in pointing out the best mode of Heating and Ventilating the different Wards; but from what I have seen of his Plans at the Liverpool Infirmary, I have



no doubt that the most proper situation will be under the proposed New Laundry, for placing the Heating Apparatus, Steam Boiler,\* &c. &c.

As to the conversion of the present Kitchen, Scullery, Wash-house, and Laundry, to useful purposes, I beg to refer to the Committee, contenting myself with stating generally that, according to their views of prospective improvement, the Public are likely to save a Sum of Money nearly equal to that required (£1,240) to complete the New Building, Galleries of Communication, &c. &c. as described in the accompanying Plans.

*Chester, Sept. 6, 1824.*

\* Since the above was written, I have had the satisfaction of a personal communication with Mr. Sylvester, in Liverpool, and I am happy to say, that he proposes to place his heating and ventilating apparatus under the laundry, as I had conjectured he would : and it may here be observed, that Mr. Sylvester purposes to introduce the most approved cooking apparatus, whether for roasting, baking, boiling, &c. ; and as one of the steam boilers ought to be constantly kept in operation, the steam when not required in the kitchen and other offices, is permitted to ascend, so as to heat the cisterns placed in the roof, and thereby to afford at all hours, a supply of hot water for the use of the baths, nurses' sculleries, wash houses, &c. Indeed, Mr. S. gives it as his opinion, that it will be easy to carry into effect perfect ventilation, as well as every improvement made in the culinary department at similar institutions, the central station chosen for diffusing the hot air, as well as for collecting and carrying off by a lofty common chimney, that which has been vitated by respiration and other causes, in the different Wards, proving singularly favorable to his views as an Engineer. I have also to observe, that I have taken the liberty, (having profited by experience and the kindness of friends,) of making some slight alterations in the plans submitted to the General Meeting.—In the first place it will be observed, that I propose to close in by proper windows the openings in the passage of the sunk or cellar story, as well as those of the corridor upon the ground floor, providing thereby increased comfort and convenience. It will also be observed, that the proposed day-rooms in the new or transverse building, have given way to those for nurses ; and that I have divided the long Wards into five each, (the central ones to form the day or dining-rooms,) instead of three, it appearing highly desirable to provide for the varied wants of the patients, medical and surgical, by increasing the number of the wards for their reception, and because it is ascertained that the smaller the wards the more perfect the ventilation. But it cannot fail to strike every observer, that whether the old or new system of ventilating, heating, &c. &c. shall prevail, the proposed sunk areas with proper air tunnels, windows, and gratings, must render the entire establishment much more airy, dry, comfortable, and wholesome, than at present. As the important question of attaching a Dispensary to the Infirmary, was introduced at the last Special General Board, I have only to hope that the appropriation of the old kitchen, scullery, and servants' bed-rooms, as in my plans to that important purpose, will meet with the approbation of the subscribers ; so I trust will that of converting the existing Porter's Room and Surgery, into a Ward for Accidents. The enlargement of the Chapel, I hope will meet the views of those appreciating the moral influence of Sickness, as by wheeling upon a light sofa, or other contrivance, into the nurses' rooms, those who are not able to bear the hurry and fatigue of walking to Chapel ; they would there enjoy the comfort and advantage of hearing the service of the Church regularly performed.

### *Enumeration and appropriation of the Apartments in the proposed plan of the Chester Infirmary.*

#### BASEMENT STORY.

- 1 Kitchen.
- 2 Scullery or Back Kitchen.
- 3 Apartments for Mr. Sylvester's Apparatus.
- 4 Brew-house.
- 5 Larder.
- 6 Pantry and Dairy.
- 7 Store Room.
- 8 Women Servants' Bed-room.
- 9 Laboratory and Drug-room.
- 10 Double Wash-house.
- 11 Ale and Wine Cellar.
- 12 Wood Cellar.
- 13 Coal Ditto.
- 14 Vegetable Ditto.
- 15 Vault for Dead.

#### GROUND STORY.

- 1 Entrance Hall.
- 2 Dining Room.
- 3 Board Room.
- 4 Matron's Ditto.
- 5 Matron's Bed-room.
- 6 Library.
- 7 Surgeon's Bed-room.



- 8 Pupils' Ditto.
- 9 Accident Ward.
- 10 Medical Officers' Room.
- 11 In-patients' Waiting-room.
- 12 Shop.
- 13 Cold Bath.
- 14 Porter's Room.
- 15 Stone staircase to Wards.

## DISPENSARY DEPARTMENT.

- 16 Medical Officers' Room.
- 17 Waiting-room for Out-patients, with bath for male patients
- 18 Dispensary.
- 19 Anti-room to Dispensary, with bath for female patients.

## FIRST FLOOR—FEMALE APARTMENTS.

- 1 Ward for four Patients - - 17 by 22 height 13 feet.
- 2 Ward for four Patients - - 18 by 22 ditto.
- 3 Day or Dining-room - - 19 by 22 ditto.
- 4 Ward for four Patients - - 18 by 22 ditto.
- 5 Ward for ditto - - 17 by 22 ditto.
- 6 Convalescent Ward for 4 Patients 17 by 17 ditto.
- 7 Private Ward for two Patients 16 by 11 ditto.
- 8 Nurse's Room
- 9 Water Closet.
- 10 Bath.
- 11 Scullery.
- 12 Nurse's Bed.

## MALE APARTMENTS.

- 13 Private Ward for two Patients 16 by 11 height 13 feet.
- 14 Ward for four Patients - - 17 by 22 ditto.
- 15 Ward for four Patients - - 18 by 22 ditto.
- 16 Day or Dining-room - - 19 by 22 ditto.
- 17 Ward for four Patients - - 18 by 22 ditto.
- 18 Ditto ditto - - 17 by 22 ditto.
- 19 Convalescent Ward for 4 patients 17 by 17 ditto.
- 20 Nurse's Room.
- 21 Water Closet.
- 22 Bath.
- 23 Scullery.
- 24 Nurse's Bed.
- 25 Chapel.
- 26 House Surgeon's Bed-room.
- 27 Galleries of communication.

## ATTIC FLOOR.—FEVER DEPARTMENT.

- 1 Ward for four male Patients - 17 by 22 Height 13 feet
- 2 Ditto, ditto - - - 18 by 22 Ditto ditto
- 3 Convalescent or Day-room - 19 by 22 Ditto ditto
- 4 Ward for four female Patients - 18 by 22 Ditto ditto
- 5 Ditto ditto - - - 17 by 22 Ditto ditto



# 13

6	Convalescent or Day-room	-	17 by 17	Height 13 feet
7	Nurse's Room.			
8	Water Closet.			
9	Bath.			
10	Scullery.			
11	Nurse's Bed.			

## MISCELLANEOUS WARDS.

12	Ward for four Patients	-	-	19 by 18	
13	Operating Room				
14	Ward for four Patients	-	-	17 by 22	Height 13 feet
15	Ditto Ditto	-	-	18 by 22	Ditto ditto
16	Day or Dining-room	-	-	19 by 22	Ditto ditto
17	Ward for four Patients	-	-	18 by 22	Ditto ditto
18	Ditto Ditto	-	-	17 by 22	Ditto ditto
19	Nurse's Room.				
20	Water Closet.				
21	Bath.				
22	Scullery.				
23	Nurse's Bed.				
24	Galleries of communication.				

## MAGDALEN.

25	Ward.
26	Day Room.
27	Ward.

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From the above enumeration and appropriation of the apartments, it will appear that the *improved* Chester Infirmary would not only readily accommodate 100 patients, (allowing 1,500 cubic feet of space to each patient in the different wards, galleries, and day rooms,) but also admit of carrying the principle of separating and classifying the patients, medical and surgical, as far as at most similar Institutions.

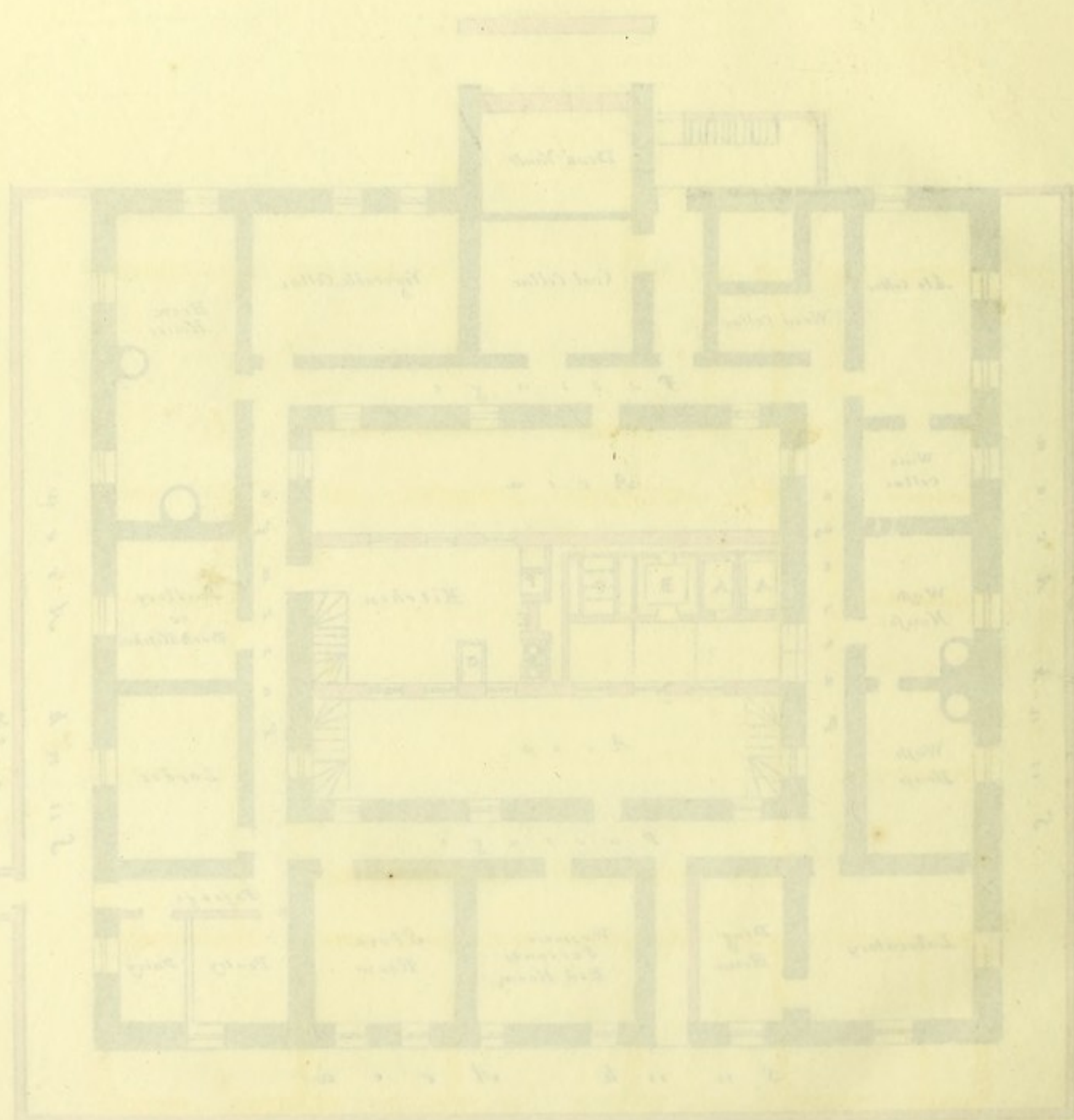












CELLARING in the (C) of the building

WILLIAMS & CO. ARCHT.

WILLIAMS & CO. ARCHT.

WILLIAMS & CO. ARCHT.



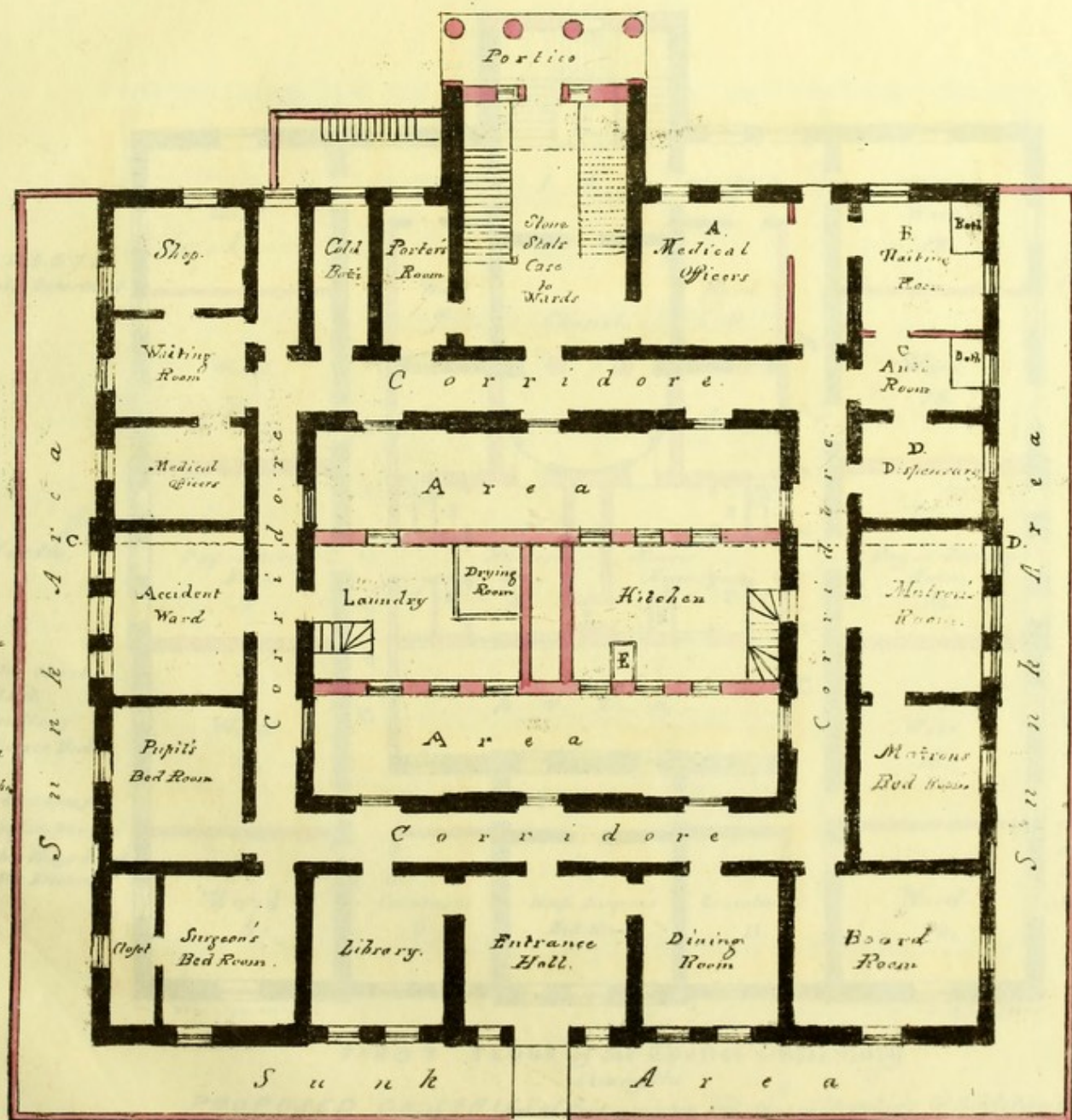
North.

Convenience  
in bringing  
in dinner  
and other  
things direct  
from the kitchen

A. B. C. D.  
Dispensary  
Department

South

The old entrance  
and windows  
are elevated  
by the plan &  
colored red.



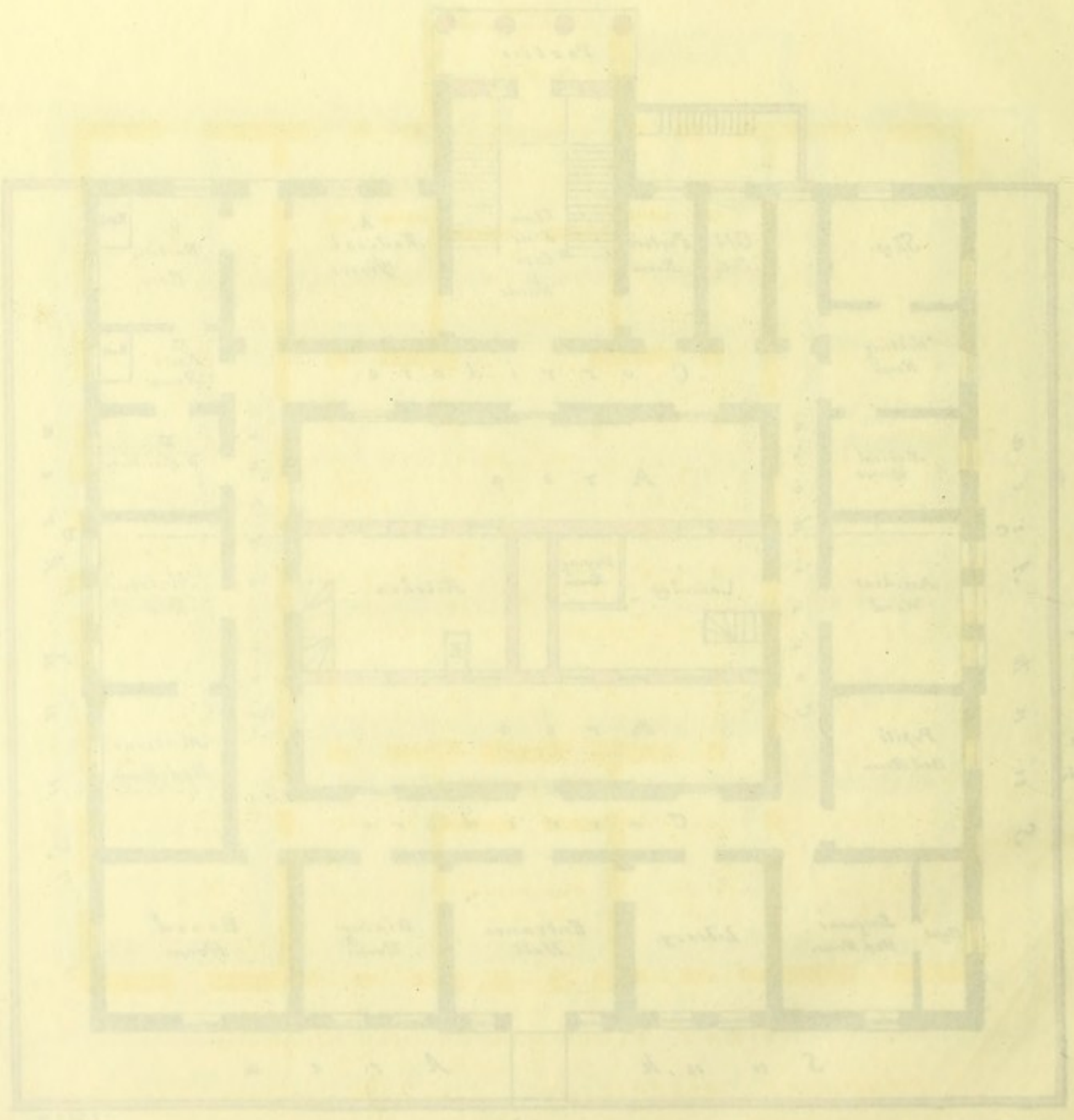
DRAWN BY W. COLE

Lith. J. Thomas

GROUND PLAN of the Chester Infirmary  
WITH  
PROPOSED ALTERATIONS and ADDITIONS  
by  
WILL<sup>COLE</sup> JUN<sup>R</sup> ARCH<sup>T</sup>

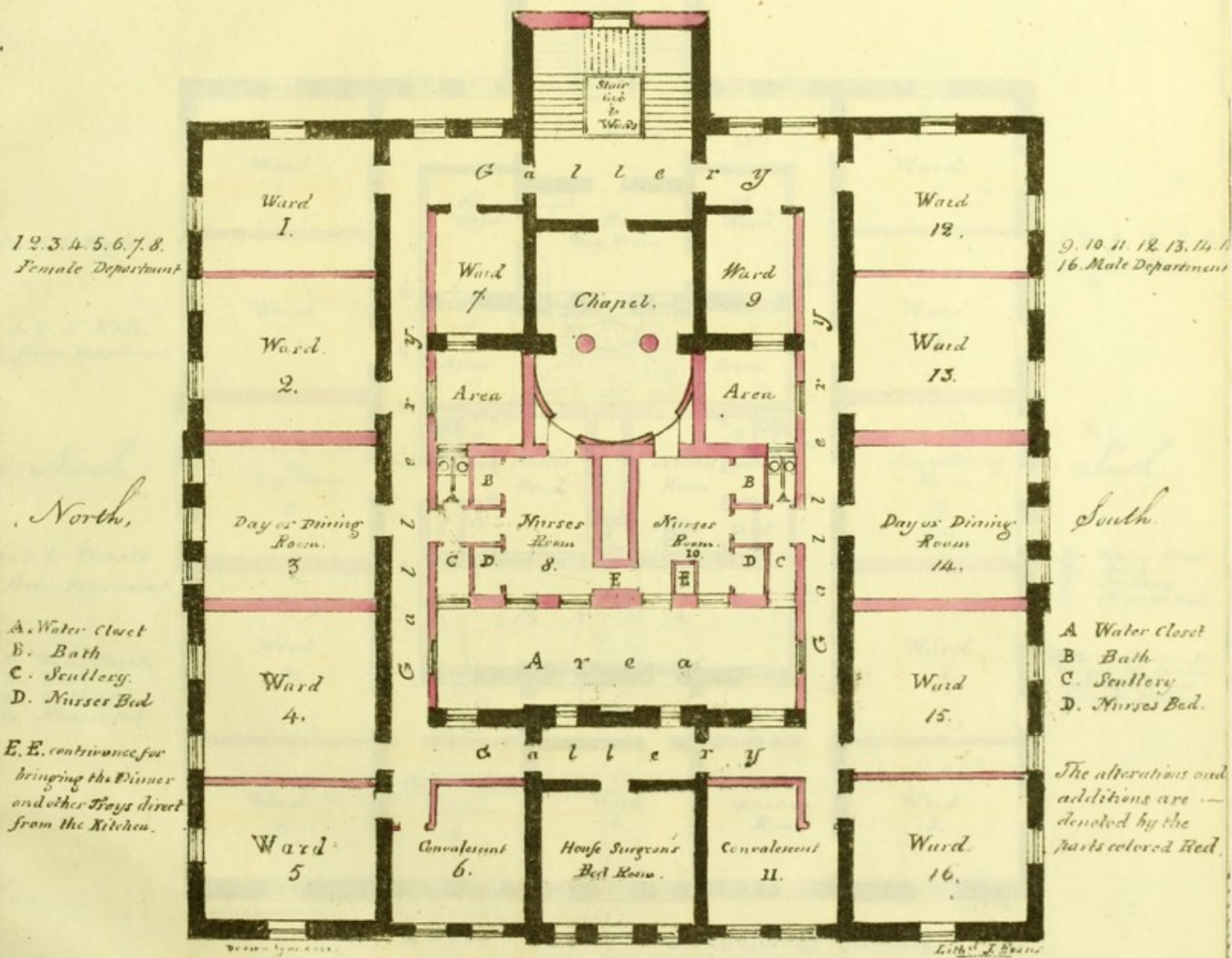
Scale of feet





GROUND PLAN OF THE UNIVERSITY  
 PROPOSED REARRANGING AND ADDITIONS  
 WILL COLE ARCHT.

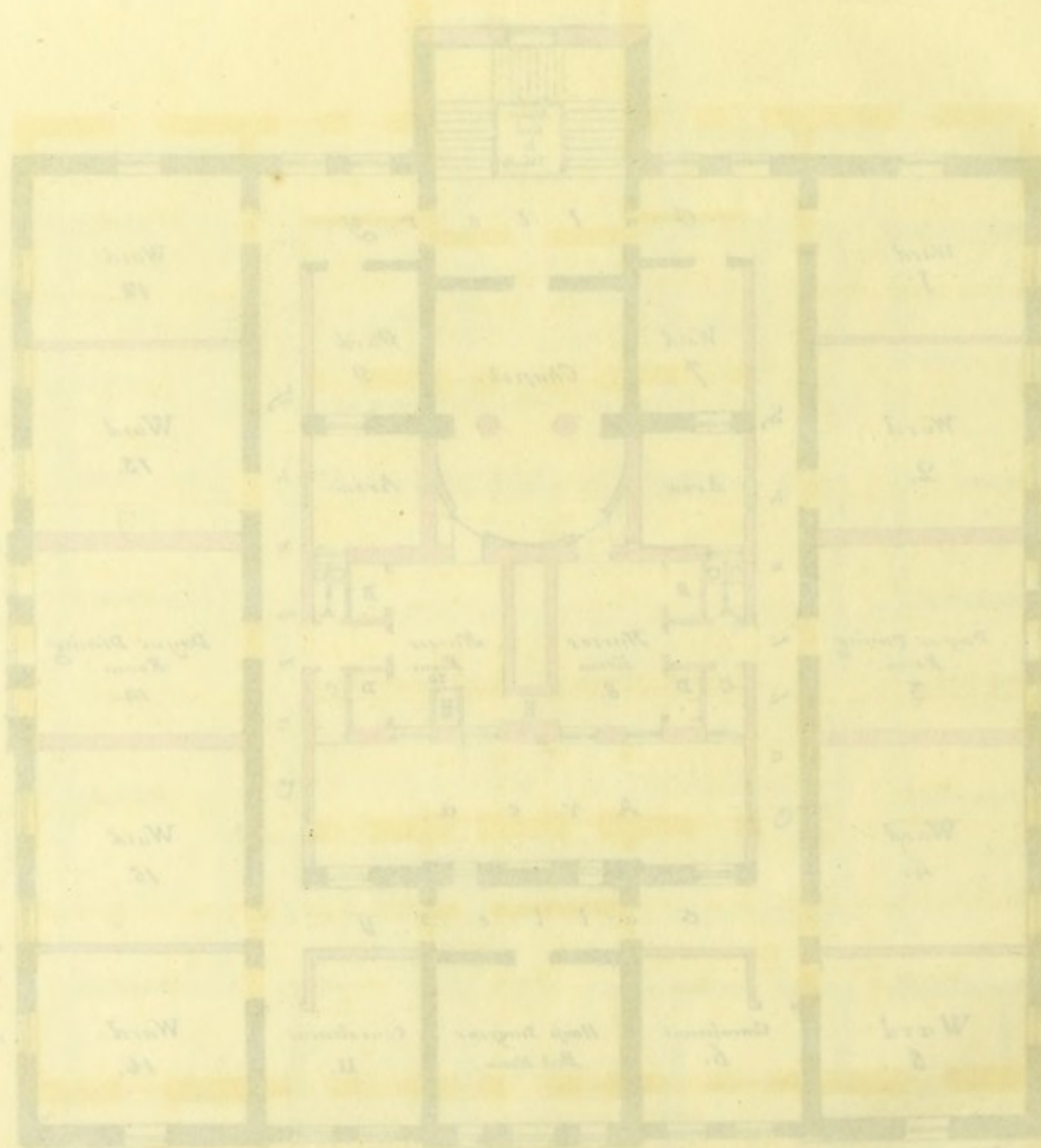




FIRST FLOOR of the Chester Infirmary  
 Showing the  
 PROPOSED GALLERIES of Communication and other Alterations & Additions  
 by  
 WILL COLE Junr Arch<sup>t</sup>

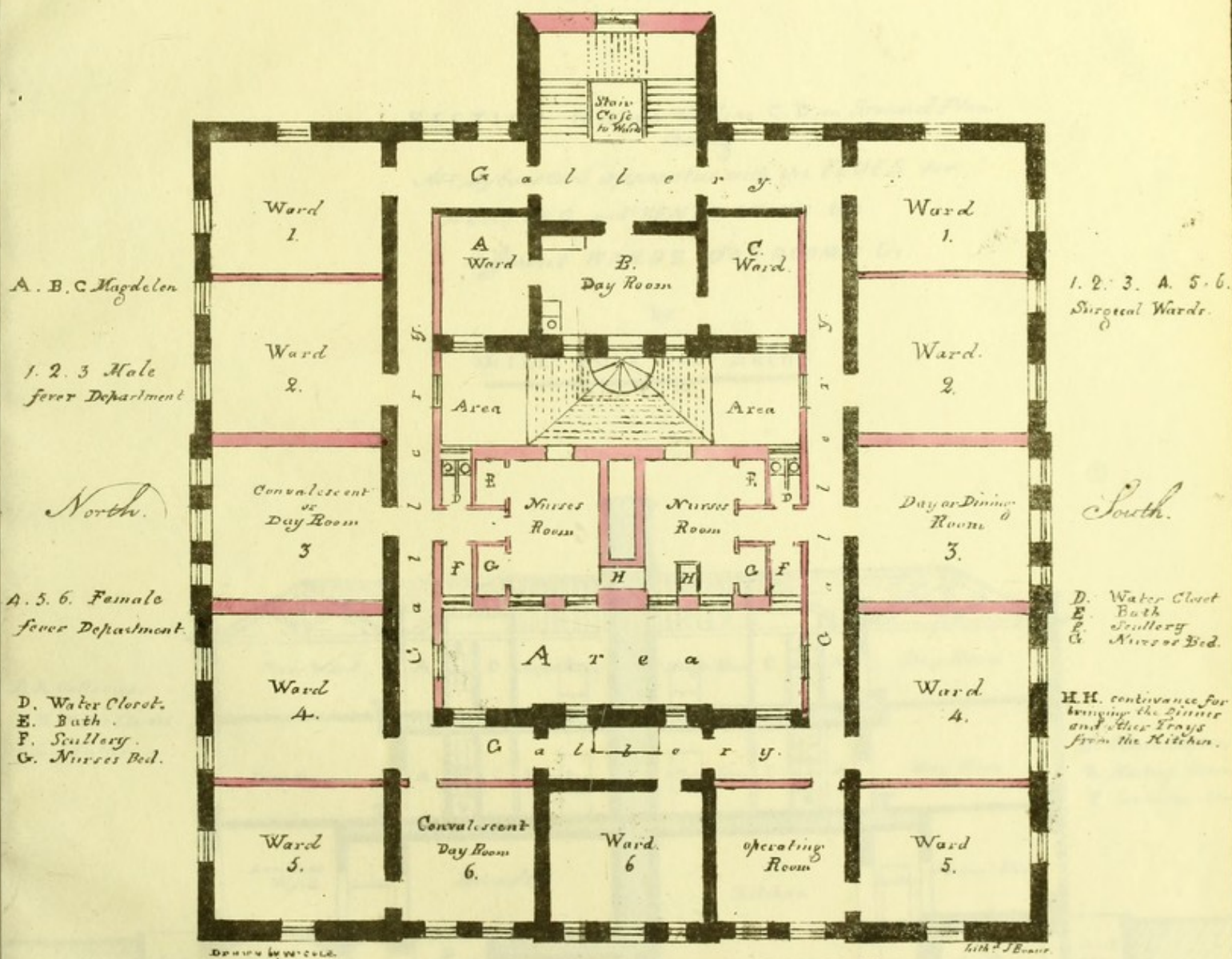
Scale 10 20 30 40 50 of feet.





PROPOSED GALLERY OF THE CHICAGO GALLERY  
 FIRST FLOOR of the Chicago Gallery  
 WILL COLE, ARCHT.





# ATTIC STORY of the Chester Dispensary.

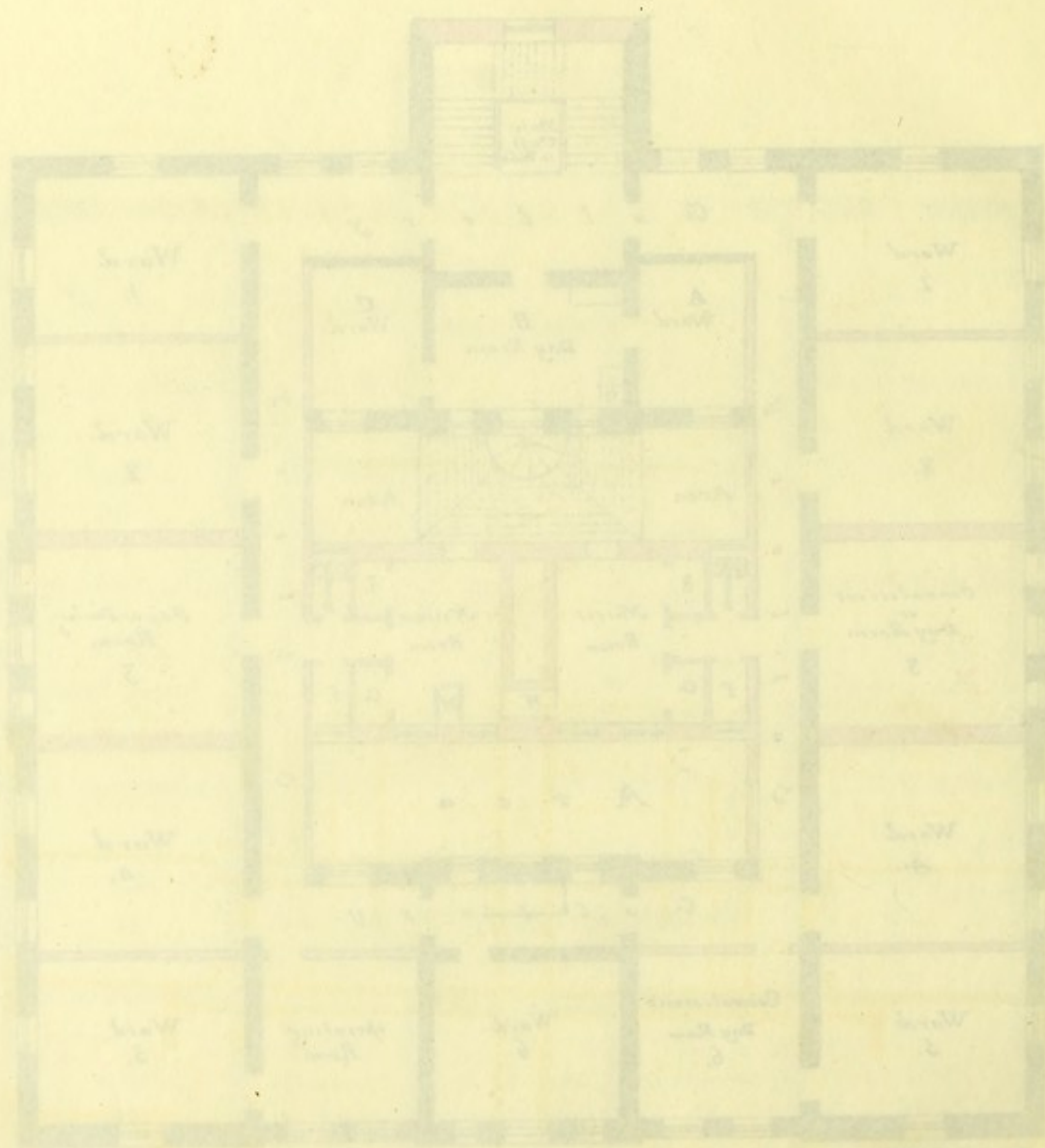
WITH  
PROPOSED alterations and additions.

by

WILLM COLE Junr ARCHT

Scale 0 5 10 20 30 40 50 of feet.





ATTIC STORY OF THE BUILDING

AS SHOWN IN THE SECTION

WALL COLE X-1000

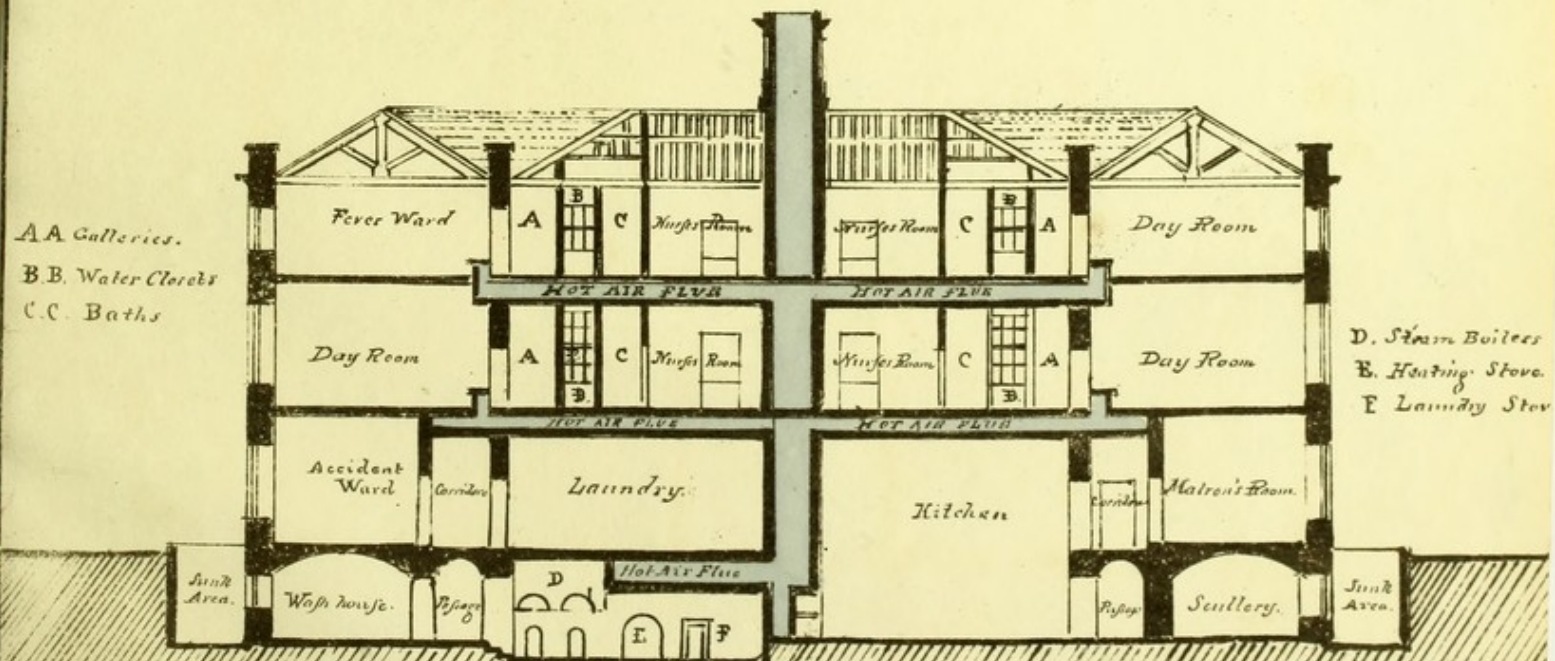
See Section X-1000 for details



SECTION through the line C.D. on Ground Plan  
 shewing  
 Mr. Sylvester's apparatus with the FLUES for  
 HEATING and VENTILATING the  
 different WARDS DAY ROOMS &c.

by

WILL<sup>M</sup> COLE Jun<sup>r</sup> ARCHT





SECTION through the C.D. in ground plan

showing

the general arrangement with the lines of

HEATING and VENTILATING

of the WARD DAY ROOMS &c.

by

WILLIAM COLE ARCHT.

