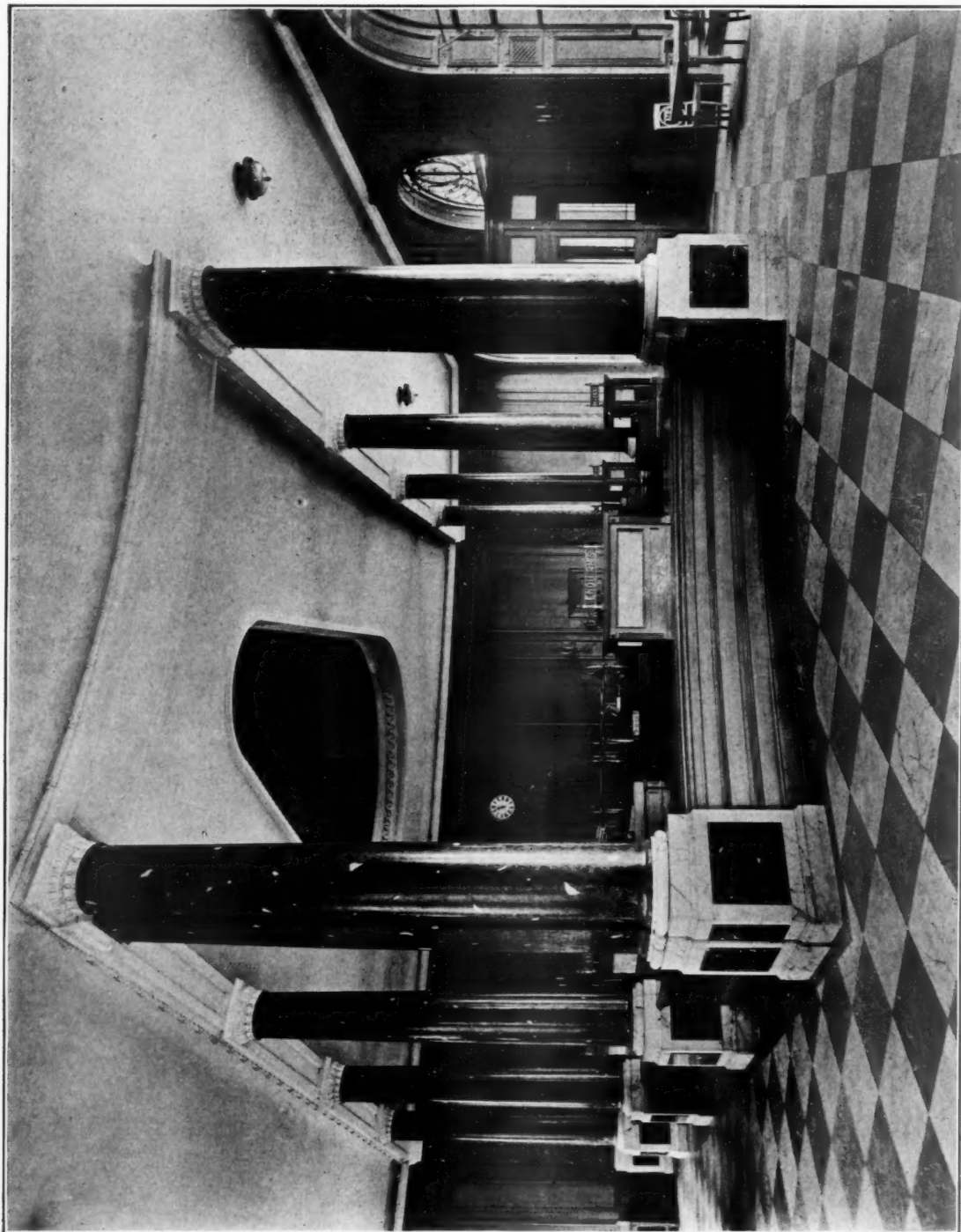


THE ARCHITECTURAL
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NO. 135.



THE "MORNING POST" OFFICES. MEWES AND DAVIS, ARCHITECTS.
THE ADVERTISEMENT OFFICE FROM THE PRINCIPAL ENTRANCE.
See page 127.

Photo: Arch. Review Photo. Bureau.

Notes of the Month.

Iona—The British Museum and Architectural Reference Works—Birmingham Artists—Mr. Horne's Florence Press Types—Mr. Gimson's Furniture—"Restoration" at St. Edmund, King and Martyr—Winchester Cathedral Reparation.



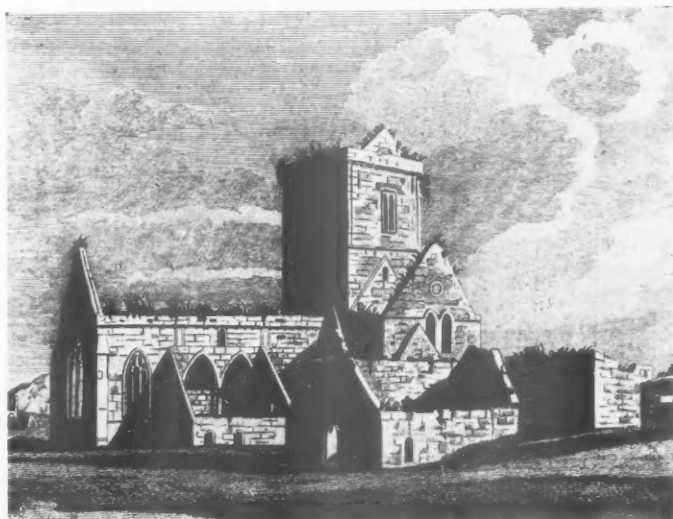
IN July 1903 Mr. A. C. Champneys published in these pages a very interesting account of Iona Cathedral. Hethen wrote: "The most recent and, it is devoutly to be hoped, the last scene in the history of the building belongs to the year just past. The work has fortunately been limited to the re-roofing of the choir tower and south aisle, the glazing of their windows, and the partial restoration of the last-mentioned; . . . Fortunately the old work of the choir and transepts and the arcade of the south aisle is still untouched . . . perhaps the very partial success (in general opinion) of this 'restoration' may be a blessing in disguise, a warning against more ambitious attempts, which in the case of a unique and enigmatical building like this would be simply *inexcusable*."

The italics are our own. Mr. Champneys' devout hopes have not been realised. The simply inexcusable has happened, and our illustrations will tell the painful story. When the trustees of the cathedral decided in their wisdom that a restoration of the north transept was needful (as to which we offer no comment), and when the architect came to prepare details for the work, one would suppose that some reliance would have

been placed on the documentary evidence as to the original work. Now, Pennant's "Tour in Scotland," published in 1776, shows not one but two views of the north side of the cathedral, one from the north-east, the other from the north-west. They are by different artists and agree in this point, that the bull's eye light in the north transept was very small (the diameter being about the width of one of the two lancets below), and separated from the heads of the lancets by a wide space of wall. This can plainly be seen from our reproduction of part of Griffiths' drawing. The underside of this tiny light is far above the wall



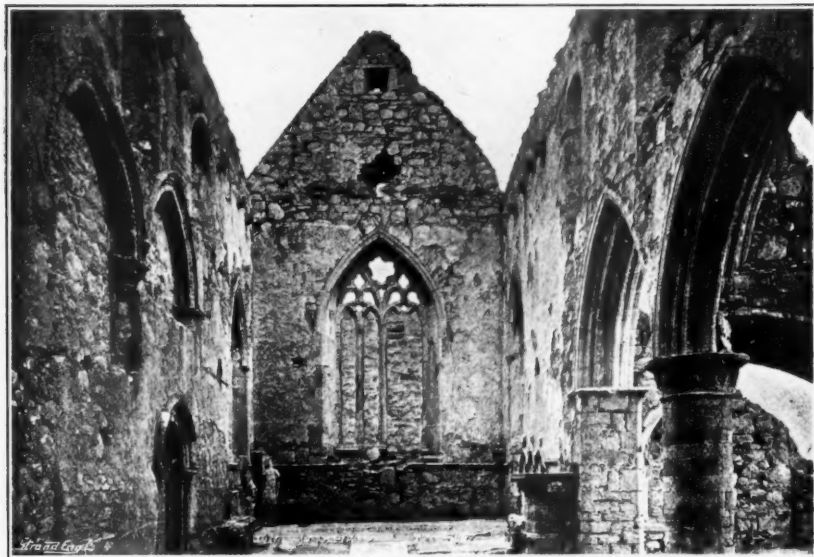
IONA CATHEDRAL, 1907
SHOWING NEW ROSE WINDOW IN NORTH TRANSEPT.



PART OF ENGRAVING OF IONA CATHEDRAL IN THOMAS PENNANT'S
"TOUR IN SCOTLAND AND VOYAGE TO THE HEBRIDES."

line of the transept. Turn now to the photograph of the cathedral as restored. A great traceried wheel window has been put in the north transept gable with its horizontal axis level with the top of the east and west walls. One does not see why the very clear lead of Pennant was not followed.

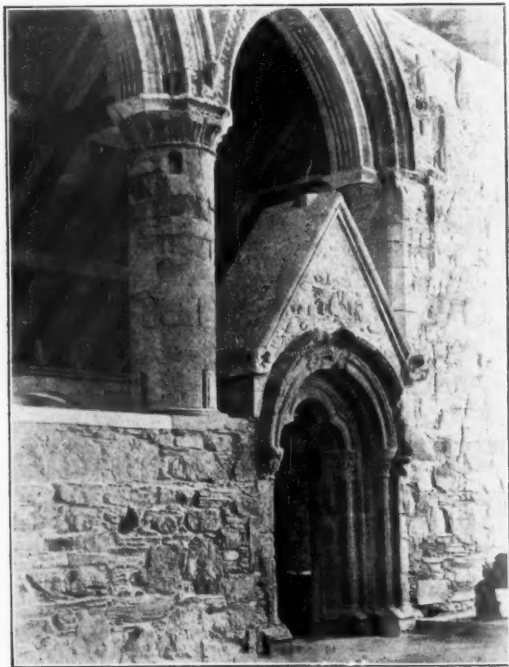
On the north side of the choir, and dividing it from an aisle, was a filling of rubble masonry between pillars. The precise use of this aisle, which is called the sacristy, offers some field for speculation, and the history of the screen is also obscure. For reasons which we should like to think good but cannot, this rubble filling has been cleared away. This removal made a difficulty in connection with the



THE CHOIR: IONA CATHEDRAL AS IT WAS.

exquisite doorway, with trefoil head and thirteenth-century mouldings, which connects the choir and aisle.

The difficulty has been feebly met by erecting over what now looks a meaningless door a crushing gable. Its mouldings finish on one side with a grotesque animal and on the other with an angel with a harp, all very poorly wrought. The angel in particular is quite out of keeping with the exquisite old carved work, of Celtic type, near



IONA CATHEDRAL, 1907: DOORWAY ON NORTH SIDE OF CHOIR LEADING TO AISLE, WITH NEW GABLE ABOVE.

it. We reproduce a view of the screen as it was before it was interfered with, and another of the unpleasant gable referred to. Our readers will be able to judge of the suitability of the latter without further comment. Our hope now (a perfectly futile one, no doubt) is that no new work will be attempted.

The church is built chiefly of a dark red granite, and its whole aspect is one of dour solemnity, in perfect accord with the genius of these Western Isles, and the peculiar sanctity of St. Columba's home.

Anything which strikes a new note will strike a jarring note, and we think it is time for the Society for the Protection of Ancient Buildings to be up and doing, in the devout hope that the restorer and the innovator may be induced to leave this splendid northern sanctuary in peace.



HERE has been much not very fruitful discussion about the nineteen names that decorate the panels under the dome of the British Museum Reading-room, recently redecorated. We may leave Mr. Hall Caine, Mr. G. Bernard

Shaw, and others to fight it out as to whether Locke should be omitted and Dickens included. Far more important, we think, is the question of the re-arrangement of the books of reference in the presses on the ground floor. The principal librarian and his assistants have taken the opportunity of the six months' closing to revise the array of books immediately accessible for reference.

Architecture has always been a Cinderella, but we had hoped that this upheaval would have resulted in the needs of architectural students being considered somewhat. We are disappointed. Certain books absolutely out of date have gone into a just obscurity. Mackenzie Walcott's "Sacred Archæology" will not be missed. Walcott is profoundly unreliable on the history of church planning, &c. Richard Brown's "Sacred Architecture," Loudon's "Encyclopædia of Cottage, Farm, and Villa Architecture," the "Memorie di A. Palladio," A. de Caumont's "Architectures Civile et Militaire," are justly

relegated to the limbo of distant shelves, and we do not weep at the disappearance of the Architectural Publication Society's (1853) "Dictionary of Architecture," though the book has its uses.

But what have we got in their place?

A Latin text of Vitruvius in the Teubner series; the 1893 edition of Fergusson's "History of Architecture" (the 1873 edition still remains, though doubtless it will be discovered later and removed), and Mr. Phené Spiers's "Architectural Drawings" and "The Orders of Architecture." So far, so good. Mr. Spiers's books are of course eminently useful for reference, but they are not the whole law and the prophets. Another addition is Guédy's "Dictionnaire d'Architecture," quite a poor book, and that ends the list.

For gothic work, Rickman's book remains; surely it should have been banished, and Mr. Bond's far fuller and more useful book put in its place? Classical and Renaissance architecture are ignored: we look in vain for our Prior, our Blomfield, our Gotch, and our Belcher and Macartney.

It is true that by filling up a slip, cheery attendants will bring us these things; but they are constantly needed for immediate reference, and without the possibility of this the student of architecture is greatly hampered and his time wasted. There have been hundreds of books added in the domain of classical texts, and above all in Theology and Liturgiology. We have a grievance against the theologians, who are pampered by the Museum authorities while we are left out in the cold.

Architecture is entitled to at least one press to itself, and we hope it is not too late for the matter to be reconsidered.



TWO of the picture galleries in December there were exhibitions of particular interest to architects. The Fine Art Society at 148 New Bond Street collected a series of works by Birmingham artists and craftsmen. It is part of Time's revenges that the city whose slang name represents all that is dreadful in decorative art should possess a school which aims "at the recovery" (we quote from the catalogue) "of that connection between Architecture and Painting, the loss of which has been so disastrous to both Arts."

The work throughout is Pre-Raphaelite in intention, and the pictures of Mr. Joseph E. Southall in particular exhibit a strong indebtedness to the art of Ford Madox Brown. Mr. Southall's favourite medium is the difficult one of tempera. Amongst many delightful pictures we would note the *San Francesco Assisi*, and *Fisherman carrying a sail*. They are patient yet brilliant work.

There is also a true fresco, painted on wet plaster, *Jacob and Rachel*. The figures have scratched outlines and the folds of drapery, &c., are similarly accented. The colours are, of course, somewhat dull in tone, but there is certainly no more appropriate treatment for architectural painting. There are excellent exhibits by Mr. Arthur Gaskin and Mrs. Gaskin, Mr. Charles Gere and Miss Gere, and others.

Mr. Clausen recently observed that the Birmingham School is the only group that is now continuing the Pre-Raphaelite tradition. While such admirable work is being done, we cordially hope that it will continue and flourish.

* * * * *

At the Bruton Galleries, 13 Bruton Street, Bond Street, one may now realise more sensitively than anywhere else the amazing strides recently made in colour reproduction. There are two distinct exhibitions. One is by Messrs. A. & C. Black, of the Menpes Series of Great Masters. These are printed from blocks in three or more colours under the direction of Mr. Mortimer Menpes, whose own reputation as a colourist is deservedly high. After examining carefully the twenty-five reproductions so far published we have the feeling that this method is far more suitable to pictures of heavier tone, such as Rembrandt's *Portrait of an Old Lady* and Bellini's *Doge*, than for landscapes like Constable's *The Hay Wain* and Turner's *Ulysses deriding Polyphemus*. Moreover, it is essentially a process for oil-paintings: it would be impossible to better Reynolds's *Age of Innocence*. The collotype process employed in the Medici Series, exhibited by Messrs. Chatto & Windus in an adjoining room, is on the other hand peculiarly suitable for fresco and tempera. It is impossible to exaggerate the exquisite fidelity with which Luini's *Head of the Virgin*, Botticelli's *Virgin and Child* (Museo Poldi-Pezzoli at Milan), and the five others so far published are copied. It is really the last word in colour reproduction.

Other splendid series from foreign presses are on exhibition, but we have no space to describe them.

Perhaps the exhibit most interesting to architects, however, is the series of original designs by Mr. Herbert P. Horne for the Florence Press types (Chatto & Windus). The working lines are an interesting commentary on the strictly geometrical basis on which Mr. Horne has worked. It will be generally agreed that the type has the great merit of absolute clearness, and it is more—it is beautiful. One feature, however, we cannot accept with equanimity. The capital S takes the form of a capital F. Some modern designers of type have gone back to the long S for lower-case letters, and

used it for the penultimate *s* in such words as *careless*.

This is a slight affectation, but an agreeable one. The essence of good type-design is, however, legibility, and to print CARELESS—CARELESS is, we think, an affectation that will militate against the acceptance of the alphabet. We trust Mr. Horne and Messrs. Chatto & Windus will reconsider this *S* question before the type-founder does his work. Apart from the irritation one would feel in reading a type which necessitated our learning a new and arbitrary alphabet, we feel sure that the lines of the *S* offer decorative opportunities to Mr. Horne that he will do wisely not to ignore. It would be a thousand pities if a type otherwise so beautiful were rendered unpopular by what seems really to be somewhat of a freak, whatever sound Florentine or other authorities may be brought to support it.



THE work of Mr. Ernest W. Gimson is always interesting, even if its motives seem sometimes rather bald, and the exhibition of furniture and ironwork recently held at Messrs. Debenham & Freebody's gave a very welcome opportunity of seeing it in the mass, and not in a few pieces only, as at an Arts and Crafts Exhibition.

We can scarcely give higher praise than to say that Mr. Gimson's furniture comes successfully through the ordeal of a "one-man show."

It was a notable feature of the last Arts and Crafts Exhibition that many of the furniture-makers had so entirely shed the early eccentricities of the revival in furniture design, that some of their work was almost indistinguishable from copies of "period" furniture. Mr. Gimson has, however, maintained his individuality very markedly, and while avoiding vagaries, owes little to the historic English styles. Out of some seventy pieces exhibited only two in unpolished oak have the heavy wooden handles, chip-carved, which were so greatly in vogue some five years ago. The metal fittings are peculiarly delicate, and in particular the little *T* handles used for small cabinet drawers are a lesson in refinement. Mr. Gimson delights in strong colour contrasts; the pale mahogany cupboards on black bases are emphatic but admirable; occasionally the effect is a little garish, but on the whole the mixing of woods shows great judgment. The chairs, &c., in turned ash are simple and straightforward work, but it is in the treatment of large sur-

faces with veneer of sumptuous figure that Mr. Gimson excels. With inlay he is either very economical, using it just to enliven a piece in which the figure of the wood does not play a large part, or lavish in covering the whole surface of small boxes. Economy is, however, the prevailing note, and refreshing it is after the sickening profusion of wide satin-wood bands beloved of mahogany users in Tottenham Court Road. The various burr woods give great opportunity. A writing cabinet in English burr oak was peculiarly fine.

Many workers in Mr. Gimson's field, and not a few of his imitators, fail in their workmanship. Save for a few shrinkages, inevitable misfortunes to everyone, the furniture is technically admirable. We do not like his method of making large drawers. He does not use slips, and in the case of a glazed bookcase and drawers one of the drawers had for this reason split; nor do we like glass in a china cabinet puttied instead of beaded in; but these are small matters. Most of the work is exquisitely finished, and the small mouldings on the raised panels, on which Mr. Gimson so greatly relies, are done with a cleanness quite admirable. Where dovetails show on the tops and ends of furniture, the "endways" of the grain is bound to rise and fall with atmospheric change, and cause a considerable unevenness. We think this an objection to a method which gives, however, the pleasant sense of straightforward construction.

On the important question of price, our impression is that the simpler oak things are slightly expensive, and those in more expensive woods very cheap, but in no case are the prices higher than are ordinarily and properly asked for well-made cabinet work.

When, if ever, the public ceases to be obsessed by its indiscriminate chase of the antique (or generally pseudo-antique), designers and makers of sober characteristic modern furniture will perhaps come into their own. People will then realise that there is a serious school of modern furniture, and that Mr. Gimson has done not a little to create it, and, we trust, make it durable.

Mr. Gimson's ironwork is simple and well proportioned, the punched ornament is refined, and a chrysanthemum motive of one candlestick particularly successful.

Architects have frequently to lament that rooms over which much time and thought has been expended are ruined by the owner's poor taste in furniture. In the course of time laymen may be educated up to the point of having their furniture made for them, to suit their individual requirements, and as part of the decorative schemes of the rooms for which it is required.



OCTAGONAL TABLE IN ENGLISH WALNUT.



SIDEBOARD IN ENGLISH WALNUT. GLOVE AND HANDKERCHIEF BOX IN ENGLISH WALNUT
CANDLESTICKS IN WROUGHT IRON.

FURNITURE BY ERNEST W. GIMSON, ARCHITECT.



DURING the latter part of 1907 the leaded lantern of the church of St. Edmund, King and Martyr, in Lombard Street, was partly obscured from view by scaffolding. The time had come when the attentions of the plumber were needed, as some time since happened with the cognate lantern of St. Nicholas, Cole Abbey. So far, so good: all lovers of Wren's work admit the propriety of necessary repair. The scaffolding has now disappeared, and with it the twelve flaming vases which formed so notable a feature. Inquiry has elicited the fact that these vases were

which the upper four stand look ridiculous without them. When things are taken from their proper place and stored they are forgotten. They become useless lumber, and are liable to be hurried to the "knacker's yard" when someone in authority with a passion for tidiness gets tired of seeing them. We look to Canon Benham, the Rector of St. Edmund's, to deal with this matter strenuously and at once. The cost of repair cannot be so serious as the mutilation of one of Wren's most characteristic designs. We illustrate the spire as it appeared before the dreary business of "restoration" began, so that our readers may judge of the gaiety which the vases added to a very interesting composition.



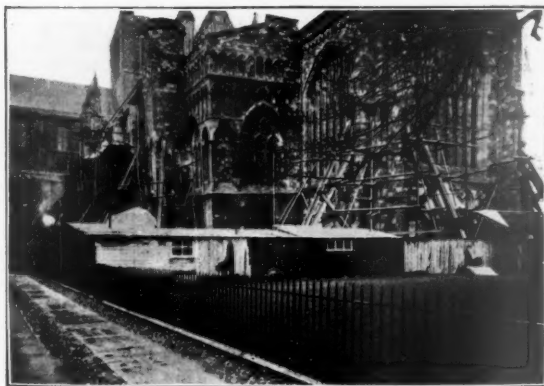
CHURCH OF ST. EDMUND,
KING AND MARTYR, BEFORE
THE "RESTORATION" OF 1907.

in a dangerous condition. They are of wood, covered with lead, and the wood has completely rotted. It seems clear from the fact that there were bolts through the necks of the vases attaching them to the spire that the mischief began some time ago, and that the fear of their unrehearsed descent into the street has not now for the first time been borne in upon the minds of the church authorities. Be that as it may, their removal was essential for the public safety.

We further understand that the pious intention exists to replace them when funds permit. We profoundly distrust this state of affairs. The vases are necessary to Wren's design. The brackets on



THE controversy over the reparation of Winchester Cathedral is one greatly to be deplored. Any effort to repair the ravages of time in our great mediæval and historical buildings seems now to be inevitably causative of a more or less embittered discussion upon the methods of repair and the personal ability and discretion of the technical advisers in charge of the work. It is but a month or two ago that Professor Lethaby's motives and good faith were impugned in regard to the work now proceeding at Westminster Abbey, where, along the north side of the nave roof, a battlement is being substituted for the pierced parapet that Scott erected some sixty years ago. And yet such a sturdy opponent of "Restoration" as Mr. Lethaby was not merely called upon to defend his action or inaction in the matter, but was saddled with the gravamen of a charge of deliberately slighting Scott. The official statement subsequently made effectively disposed of this somewhat puerile controversy. The responsibility for the work rested with the late



THE EAST END, WINCHESTER CATHEDRAL.



CENTRE BAY TO CENIRE VAULT, PRESBYTERY,
LOOKING SOUTH-EAST.



EAST END OF SOUTH AISLE OF
ALDIN CRYPT.

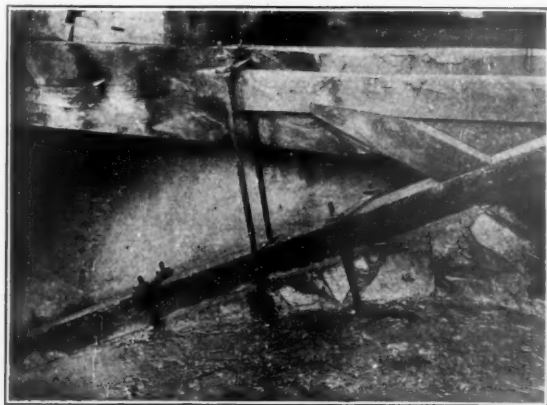
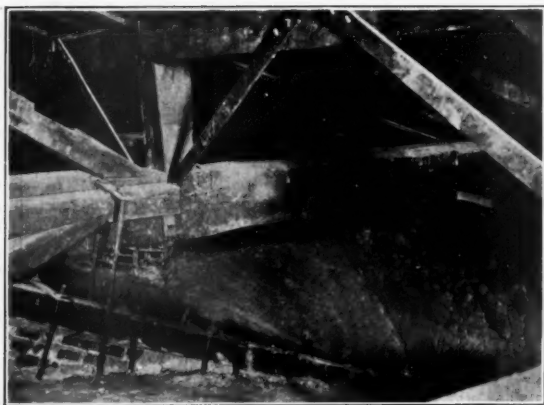


WESTERNMOST BAY, SOUTH AISLE OF
PRESBYTERY, LOOKING NORTH.



CRACK JUST TO LEFT OF WESTERNMOST PIER,
PRESBYTERY NORTH ARCADE, IN CENTRE
ROOF, LOOKING SOUTH.

WINCHESTER CATHEDRAL.



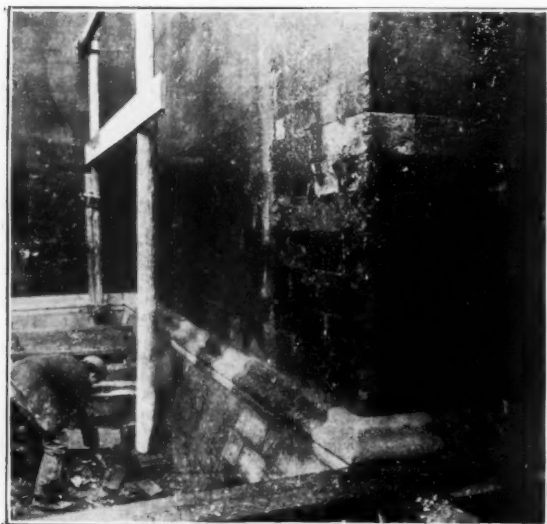
SHOWING VAULTING HUNG UP BY IRON STRAPS TO ROOF TIMBERS
TO PREVENT IT FALLING.

Mr. Micklethwaite, Mr. Lethaby's predecessor; the pierced parapet erected by Scott was in a shaky condition and had to be renewed; a solid balustrade was not only stronger and more enduring, but more economical; and, further, the parapet had originally been a battlement, as can be proved by the testimony of old drawings.

The Winchester controversy has been rather bitter in tone. The Society for the Protection of Ancient Buildings has an old grievance against Mr. Jackson, and from the tone of the letters emanating from the Secretary it is evident that Mr. Jackson's treatment of the tower of St. Mary the Virgin at Oxford still rankles with that body. Mr. Jackson has given some details of the practical advice received from two members of the Society in relation to that very work, and after

reading it one cannot altogether be surprised at some of the comments on the Winchester works officially put forward on behalf of the Society.

Innuendoes anent the professional capacity of Mr. Jackson and Mr. Francis Fox are unedifying in the extreme; and a preliminary discussion as to the relative strengths and merits of cement and lime mortar, when the cathedral was crumbling to the ground, would have been matter for ridicule were the issue not so serious. With the south transept gable overhanging 4 ft., the north transept gable nearly as bad, the vaulting dropping, cracks in the transept walls into which one's arm could be thrust, and the whole east end slipping away from the nave, the condition of things called for immediate action rather than inquiry into



SHOWING REPAIRS TO THE PLINTH.



SHOWING NEW BRICK
FOOTINGS TO THE WALLS

Photos: Graphic Photo Union.

petty details and minutiae, and abstract discussions on matters of opinion.

The two diagrams reproduced show the condition of the old foundations of the Presbytery and Lady chapel, and the new foundations which have been carried down to the gravel bed, twenty-five to thirty feet below the Presbytery floor, or from eighteen to twenty-three feet below ground, and from nine to fourteen feet below water level. The gravel is overlain by a bed of peat varying from three to seven feet in thickness, and this unsuitable stratum has yielded to the pressure of the walls, thus causing the subsidences. The whole of the east end now rests on new foundations, and seems secure, and it is hoped that the underpinning of the outer walls will obviate the necessity for underpinning the interior piers of the Presbytery, which would be a very serious undertaking on account of the Waynfelete and Beaufort Chantries.

The north transept is at present being repaired as far as funds will allow. The gable is cracked and overhangs more than a foot, the side walls lean outwards, and the angles have separated from the rest of the building. At the north-west angle is a great fissure through which daylight can be seen. The vaults are split along the crown and in some parts are dangerously dislocated. As a preliminary the walls have been shored and the north-west angle bonded and grouted, no less than twenty-five tons of cement being got into this comparatively small area. Funds are now needed to carry on the work.

The south transept is in an even more alarming condition, the gable wall overhanging 4 ft. 6 in. It has been securely shored up meanwhile, until funds are available for its repair. It must be underpinned and tied back by an elaborate system of iron rods and girders.

Signs of movement have also been detected in the south choir aisle. The great buttresses incline outwards and will have to be underpinned; the wall behind them rests on the old Norman side wall of the church, which remains perfect in the crypt, and goes down in many cases to the gravel, and will not therefore need underpinning. It is believed that the foundations of these buttresses are shallower, and their weight in such case, so far from supporting the wall, tends to drag it over.

Some idea of the condition of the building may be obtained from the views reproduced in these

pages. Our admiration for the mediæval builders must not blind us to the fact that in several of our cathedrals—as at Peterborough, for instance—their methods of building walls were anything but sound, viewed from a modern standpoint. For this there are excellent reasons, not the least being the difficulties of procuring and transporting suitable material. Such walling as is shown in the right-hand bottom view on page 105 can hardly be considered ideal work, and there is much more like it at Winchester. It is obvious that such walls depend mainly on the mortar for strength, and that as in the course of time the mortar disintegrates the wall slowly diminishes in strength until it becomes crumbling rubbish. Fortunately in the majority of cases a cure can be effected by the new method of injecting cement grout under pressure, thus avoiding demolition and rebuilding. But it is clear that such conditions call for radical treatment, and it is not a question how little to do, but how much may be done without falsification or deliberate alteration of the original work.

In this connection one could have wished that the Society for the Protection of Ancient Buildings had devoted more attention to the Cathedral of Iona. The treatment of this ancient fabric calls for strong reproof, for the work has not been limited to the roofing in of the structure or repairs necessary to fit the place for divine service, but features have been introduced and alterations made which, as pointed out in our first note this month, are neither required nor justified.

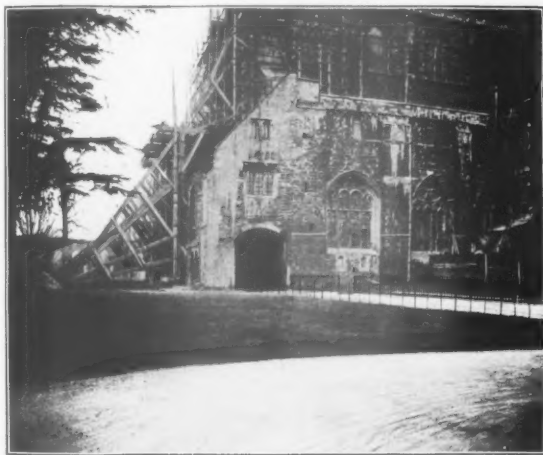


Photo: Graphic Photo Union.

THE SHORING UP OF SOUTH TRANSEPT.

The Principles of Dome Construction.—II.

(Conclusion.)



BEFORE the introduction of reinforced concrete, floors were occasionally built in this country of flat tile arches spanning between the walls or the iron girders. These tile arches were made of three, four, or more layers or rings of plain flat roofing tiles, laid in cement to break bond, and covered in many cases with a concrete to bring the upper surface to a level. The interlocking of the tiles gives a considerable amount of cohesion; the whole arch is strong and light, and owing to the comparative thinness and small rise in proportion to the span, the line of pressure can be located with considerable accuracy in a simple manner.

Occasionally the floors and roofs of tile were laid quite flat. Thus Mr. Charles Fowler, in a paper read before the Institute of British Architects in 1836, describes how he constructed flat terrace roofs on cast-iron girders laid at 3 ft. 8 in. centres, of three courses of tiles, and other roofs up to 4 ft. 6 in. between bearings, at the old Hungerford Wharf and Market. He thought that for clear spans of 3 ft. 6 in. a double course of tile would be sufficient as a roof covering, but that three courses were required if the roof were designed to support the weight of men as well as snow. He laid these tiles in neat cement (probably Roman cement), the tiles rubbed in the cement as a joiner rubs a piece of wood in glue, and emphasised the necessity of unyielding supports, such as cast-iron girders or brickwork, pointing out that wood joisting is unsuitable for the bearings.

This system of tile-construction for arches and domes is a traditional method still largely employed in Spain. In America it has been used on a larger and finer scale for churches and other public buildings, chiefly through the constructive skill of Mr. R. Guastavino, who has brought Spanish methods to the United States, and whose company has executed some very fine works there. The tiles employed by the Guastavino Company are 1 in. thick, 6 in. wide, and from 12 in. to 24 in. long. They are laid in Portland cement mortar, bonded together so as to make a solid mass. Not only are these floors between girders formed of tile arches, but the steel or iron main girders frequently used in large span floors are omitted, and tile main arches substituted for these girders,

steel being only used in the form of ties, well bedded in and covered by the mortar of the masonry or brickwork. Floors built upon this principle have been tested under the supervision of the New York Building Department up to 3,700 lb. per sq. ft. on 10 ft. spans. It is with the use of tiles in dome construction that we are chiefly concerned here.

Fig. 18 shows the section of a very flat dome supporting the floor over the vestibule of the Bi-Centennial Building of Yale University, New Haven, Conn. It covers a circular room 45 ft. in diameter, and the dome has a rise of 2 ft. 6 in. only. With such a large span and small rise the tile arch is in compression on all meridian and parallel sections, and the tie in steel at the support has to take the whole thrust, which constantly increases from the crown to the tie. Its amount can readily be determined from a diagram such as Fig. 14. Let bc to any scale equal the weight

of a part of the dome equal to $\frac{1}{6.2832}$ of the whole of the dome: then ac to the same scale equals the total tension on the tie as explained in the paper previously referred to. (If the weight of the flooring and load be taken at 200 lb. per square foot the tension in the ring-tie at the springing is 245,585 lbs.)

This floor, which looks so daring, is really a very sound and permanent covering for a large space without intermediate support and without girders of any kind.

The dome (Fig. 19) over the Students' Hall in Columbia College is an excellent example of a true dome with a lantern. Though the span is 48 ft. 4 in., the thickness is only $3\frac{3}{4}$ in., except at the base, where it is increased to $9\frac{1}{4}$ in.; it is composed in the main part of three courses of 1 in. tiles set in Portland cement (six courses at the springing). The dome is not a full hemisphere, and there is consequently a ring-tie required at the base if the dome is to be independent of the abutments for resistance to the thrust. Accordingly there is an 8 in. by $4\frac{1}{2}$ in. steel angle round it where it starts from the drum, and there is a 6 in. by 4 in. steel angle ring round the centre eye, which angle also forms a plate for the steel framing of the lantern.

This dome is covered with wood battens or fillets and boarding to carry the copper roof covering. Sometimes, however, such tile domes are covered with porous terra-cotta tiles outside,

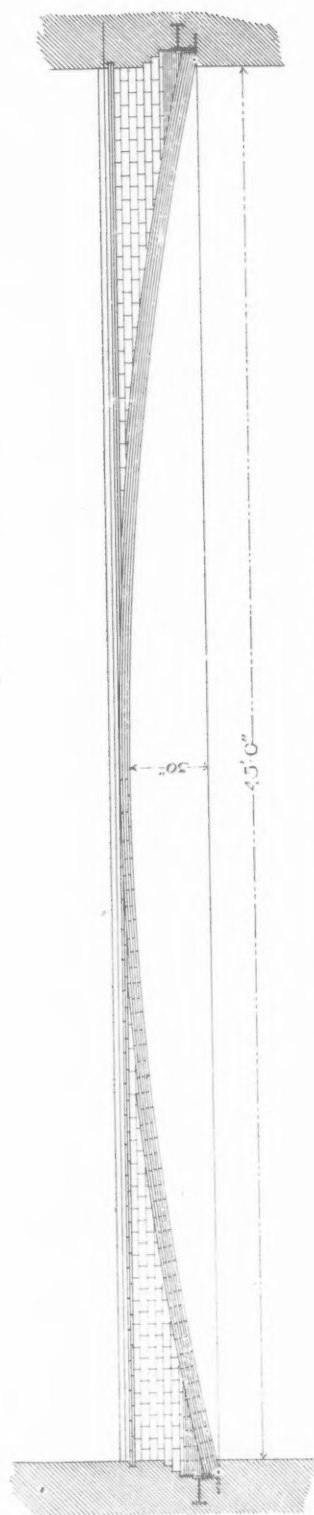


FIG. 18. DOME OVER VESTIBULE OF THE BICENTENNIAL BUILDING, VALE UNIVERSITY.

GRACE UNIVERSALIST CHURCH

LOWELL, MASS.
SECTION THRO' DOME.

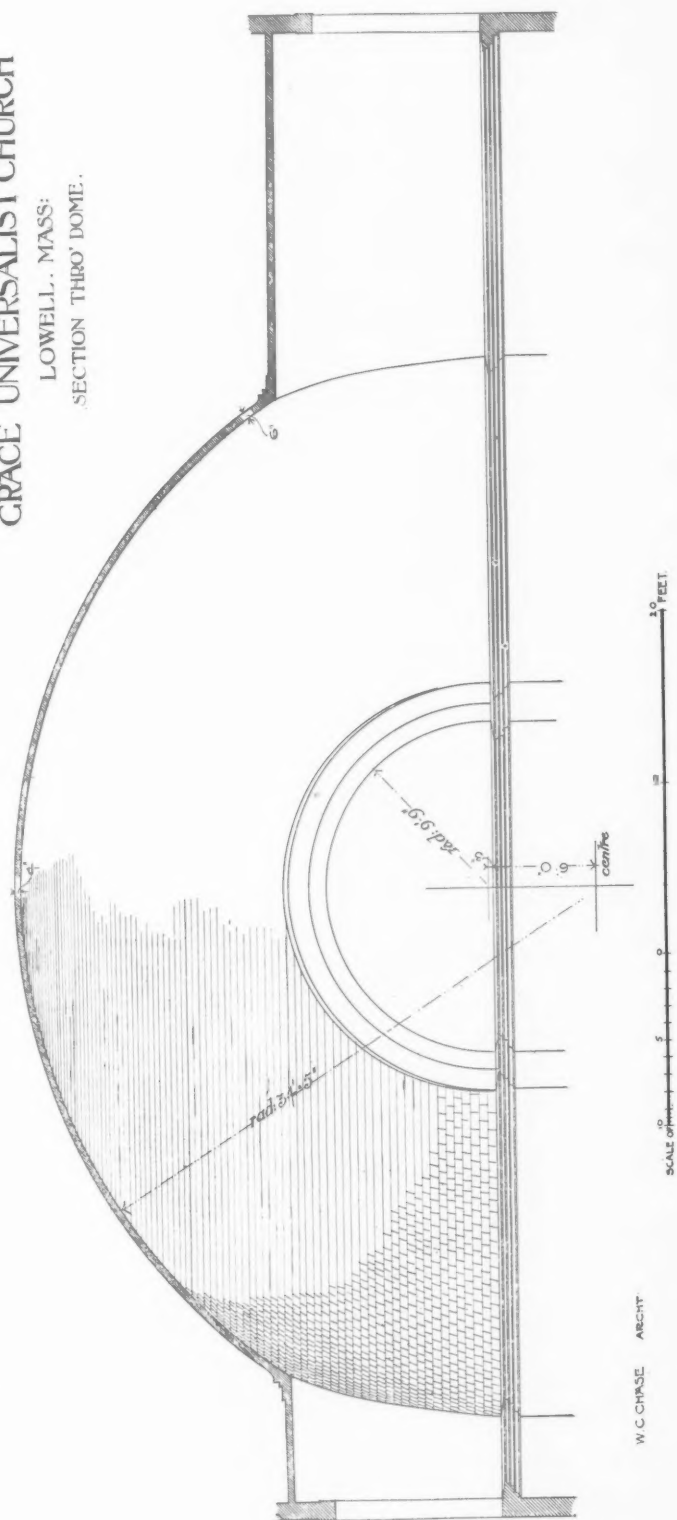


FIG. 20.

DOME. STUDENTS HALL
COLUMBIA COLLEGE.

MCKIM MEAD & WHITE, ARCHITECTS.

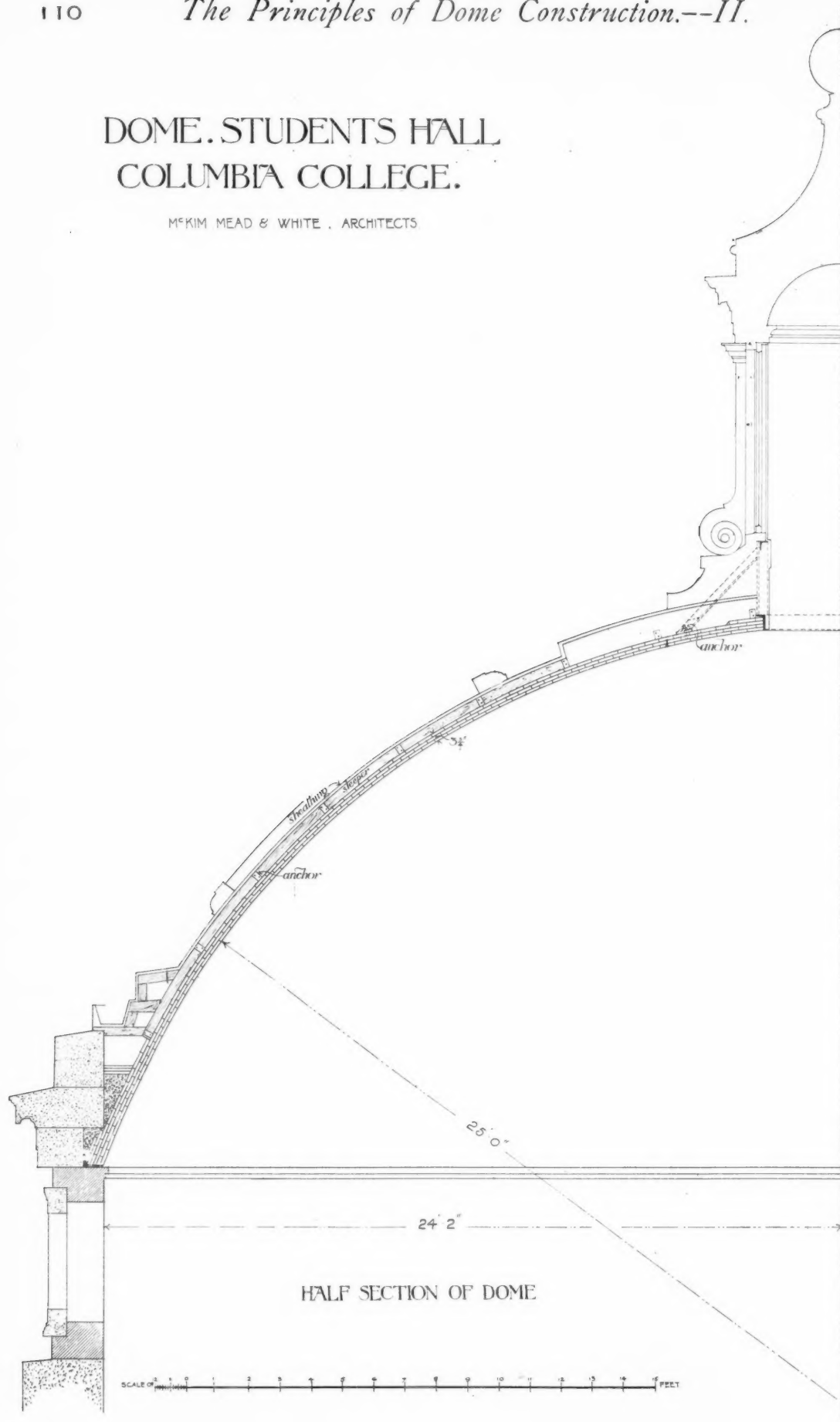


FIG. 19.

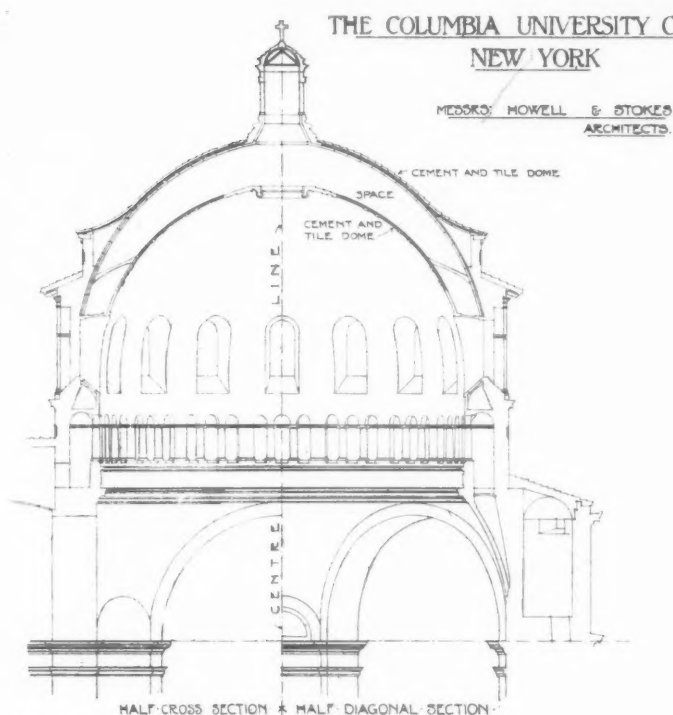


FIG. 21.

and as nails can be driven into this terra-cotta, a copper or marble or other covering can be secured direct to it without the introduction of a perishable material such as wood.

A construction apparently even more daring is the dome of the Grace Universalist Church, Lowell, Mass. (Fig. 20). This has a clear span of 78 ft. 10 in.; it is a true hemisphere, and is only 4 in. thick at the crown.

I have mentioned that the external covering may be made of permanent material, and I ought here to call attention to the decoration of these domes. They offer a splendid field for mosaic work or for painting on a plaster ground.

I can recall a public building in Britain, of a circular plan, the design of which pleased me very much. It appears from the exterior and interior a masterly work in every way, but I was sadly disillusioned on getting into the roof to find that the painted figure-work, itself excellently done on the interior dome which covers the circular auditorium, had no more permanent background than canvas on match-boarding. This great dome seen from below is of thin boarding fixed to light deal timbers, ready for the match of the careless plumber, and a sad contrast to the solid architectural character of the walls, which are massive stone.

Over this wood dome is an iron structure carrying the roof, designed by an engineer whose conception of a dome was that it should be formed of a series of trussed steel girders intersecting at the

centre. The result is a melancholy example of the want of skill and knowledge on the part of both architect and engineer.

Look for contrast (Fig. 21) at the construction of the dome of the Columbia University Chapel (Howell and Stokes, architects). It is a double dome with inner and outer shells, as genuine a piece of constructive design as any of the Roman or mediæval works. These shells, employed apparently less because of the varying requirements of interior and exterior effect than to avoid dampness or condensation of moisture in the exposed situation of the chapel, and to form a covering better able to resist extremes of heat and cold, are 27 in. apart at the base, increasing to 6 ft. above by a rise in pitch of the exterior dome. The inner

shell has a thickness of from $3\frac{1}{2}$ in. to $2\frac{1}{4}$ in., the lower third being in three courses and the upper part in two courses of tiles. The outer shell has a thickness of $6\frac{1}{2}$ in. at the base, decreasing to a thickness of 5 in. in the upper part (five and four courses respectively). It may be interesting to note that the weight of the outer shell is only $104\frac{1}{2}$ tons, or with the roof and lantern $263\frac{1}{2}$ tons; the inner shell only weighs $68\frac{1}{4}$ tons.

A yet larger dome is being constructed by the Guastavino Company. It forms the roof of the Girard Trust Company's Building in Philadelphia; it is almost hemispherical in section and is 101 ft. span. It is to be covered externally with about 5 in. of marble.

The stresses in these tile domes may be calculated by the method given in my paper in the *Transactions of the Royal Institute of British Architects* before referred to. There is, however, a very remarkable fact which I did not specially mention therein, though it follows from the reasoning, namely, that whatever the thickness of the shell of a closed hemispherical dome, or of a dome of less than a hemisphere in section, the unit stresses—the stresses per square inch—are the same for the same radius. If we increase the thickness in any case, we increase the load in the same proportion, so that increasing the thickness does not increase the strength, unless to resist casual loads, or unequal distribution of pressure due to elastic deformation, which the present state of our knowledge does not enable us to deal

with. It is desirable to make domes of a reasonable thickness to withstand these accidental loads, but the great thicknesses of the Roman domes are not required, and will rarely be repeated. When the thickness varies, increased thickness towards the base is of value in diminishing the thrust, just as the use of a lighter material in the upper part diminishes the thrust.

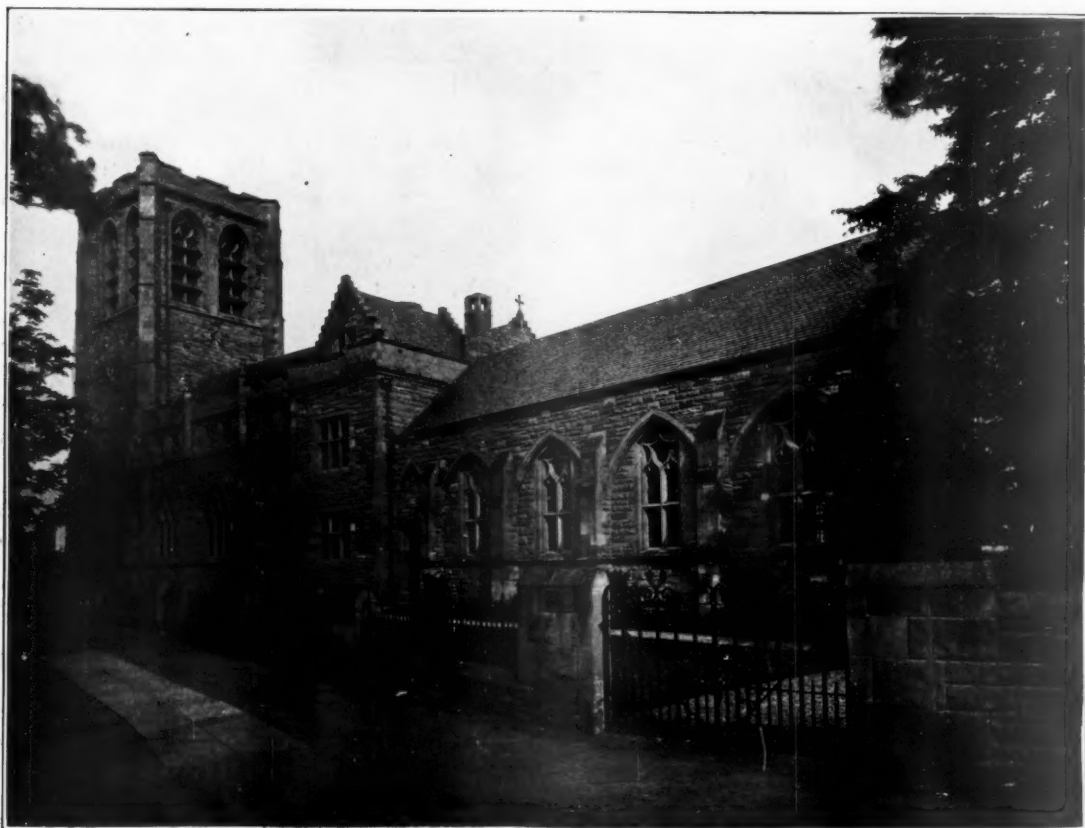
Altering the loading in any part of a dome affects all the parts below that, and does not affect any part above it. Each lower section is independent of the part above for stability; that is, if it is constructed as a solid of revolution, and not as a series of arches. Of course, if it is constructed like St. Peter's, or if the lower part is like Sta Sophia, the arched part depends on the upper part for resistance at the crowns of the arches.

When the architect designs a dome, in general he adopts a form and afterwards considers the stresses in it. It is possible to modify the stresses in domes by either varying the shape or by varying the loading. For instance, in the dome of Fig. 3 he might so alter the shape or curvature of the part below the point of zero stress or the

weight of that part by increasing the thickness or using a heavier material that there would be no stress on the meridians. The thrust at the point of zero stress would continue constant to the base, when it could be taken up by a tie or by the abutment. Domes of metal (ribs and rings) lend themselves more readily to treatment of this kind than masonry domes; but a general knowledge of the effect of changes such as these is of value to the architect. With such a knowledge he may add to the stability of his work without disadvantage; without it he may materially use it in ignorance.

A well-known writer has said that it is as difficult to build a dome that will fall as an arch that will stand, meaning doubtless that the dome is an exceedingly stable form. There are innumerable examples of arches to guide us, and calculation of these is only required for large work. Of domes we have comparatively few, and I trust that no one will be misled by such a remark into thinking that any dome may be erected without the most careful consideration of the problem.

WILLIAM DUNN.



UNITED FREE CHURCH AND HALL, STIRLING. J. J. STEVENSON, ARCHITECT.

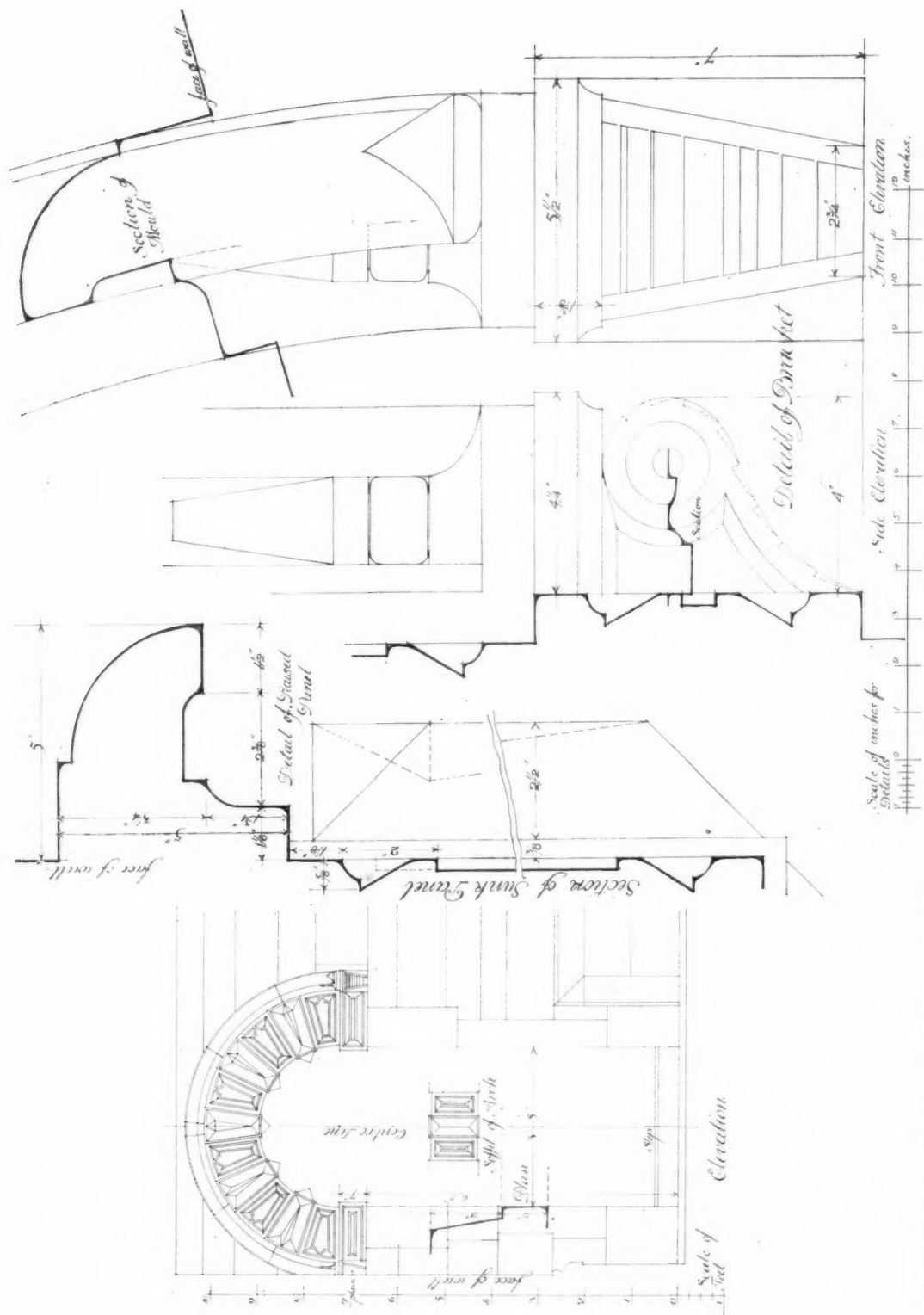
The design included an open crown on the tower not yet built.

The Practical Exemplar of Architecture—XIX.

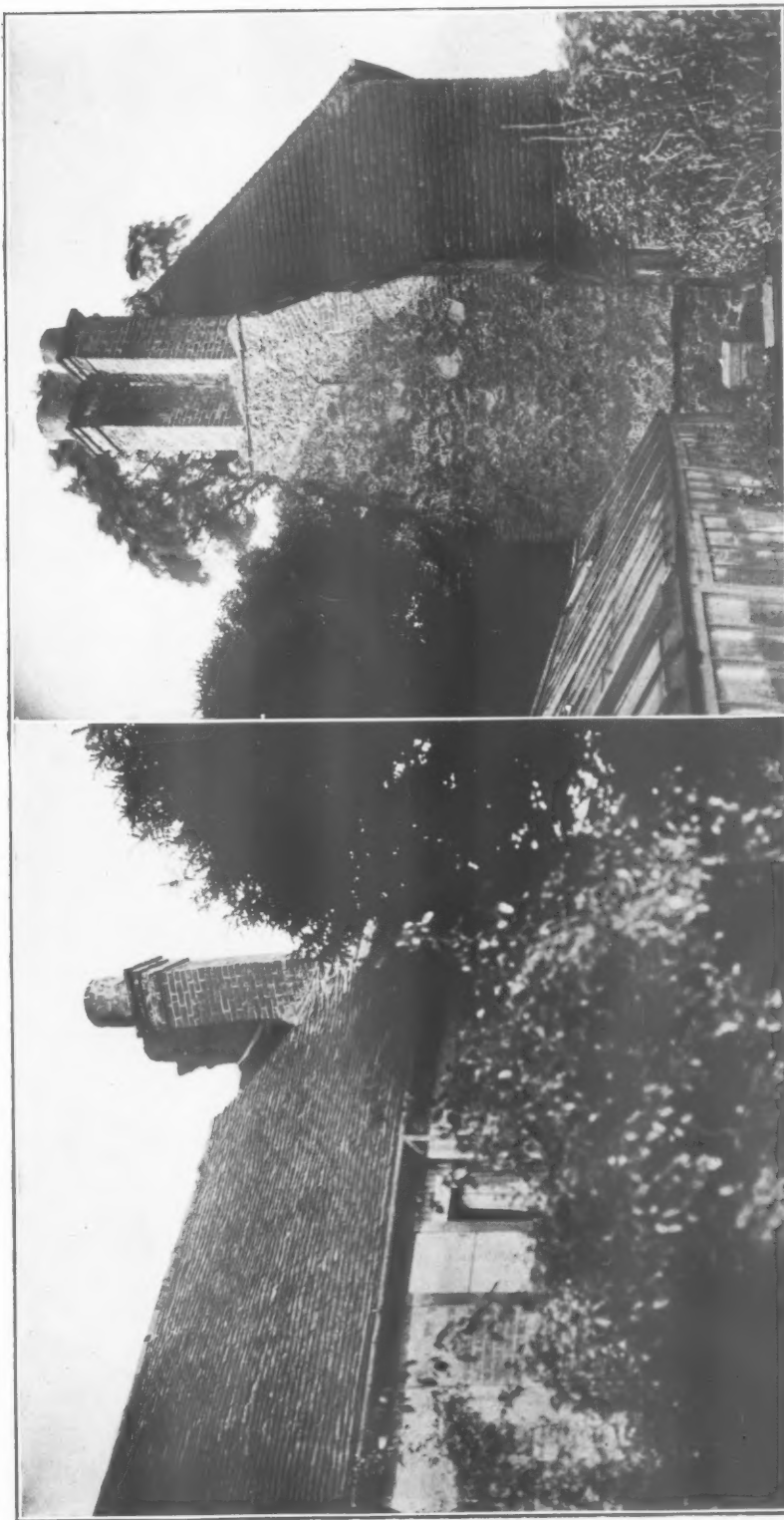


Photo: Arch. Review Photo, Bureau.

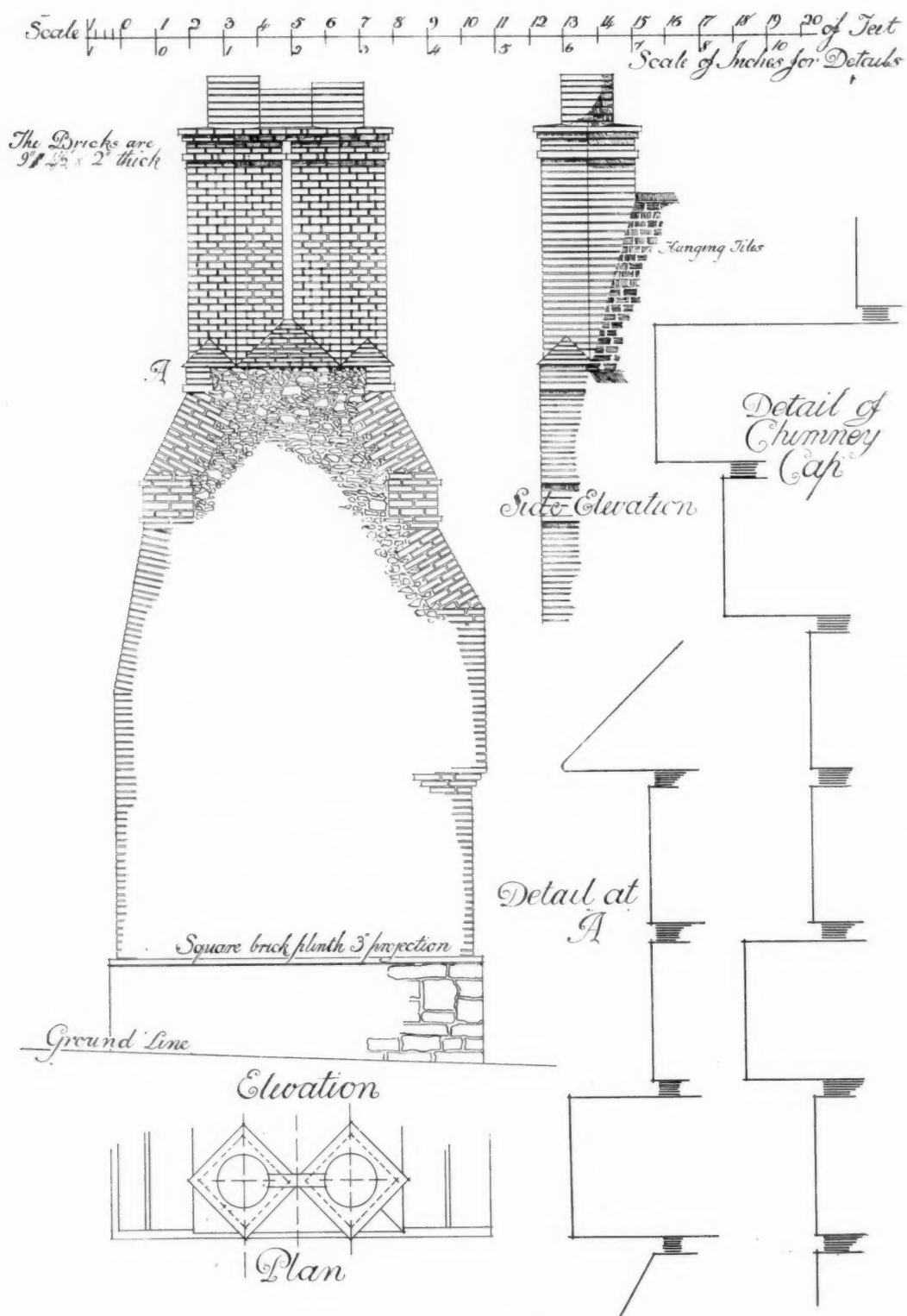
DOORWAY, CLARE COLLEGE, CAMBRIDGE.
VOL. XXIII.—I



DOORWAY, CLARE COLLEGE, CAMBRIDGE. MEASURED AND DRAWN BY G. HERBERT PARRY.



CHIMNEystack, WESTERHAM, KENT.

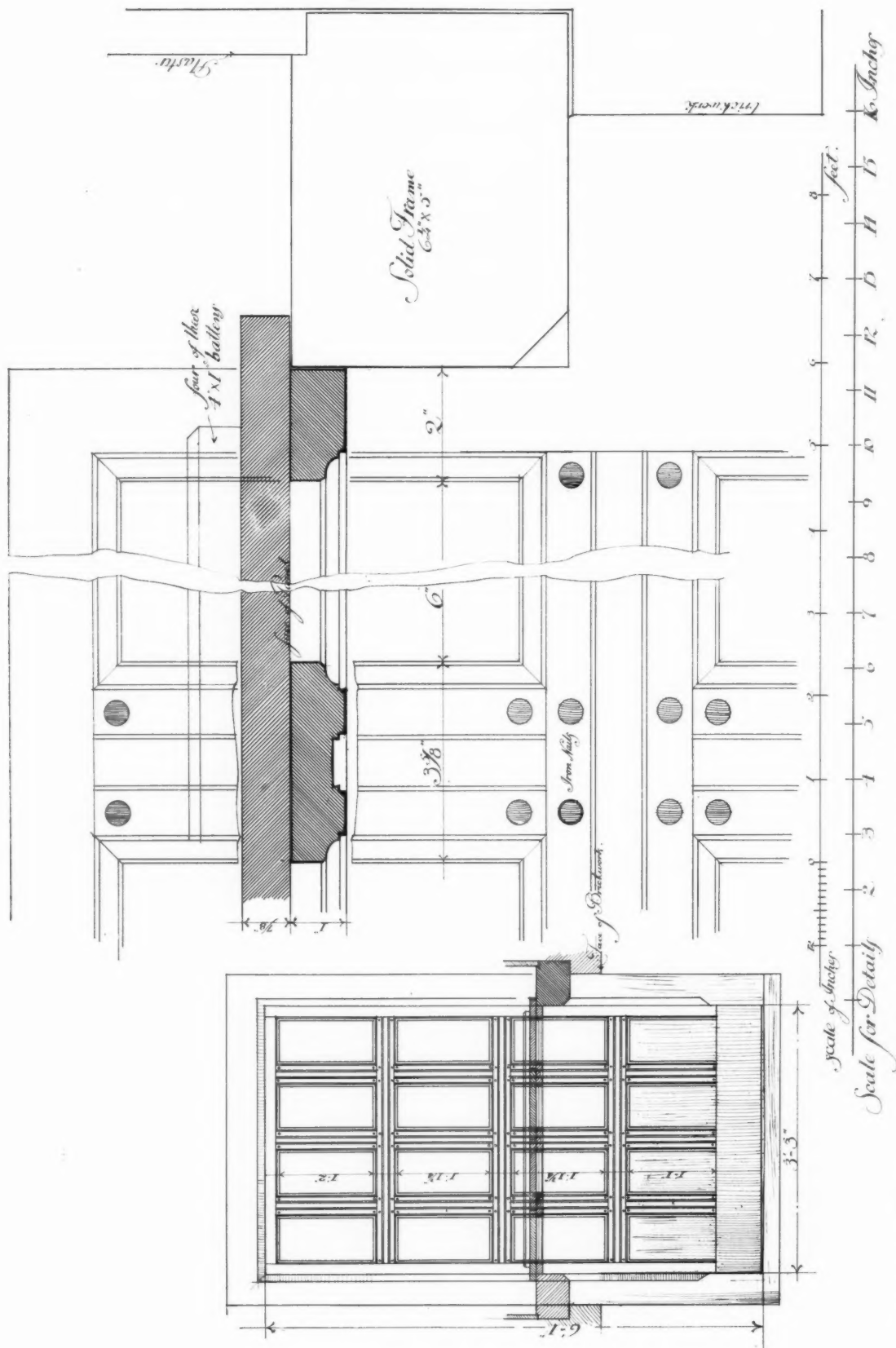


CHIMNEystack, WESTERHAM, KENT.

MEASURED AND DRAWN BY HUGH A. McQUEEN.



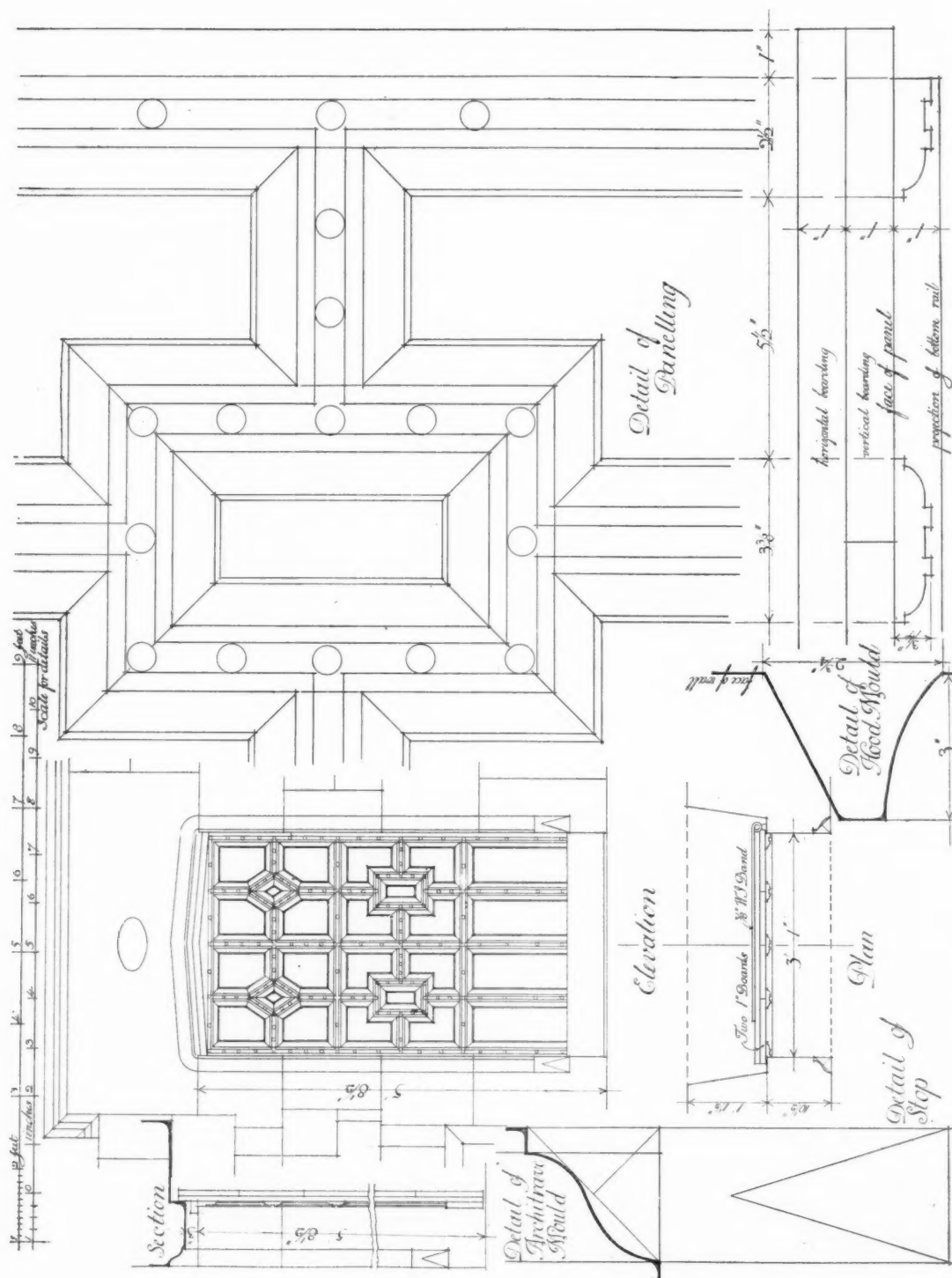
DOOR AT WESTERHAM, KENT.



DOOR AT WESTERHAM, KENT. MEASURED AND DRAWN BY J. M. W. HALLEY.



DOOR AT SYKE HOUSE, CLIFCKHEATON, YORKSHIRE. CIRCA 1600.



DOOR AT SYKE HOUSE, CLECKHEATON, YORKSHIRE. MEASURED AND DRAWN BY W. MORTON.

Morden College, Blackheath, Kent.—III.

(Conclusion.)



THE chapel vestibule occupies the centre of the east wing, and has rather richer detail than that to the main entrance immediately opposite. It is panelled and seated both sides, though the north side has been somewhat altered. The arches over the entrance to the chapel and from the colonnade are also carried out in woodwork with spandrels and key blocks excellently carved. Those to the chapel doorway are particularly good, and are considered worthy of large-scale illustration. The door itself has also well-carved panels, of which details are given.

The chapel was consecrated and opened in 1700, the ceremony being performed by Dr. Spratt, Bishop of Rochester, in the presence of Dr. Tenison, Archbishop of Canterbury, and an anthem was rendered by the "singing boys of the Collegiate Church of Westminster."

The doors open under the organ-loft, which is reached by a stair from the vestibule, and the altar-table faces one on entering the chapel. The loft is supported upon square pillars, the carved panels on the fronts of which are the least satisfactory parts of an otherwise good piece of work. During recently completed alterations the centre portion has been brought out on well-designed brackets to

form a seat for the organist. This in no way spoils the effect, but is in fact an improvement from the practical as well as from the artistic standpoint.

At the same time the whole of the oak-work, formerly varnished and dark in colour, not only in the chapel but elsewhere, was cleaned, a fact one may be permitted to regret. The colour was much richer and the whole effect of the chapel more comfortable and satisfactory before, in the judgment of the writer. The small and ugly organ which occupied the gallery has been removed, and one more worthy of its position has recently been acquired.

The whole of the interior is panelled to a height of about eight feet, but at the east end the reredos and panels at sides are carried higher, the latter being finished with pediments with cartouches bearing arms and pendent swags of fruit and flowers, the latter somewhat thin and disconnected in effect. The arms of Morden are on the north, and those of Brand on the south side. The reredos itself has a broken pediment with the arms of England, from the cartouche bearing which depend similar swags to the others. Some well-carved cherub heads fill the space left by semicircular-topped panels below. On the wall over the altar-piece are hatchments bearing the arms of Morden and Brand.



THE CHAPLAIN'S HOUSE.



DETAILS OF THE COLONNADE.

The altar-table is of good design, inlaid on top, and the rail with its twisted balusters is worthy of detailed study.

In a vault beneath the altar rest the remains of Sir John and Dame Susan Morden; remnants of the banner carried at his funeral are preserved in a glass case near the pulpit. The label upon the case states the funeral to have been on the 6th September 1708. This, however, was the date of Sir John's death, at the age of 85 years, the interment taking place on the 20th "about 9 o'clock in the evening." The service was performed by the chaplain, the Rev. Samuel Asplin, in accordance with the founder's will,

"without pomp or singing boys, but decently."

The records of the funeral are interesting, one mentioning that it was attended by Sir John Vanbrugh as Clarencieux King-of-Arms, accompanied by the Somerset Herald and Rouge Dragon Poursuivant, though another account says that "the Somerset Herald attended as deputy for John Vanbrugh, Esq."

The pulpit is of good general design, octagonal in form, with a large sounding-board over, the sides being inlaid with various patterns and the balusters to the pulpit stair are good examples of turnery. Close pews are ranged on each side of a stone-flagged central aisle, and the walls above the panelling are plastered. Square-edged ribs and panels alone relieve the plainness of a segmental ceiling.

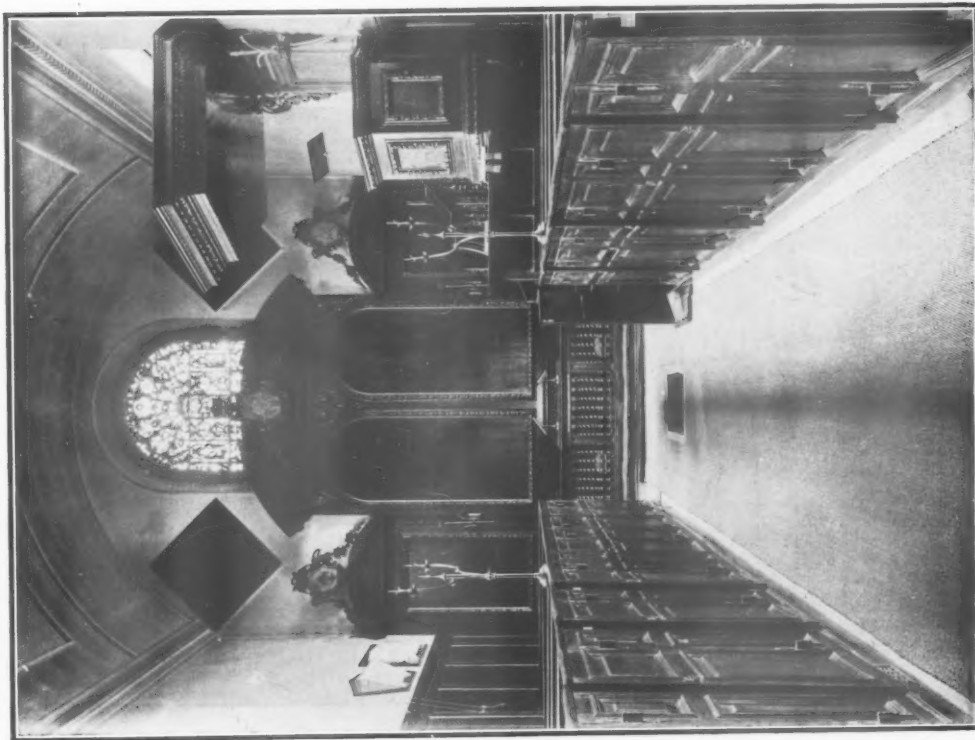
The east window of stained glass was given by a former trustee in 1850, and appears to be a collection of fragments.

The other windows are of a type associated with the stair windows of the early nineteenth-century "jerry" builder.

The exterior of the chapel is by no means beautiful, and the vestry



Photos: Edwin Gunn.

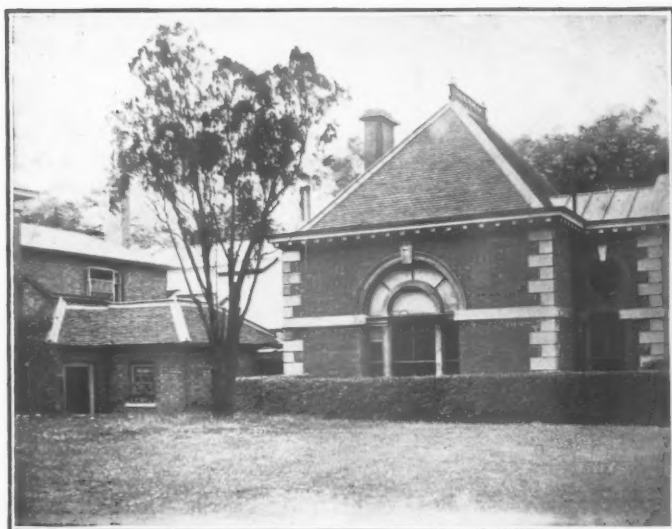


Photos: Percy Green.

EAST END OF THE CHAPEL.



THE CHAPEL DOORWAY.



THE KELSALL LIBRARY, FROM SOUTH.

Photo: Percy Green.

and other buildings are mean, ugly, and of comparatively recent erection. The elevations other than the west front are of the simplest, possessing, however, a certain quiet dignity not unsuitable to the building.

The dwellings of members are of little interest internally, though many contain interesting family portraits and engravings, as well as in some cases *objets d'art* and curios from other lands, the property of the members who occupy them.

The modernising of the chaplain's house has left little work of architectural interest, but the present chaplain, the Rev. Henry Lansdell, D.D., M.R.A.S., F.R.G.S., whose travels in Siberia and the East have given us much unprejudiced information about these little-known parts, has a very interesting collection of objects of artistic and historic interest gathered together during his journeyings into every country of Europe and Asia.

The treasurer's house has likewise been altered, and again recently converted into an infirmary, which is now in charge of a staff of trained nurses.

The dining-hall is a modern building, erected 1844-5, by Hardwicke, and is only remarkable for the portraits of the founder and his wife which hang therein. They are both from the brush of Sir Peter Lely.

[AUTHOR'S NOTE.—It may be well to state that no sufficiently conclusive proof exists of the reverse of fortune said to have been suffered by Sir John Morden, but the tradition given by old writers has been mentioned whether accurate or not. The bringing of stones for courtyard walks from Aleppo would involve bringing them long distances on donkeys' backs to the coast, as has been pointed out to the writer by the chaplain, Dr. Lansdell, so that this must also be taken as doubtful, though mentioned as a fact by several writers. It may also be noted that Kyp's view shows a low wall in front of the building, evidencing the intention to build this from the first, even if, as inspection leads me to believe, the wall now standing is more recent in date than the building.—T. F. G.]

The Kelsall Library, by the same architect, was erected in 1860 with money left for the purpose by Charles Kelsall, Esq., son of a former tenant; he also bequeathed his books, drawings, and engravings as the nucleus of the present collection, together with a portrait of his father by Wheatley, which hangs in the library. The college library, begun with a donation of £60 from Henry Smith, Esq., and Thomas Jackson, Esq., in 1844, was added to the above.

The recent additions include a billiard-room from the designs of the present architect, Mr. Alfred Griffin, F.S.I., in the angle formed by the dining-hall and Kelsall Library, and various other reconstructions have been undertaken with the view of

making the buildings more in accordance with modern ideas of comfort.

Near the heating apparatus is the old stable originally used for the reception of the horses of trustees on the day of the annual visitation, but a floor has been inserted at the springing of the roof which hides its interesting framing. In the kitchen garden remains a small alcove in brick covered with a semi-dome, which has been turned into a summer-house, and an interesting wrought-iron cresting may be seen over the door to the chaplain's pleasure-garden.



Photo: E. W. M. Wonnacott.

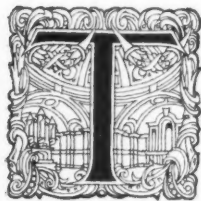
THE SUN-DIAL ON THE NORTH WING.

The burial-ground has long been disused, but contains the graves of a number of men, members of the college, who had in their most prosperous days held prominent positions; among these may be mentioned William Pallard, British Consul in Spain, died 1780; Captain Samuel Ball, Com-

mander in the Carolina trade, died 1782; Joseph Lane, whose father was Lord Mayor of London in 1693, died 1773; Rev. Moses Brown, chaplain of the college, also playwright, poet, and political pamphleteer, died 1787.

T. FRANK GREEN.

The Royal Institute Prize Drawings, 1908.



HE drawings at the Alpine Club in the R.I.B.A. Annual Students' Exhibition exceed in quality and quantity those of previous exhibitions during the past decade; so great indeed is the quantity that a few strainers have been crowded out, and these are hung on the walls of the steep staircase, and thus are scarcely noticed by visitors. One feels that the Hanging Committee were unwise in selecting such a small room to display such a quantity of drawings.

To the lay mind the first impression of the room must suggest almost Babylonian confusion, or at least an active battle of the styles in which neither side has gained the minutest advantage. The drawings do not show up well, and it requires considerable industry to pick out the winners. Undoubtedly the great coup of the year has been the capture of the Tite and the Soane prizes by one competitor. Both his designs show the influence of training in a French atelier. His design submitted for the Tite Prize is undoubtedly the best conception in the room. Advantage has been taken of the steep hillside for the formation of the auditorium, and one feels instinctively that the restoration of the Tiberian Island has been selected as the motif for the general conception. Garnier's Opera House supplies other details, and working inversely from the conception to the details one traces various classical elements which have been transposed to suit.

Although this design is grand in the conception and modelling and speaks well for the sound methods exercised by the French masters in design, it cannot be said that the student has selected the right classical element in every case to produce a thoroughly convincing design.

The same author's design for the Customs House clearly shows the same teaching. There is a sense of oneness in the main block contrasted by an uncouth tower placed in juxtaposition. The plan is "bitty," and lacks the breadth of planning advocated by Durand, and suggests almost a drive through rather than a complete building. It is evident the massing of the building has been designed in elevation and not in perspective, and

no sound motif was taken for the general mass. The application of ornament is good, direct, and symbolic. How well it is suited to the purpose of the building can be seen by comparing the ornament displayed by the other designers who have used the everlasting, or rather ever-green, laurel, swag, and festoon. Shipping and Commerce are represented by figures and the rostra of Roman galleys. To sum up, this design is not convincing, but the finely rendered detail drawing is the best drawing in the exhibition.

The "medal of merit" design is by far the best of all the designs submitted for the Soane Medallion. The composition is good, and the tower placed symmetrically dominates the main mass. There is a strong Dorian motif in this Astylar design. The plan is excellent, and the set only lacks the rendering displayed by the winning set. The tower is far ahead in conception of all the towers in the exhibition, and in seeing it one recognises the inevitable failure of those competitors who placed on their designs domes which would serve no useful purpose. This design has also been influenced by French training, and in future no doubt its results will become more apparent.

The third design in order of merit submitted for the Soane, which receives "honourable mention," is very well massed, and the author has displayed great care in the disposition of the elements selected, but he fails miserably to understand the true architectural spirit of these elements, and there is a strong feeling of Genoese rococo detail, especially in the sectional drawing.

The Pugin studentship drawings are exceedingly clever and very numerous, but they are hardly in keeping with the gothic tradition associated with this well-known Bursary. A word might be said for the French method of rendering the shadows on elevational drawings, emphasising the design and making it quite clear to the lay mind what the design means. In the early part of the nineteenth century nearly all the best English architects rendered the shadows on their drawings, and it is a matter of regret that steps are not taken by the various educational bodies to ensure this important branch of draughtsmanship being taught.

A. E. RICHARDSON.

The "Morning Post" Office, London.

Mewès and Davis, Architects.



THE problem in planning this building was a difficult one, the site being triangular, which allowed lighting from three streets, but necessitated having a central lighting well within the building, the only other light and ventilation being obtained from an enclosed area, around which on the various floors the lavatories are grouped, thereby keeping the whole of the plumbing work out of sight. Other difficulties were many, as the building being of the "warehouse class," and coming under the Factory and Workshops Act, the basement had to be isolated from the other portion of the building, having its own entrance and escape exit from and to Wellington Street, internal communications from all floors, however, being allowed by an unenclosed lift in the enclosed area. The basement is used for printing and paper storage, and the sub-basement, about thirty feet below the pavement level, for the foundation to the printing machines, and the boiler-house, &c. A large lift recessed within the building in Exeter Street communicates with the paper stores.

The building being steel-framed throughout, it was thought desirable to form special grillages to carry the walls supporting the printing machines, and to so cantilever the same that no vibration can be transmitted to the steel columns which carry the building. The basement walls, which were formed in concrete, vary from eight feet to twelve feet in thickness according to their height; the backs of the walls are covered with asphalt, which is carried under all the floors and grillages and over the vaults, thereby making the basement impervious to damp, and a sump, connected to the drainage system, was made to relieve the horizontal asphalt from any water pressure. The whole of the fireproof floors, the roof, and the dome were carried out by the Columbian Fireproofing Co., Ltd., in reinforced concrete on the Columbian system.

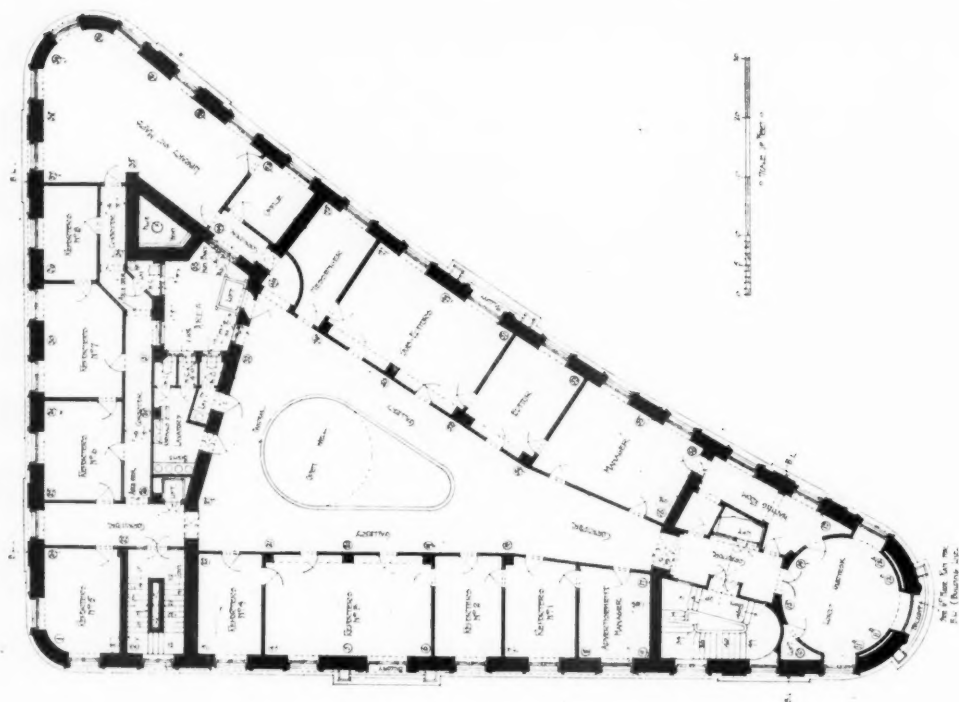
The main entrance to the offices was desired from the Strand, and this corner of the site being

a rounded angle, a circular vestibule was formed there, giving easy access to the advertisement hall, which chiefly occupies the ground floor, and to the main staircase and the office lift. The portion of the ground floor facing Exeter Street is used by the cashier and the publishing department. The printed papers are delivered to this floor from the printing-room in the basement by two unenclosed lifts in the enclosed area. The advertisement hall, which has an entrance both from Aldwych and Wellington Street as well as from the Strand, has been simply treated in Austrian oak panelling, slightly waxed polished, this work being executed by H. H. Martyn & Co., Ltd. The columns are in "stuc plaster" imitating marble; inside them are steel stanchions encased with concrete. The pedestals are marble, as also the floor.

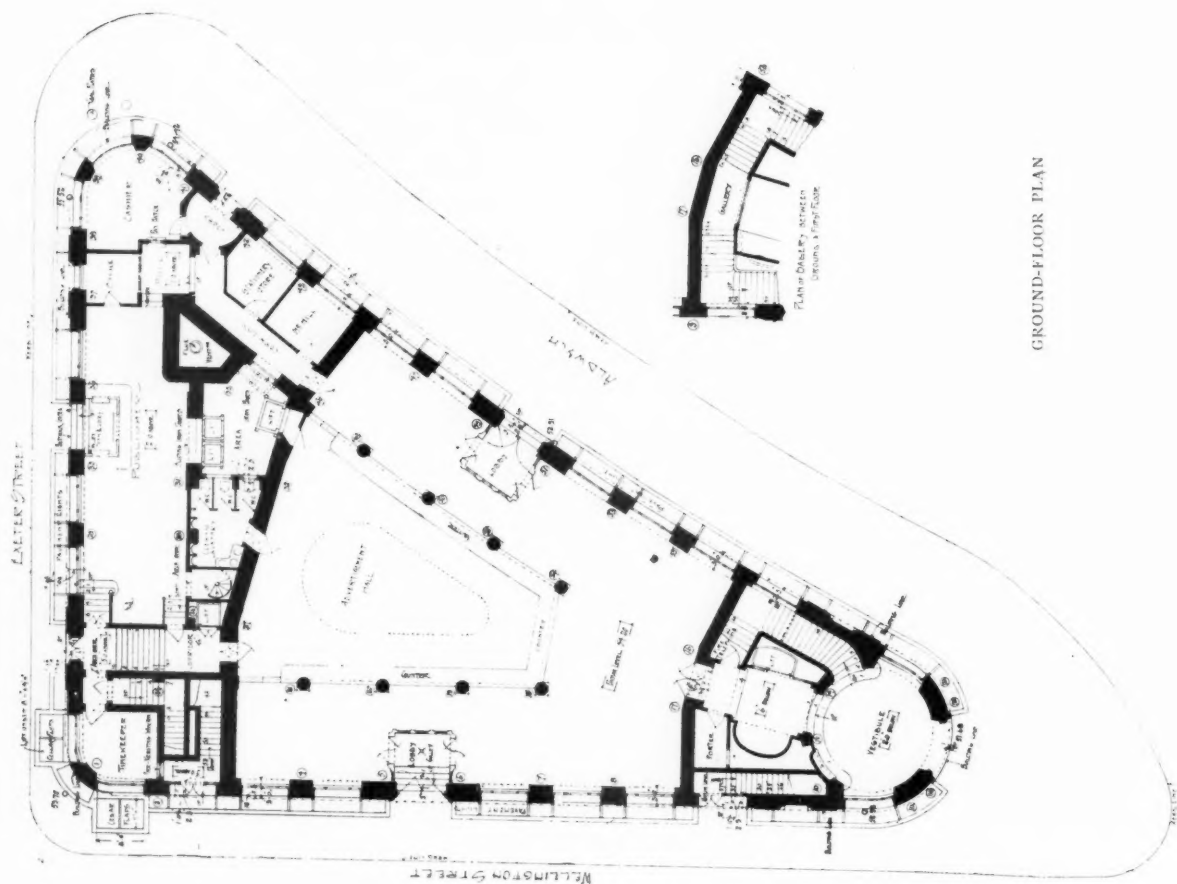
The first floor, used by the editorial staff, is arranged around an open central well over the space occupied by the clerks in the advertisement hall, which gives an imposing effect to this floor. The second and third floors have been planned as offices to be let to the public, and are separated from the other parts of the building by fire-resisting materials. The fourth and fifth floors consist of the composing and readers' rooms, and the foundry, where the plates are cast, and when ready for the printer they are sent down two unenclosed lifts in the enclosed area to the "bruising-room" adjoining the printing-room, where they are accurately shaped, cooled in water, and sent to the machines.

The façades have been built in "Standard Grey" Norwegian granite, supplied, executed, and carved by A. & F. Manuelle. This was worked in Norway from drawings, the carving being done in Aberdeen. The design is a modern rendering of Louis Seize, and it has been the architects' aim to get a simple, dignified, and well-proportioned building. The dome is in copper, and the roofs are covered with green Westmoreland slates.

The whole of the large metal sashes (of special section) and opening gear on the ground floor of the building were made and fixed by J. L. Howard and Co., Charing Cross. The collapsible gates, external glazed iron doors, window guards,



FIRST-FLOOR PLAN.



GROUND-FLOOR PLAN.



Photo: Arch. Review Photo Bureau.

GENERAL VIEW FROM ALDWYCH.

*Photo: Arch. Review Photo. Bureau.*

GENERAL VIEW FROM THE STRAND.

grilles, gun-metal handrail, frames, gratings, and desk signs were also carried out by J. L. Howard & Co.

The whole of the electric light wiring was carried out by Strode & Co. on their improved steel conduit system with galvanised steel-drawn conduits. Strode's patent flush switches have been used throughout, and a feature of the installation is the main switchboard designed and constructed by them, which controls the whole of the lighting and power circuits. Strode & Co. also

carried out the electric bells and special system of fire alarms, the wiring of the electric clocks, and the gas supplies.

The St. Pancras Ironwork Co., Ltd., supplied the balcony railings; and the plumbing contract was entrusted to Mellowes & Co.

The general contractors were the Waring-White Building Company, Ltd., and the contract was signed for the sum of £129,279, which has not been exceeded, and the work was carried out expeditiously.

THE "MORNING POST" OFFICE, LONDON.

MEWES and DAVIS, Architects

SELBY AND SANDERS, Quantity Surveyors.

F. EVERED, Clerk of the Works.

THE WARING-WHITE BUILDING CO., LTD., General Contractors.

SOME OF THE SUB-CONTRACTORS.

ARCHIBALD SMITH & STEVENS, LTD., London.—Lifts.

SULZER BROS., London.—Heating.

A. & F. MANUELLE, London.—Granite.

H. JOHNSON & SONS, Liverpool.—Plastering.

MELLOWES & Co., London and Sheffield.—Plumbing.

H. H. MARTYN & Co., LTD.—Oakwork.

COLUMBIAN FIREPROOFING CO., London.—Floors, &c.

STRODE & Co., London.—Lighting, Electric Bells, Gas Supplies, Fire Alarms.

HOWARD & Co., London.—Casements and Gates.

SHAW'S GLAZED BRICK CO., Whitekirk, near Blackburn. — Glazed Bricks.

ST. PANCRAS IRONWORK CO., London.—Balcony Railings.

A. W. ALLARD & Co., London.—Slating.

POUPARD FILS, Paris.—Copper Dome.



DETAIL OVER DOOR IN ALDWYCH.



Photo: Arch. Review Photo. Bureau.

THE VESTIBULE.



Photo: Arch. Review Photo. Bureau.

LIFT DOOR IN VESTIBULE.



Photo : Arch. Review Photo. Bureau.

DETAIL OF PRINCIPAL ENTRANCE.



Photo. Arch. Review Photo. Bureau.

ENTRANCE DOORWAY FROM THE PRINCIPAL ENTRANCE
TO THE ADVERTISEMENT HALL.



Photo: Arch. Neri. Photo. Burzati.

THE ADVERTISEMENT HALL.

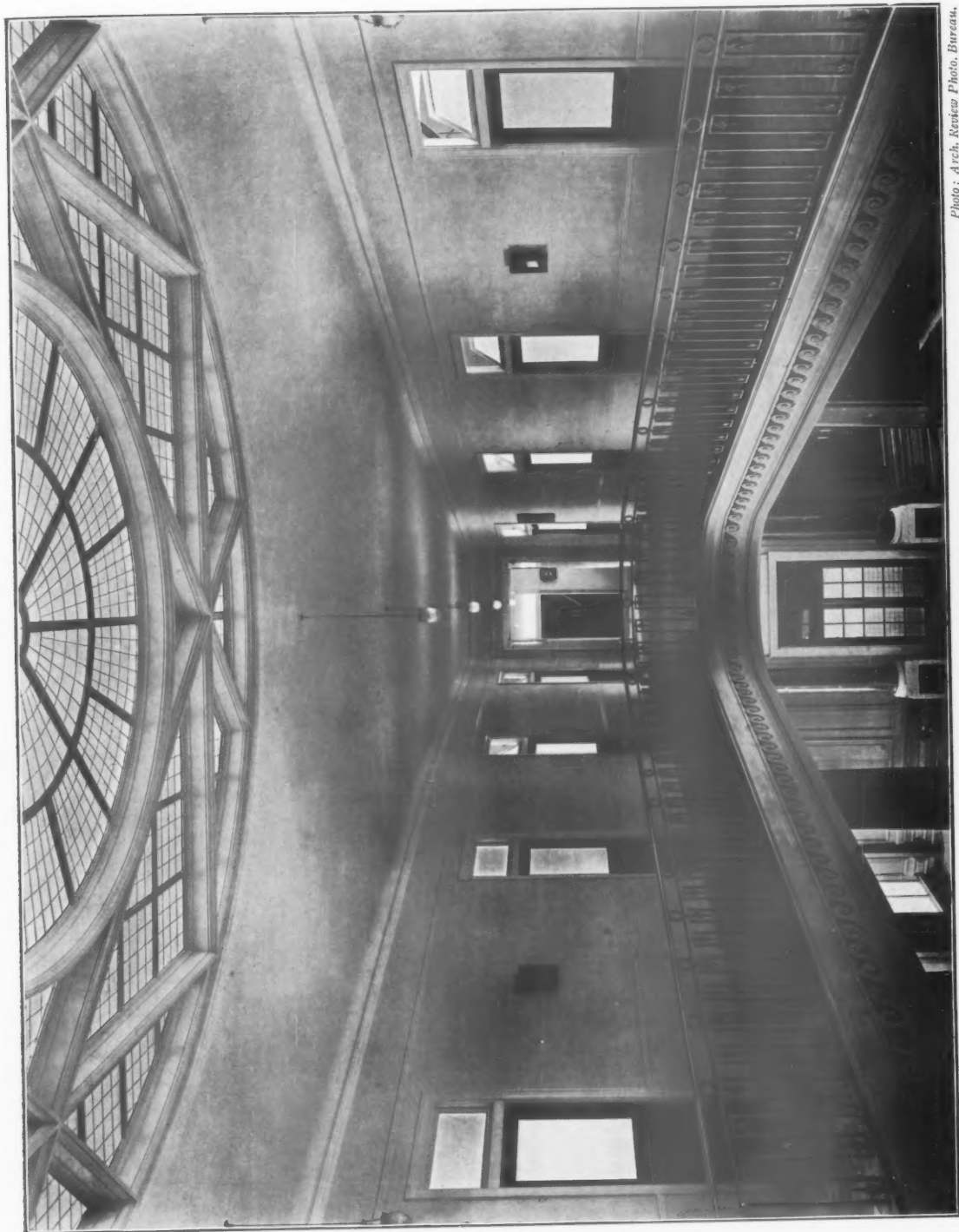


Photo: Arch. Review Photo. Bureau.

THE EDITORIAL CORRIDOR: FIRST FLOOR, SHOWING WELL OVER ADVERTISEMENT HALL.

Correspondence.

HERALDRY AS ART.

TO THE EDITOR OF THE "ARCHITECTURAL REVIEW."

SIR,—In your review of "Heraldry as Art" there occurs a suggestion to which, if you will allow me, I should like to refer in the interest of art workers and students whose concern with the subject is a practical one, and for whom the book was mainly written. Doubtless it would be preferable if heraldic descriptions were written in the vernacular, as is the practice in foreign heraldry; but whether or no the vulgar tongue was so employed in this country to any appreciable extent is of little moment for practical purposes.

It is easy to devise possible improvements in a system that has passed under so many influences. I have myself deprecated its extravagances, but such theories do not help actual art work. Now, if it is desired to ascertain or verify the arms of a person or of a corporation, or to identify the shield of arms on a carving, for instance, books of reference must be consulted, and these, wonderful to say, are written in the much-contemned heraldic language or "jargon," and have been so ever since printed books existed!

Therefore emphatic protest must be made against statements that may mislead students into neglect to acquire the working knowledge of the "jargon" which is, in fact, indispensable. I take it that we all desire to improve the treatment of heraldry in the applied arts, of which architecture is the mother; and I venture to think that no permanent good comes of indiscriminate denunciation of what one dislikes, that "stamping on" that I am recommended to employ against the use of tincture lines, a system to which I object in general, but which is not without advantage on occasion, to distinguish contiguous spaces from each other, or to give "colour" in the sense in which a sculptor uses the word.

With regard to the Garter Plates which are so admirably reproduced in Mr. St. John Hope's excellent work, I have frequently alluded to them elsewhere, and yield to no one in my admiration of the best of them. For though by no means equal in execution to the earlier sculptures, and of very different degrees of value among themselves, they are still the best examples of heraldry in colour, in extent as a series, and in variety, that we have. I would gladly see their qualities adequately dealt with, by way of explicit criticism and appreciation, rather than by the indiscriminate praise that is usually, and easily, given them.

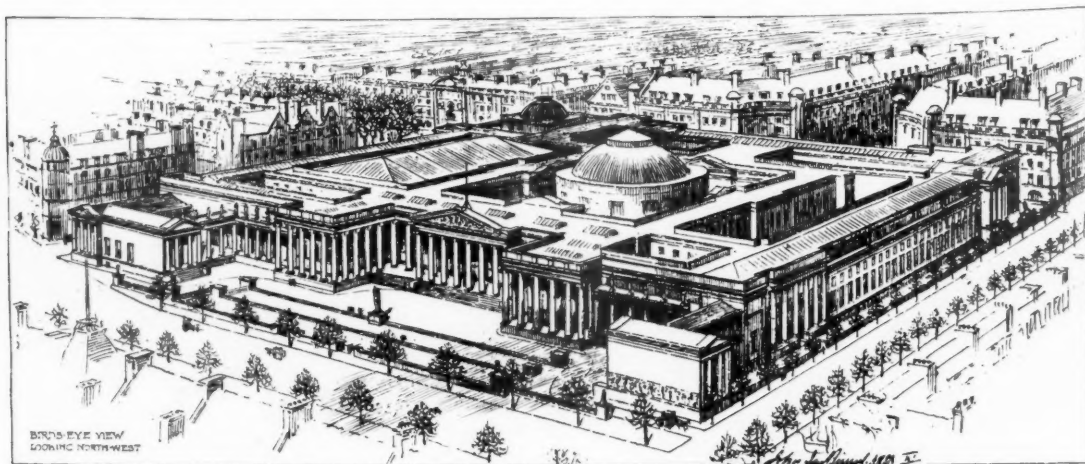
Improvement in the general level of heraldic work must be gradual to be effective, and it cannot be obtained by drastic methods which are so out of touch with ordinary requirements as to tend to deprive the art worker of his market, or by substituting a copy of what may prove to be an incongruous style in place of an improved rendering of a later and more suitable one. There have been too many copies of badly understood fourteenth-century heraldry flung into inharmonious surroundings. If, however, attention be directed to the principles on which the best mediæval and other work is based, the artistic principles that underlie all good work, independent of style or period, we shall be on sounder ground than if we follow the lead of those who appear to believe that all the work of a certain period is good, and, on the other hand, that no good work can be found outside it.

As the elementary account of helm, crest, and mantling given in the review may be taken to imply an omission from the book, I may, perhaps, be permitted to mention that the several points are fully developed therein.

Finally, I also plead for sane and fair treatment of this interesting subject. We all know the ordinary thing, the vague praise, the indefinite aim, the "highfalutin," in short—and sometimes, dare we say, the pet personal theory; but we do like something practical even if it be merely the power of referring to a text-book in the only possible way.

GEO. W. EVE.

[We would point out that our criticism of the omission by Mr. Eve of any reference to the Garter Plates has additional point in view of his frequent allusions to them "elsewhere," and to his admiration, in which he yields to no one, of the best of them. We reviewed "Heraldry as Art," and not Mr. Eve "elsewhere," and we impenitently feel that the admiration which is expressed by total disregard is not a very strenuous emotion. With Mr. Eve's final appeal for a sane and fair treatment of this interesting subject we entirely sympathise. It is precisely for this reason that we feel Mr. Eve has missed an opportunity of clearing away from the subject so much that is irrelevant and confusing. It is clear that we are at one in desiring to popularise the artistic use of heraldry, but as to the best method of doing this there may obviously be more than one lawful opinion. Our review enunciated very clearly an attitude which Mr. Eve does not approve; it is, nevertheless, a very proper one to be set out in our columns.]



THE BRITISH MUSEUM: BIRD'S-EYE VIEW OF COMPLETE SCHEME.

J. J. BURNET, A.R.S.A., ARCHITECT.



Photo: Bacon.

THE VICTORIA MEMORIAL, NEWCASTLE-ON-TYNE.
(IN FRONT OF THE ROYAL INFIRMARY BUILDINGS.)
GEORGE FRAMPTON, R.A., SCULPTOR.

Books.

ANOTHER ARTIST IN EGYPT.

Below the Cataracts. Written and illustrated with sixty plates in colour by Walter Tyndale. 9½ in. by 6½ in. pp. xii, 271. 16s. nett. London: William Heinemann.



It is comparatively rare to find a book illustrated and written by one hand. Where such a combination is essayed, the book is generally weak on one side or the other. Mr. Walter Tyndale is an artist first and a writer afterwards, but the letterpress is eminently readable, while the pictures are entirely delightful; indeed, we have come across few books of this sort which we can so heartily commend. The majority of the water-colours are architectural, and it is a little unfortunate that the subjects sometimes clash with Mr. Tyrwhitt's illustrations of Professor Margoliouth's book reviewed last month, though Mr. Tyndale's charming pictures of Thebes and Karnak are not represented in Mr. Tyrwhitt's set.

Mr. Tyndale's appreciation of architecture is luminous without being technical, and indeed technicalities would be unsuitable furniture for such a volume. We would, however, offer a gentle protest against labelling a charming building with the title "After the midday prayer," when we should greatly like to know the name of it.

It is a fact rather characteristic of British rule everywhere that native architecture gets little encouragement. Mr. Tyndale doubts "whether a native Cairene architect with any knowledge of the building art could now be found. The few houses built in the so-called 'Style Arabe' are designed by Europeans, and the restoration of the monuments is now in the hands of Christians." The author constantly says pleasant things about Herz Bey, the architect who has charge of the restoration of ancient buildings, a civility that few restorers deserve or get. It is horrible to be told that L'Art Nouveau has invaded Egypt, as filtered through the Levantine architect. It must be a roguish architectural medium.

As for the pictures, one is troubled that one cannot refer to more than a few. "The Tomb Mosque of Arboughan, Cairo," has peculiar interest as showing the change from the square of the tower to the round of the dome, which is effected by broaches like a gothic steeple, but in two stages, one broach in the lower and two in the upper stage. "Nefert Ari, Luxor Temple," gives a fine effect of size. The interiors are feasts of soft and rich colour, and the exteriors realise the African sunshine without a suggestion of garishness. Sultan Hasan's mausoleum has attached to it this charming story: The cheerful monarch

was so pleased with his architect, or rather with his architect's work, that he paid him the delicate attention of cutting off his right hand so that he might not design an equally notable memorial for someone else. It is a case of mutilation being the sincerest flattery. Of the illustrations of the temples and their colour decorations we need say no more than that they are equally valuable as records and as pictures. Altogether the book is a pleasure to look at, to read, and to possess.

CARPACCIO.

The Life and Works of Vittorio Carpaccio. By Pompeo Molmenti and the late Gustav Ludwig. Translated by R. H. H. Cust. 8 photographs, 240 half-tone plates, and other illustrations in the text. pp. xxxi, 248. 9 in. by 12 in. £2 12s. 6d. London: John Murray, 50A, Albemarle Street, W.



FEW artists have suffered more from the fickleness of fortune than Vittorio Carpaccio. Even before his eyes had closed in death, if we may judge from the bare chronology of his works, his methods had begun to lose favour with the Venetians, eclipsed in a manner by the more "popular" brilliancy of Titian and his contemporaries; and if we consider the steady decline in the appreciation of art which was already observable in the sixteenth century, and which has continued almost until our own day, it is small matter for wonder if the name of Carpaccio is comparatively little known. He is one of those elusive beings who have left little record of themselves beyond their pictures, and not all the intimate acquaintance which Professor Molmenti possesses of Venetian archives has availed to tell us much about him. Vittore, or Vittore, Carpaccio was born in Venice, of a Venetian family; he was the pupil of Lazzaro Bastiani; his activity ranged between 1490 (though there is a mention of him as early as 1472) and 1523. This is the sum of our definite, unassailable knowledge.

Clearly, then, the task of producing a monograph on the subject is a difficult one, and demands exceptional equipment on the part of the student who undertakes such a work. The volume before us is a translation of *La Vita e le Opere di Vittore Carpaccio*, published in 1906; and as the translator modestly disclaims any contribution on his own part save that of simple interpretation for English readers, we may turn our full attention to the original volume. Before doing so, however, we would thank Mr. Cust on behalf of all art students for the admirable manner in which he has accomplished his work. The English version is in all respects worthy of its Italian prototype.

Professor Molmenti—in spite of the generous preface, in which he seeks to give all the praise to Herr Gustav Ludwig, whose death occurred while the book was in progress—is certainly responsible for the chief portion of the work; and it would not be easy to find another better suited for the task. An authority on Venetian history, on painting, and on Venetian art in especial, he is in a position to bring to his aid the whole range of documents lying in the various *Archivi di Stato*. In 1903, in conjunction with Herr Ludwig, he published a volume entitled *Vittore Carpaccio et la Confrérie de Sainte-Ursule*, small in comparison with the present work, but giving full promise of what was to follow. “Two lovers of art who have long been particularly attracted by the genius of Carpaccio, now join forces in an endeavour to do honour to the immortal painter.” These are the opening words of the preface to the preliminary volume, and we quote them because they supply the keynote to “The Life and Works of Vittorio Carpaccio.” In this labour of love no pains have been spared to make the book complete. All that bears on Carpaccio, his family and his teachers, is carefully sifted, and the conclusions arrived at are either supported by documentary proof or left frankly in the conjectural stage for others to establish or demolish. The three great Cycles which Carpaccio painted for the *Scuole* of Sant’ Ursula, the Schiavoni, and the Albanesi, are not only fully described, but are illustrated in a manner which leaves nothing to be desired, though some clear reference to the number of the plate which is being discussed would be of assistance if added in the body of the text. We grow weary of the endless attempts to establish the identity of figures which are only hypothetically portraits. Sometimes, too, we stumble over slips in the description of the plates: trivial ones, it is true, but indicative of a certain hastiness which is to be regretted. And so true is the translator to his text that he repeats them without drawing attention to the fact that the authors err. As an instance we would quote “The Birth of the Virgin” in the *Scuola degli Albanesi*: “The door is open, and affords us first a view of the kitchen, with its wide chimney-hood (*napa*), before which a servant is bending, busy plucking a fowl” (p. 170).¹ A glance at the plate proclaims the text to be wrong, for the woman in the kitchen is engaged in drying a cloth at the open wood fire, while it is another servant in a room further off who is preparing the chicken, doubtless for the purpose of making *brodo* for the invalid. The picture is full of naïve detail, and in this respect Carpaccio somewhat resembles the painters of the early Flemish schools. With a treatment gene-

rally broad and grandiose he combines a fine appreciation of incidental details, and his pictures are valuable in illustrating the customs of the day. If he paint the “Annunciation,” the Virgin kneels to pray under a loggia in the style of the Renaissance, and in the background we see a walled garden such as exists outside a score of places in the Veneto to-day; if it be “The Return of the Ambassadors” (to the King of England), behold the Venetian *scalco* (steward) seated in the midst and the chief actors in the scene dressed in the costume proper to the *Compagnia della Calza*; if his subject be “Samson and Delilah,” why then, *per Dio!* the Man of Strength must get into Venetian tights and pose before an Italian background! “We may also observe,” the authors tell us, “curious and valuable details of old-time architecture; the tall, funnel-shaped chimneys, clustering above the roofs, the terraces (*altane*) from which extend long poles with linen bleaching in the sun.” Perhaps: but we should not like to see *all* Carpaccio’s architectural details accepted as truth. Even Professor Molmenti, while urging the artist’s claims in this respect, is obliged to confess that his notion of an Egyptian pyramid reminds him of the Eiffel Tower!

EARLY GREEK ART.

The Rendering of Nature in Early Greek Art. By Emanuel Loewy. Translated from the German by John Fothergill. 8 in. by 5½ in. pp. 109. Illustrations 50. 5s. nett. London: Duckworth & Co., 3, Henrietta Street, Covent Garden.



THIS book is a characteristic and fine example of German art criticism. We think the title might have been with advantage more clearly descriptive of the subject-matter. Professor Loewy traces the development of the conception of form in the mind of the early artists of Greece, but confines his argument and examples to human and animal forms. The ordinary loose connotation of the word “Nature” may lead prospective readers to expect some disquisition on plant forms decoratively used, but there is none. Mr. Fothergill in his preface takes the line that strict scientific discussion is a tonic much needed by our archæology, and complains, very properly we think, that there is too much moral comment and æsthetic make-believe in the critical atmosphere, elements which darken counsel.

Professor Loewy pursues with close reasoning the psychological rather than the technical explanation of the development of artistic capacity, and we think he successfully demolishes the theory generally held, that technique has the supreme influence on form. In short, the Loewy

¹ The rendering in the Italian version is identical in meaning.

theory is that primitive art is based on the unprejudiced mental image, which grasps at first nothing but the outline, proceeds by drawing in the flat its objects spread out to their fullest visibility, and only achieves by gradual accessions of observing power the sense of the plastic and the control of the round.

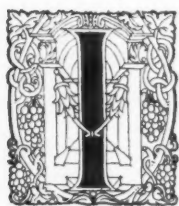
The initial bondage to the mental picture is shown to persist in the phenomenon of unifaciality even when all-round modelling and correct depth have been achieved, and this point is sufficiently proved by the admirable series of illustrations of early Greek sculpture.

Even in the Laocoön there is a dependence on the single plane which demands the single view-point. Myron's Discobolus (with which most old Public School boys are familiar) presents a general scheme compressed between two parallel planes. With Lysippus, however, the appeal to the mental picture is finally abandoned. The "Youth tying his sandal" at Paris truly fulfils all the conditions of sculpture in the round, visible in true perspective from every view-point, wholly independent of backgrounds real and imaginary, relying on a consummate interpretation of Nature.

We do not suggest this book to readers as a book to be skimmed through. Such treatment would yield up naught but a harvest of hard words, for indeed it is a difficult book, and none the less so for being a translation from the German. By serious students it will be found immensely stimulating, and it is of a sort of criticism not common in this country, and the more, therefore, to be welcomed.

VENETIAN HISTORY.

Studies in Venetian History. By Horatio F. Brown. Two vols. 5 in. by 9 in. pp. ix, 366, 349. 18s. nett. London: John Murray, 50A, Albemarle Street, W.



If the author had clearly stated that his two volumes contain a collection of separate essays on Venetian history, all of which have been published before in some form or other, we should have known what to expect.

Ten of these twenty essays were published at different periods in the quarterly magazines, and ten of them appeared in his "Venetian Studies"; but it is not made clear that each one of these studies has already made its bow to the public.

The merit and completeness, however, of each of these essays entirely justifies Mr. Brown's action in publishing them as a disconnectedly consecutive commentary on the life, not only of the Venetians, but of all the Northern Italian peoples. The story of Venice is so amazing and perplexing, so involved and yet so very clearly defined

as to the main lines of its policy, that it is more than the work of one man to grapple with the whole story and to wade through the mountains of *registri* and *filze* in which the Venetian archives are peculiarly rich. Far be it from us to enlarge upon this matter; for with this book before us we are in the presence of a writer who has made his home in the City of the Lagoons and to whom the muniment rooms of the Frari have cheerfully yielded up their dead records of the past. It is better for us that he should confine his attention to distinct episodes.

Surely no writer of fiction ever dared to imagine such things as we learn from these pages were actually done of old? The mysterious poison cupboard of the Council of Ten, where deadly phials and lethal powders stood in serried ranks, waiting the time and the opportunity; the secret documents—*dossiers* they would be called nowadays—and the minutes of regulations passed by the Ten which arranged for the removal of some one whose presence in the world troubled the Venetian peace of mind. "By the authority of this Council be it decreed that the chiefs of the Council be charged to inform themselves in the most cautious and secret manner as to the ways and means by which we can put to death, through poison or otherwise, certain bitter and implacable enemies of our state."

It was a practice sanctioned by necessity and condoned by the Church. It was the older version of the survival of the fittest; and the fittest was the man who removed all the obstacles from his path and prevented his own removal from the path of others. They were men who seemed to recognise no medial course of action, and whose thoughts ran with no perceptible effort from one extreme to the other. "At one moment these men were tearing along in a mad orgy, at the next they were covered with sackcloth and ashes, marching in the rear of the Bianchi procession, joining fervidly in the cry, 'Repent! repent!' swelling the chorus of 'Stabat Mater.'" This is the dominating note in the story of the Visconti, the Sforza, the Carraresi, the Scala, the Estensi, and an army of other Signori. To their moments of contrition we owe such monuments as the Certosa of Pavia and the rich endowments of Italian churches; to the spirit of rivalry in themselves and their successors we owe the patronage of the craftsmen which has made these buildings the Mecca of the art-loving world.

More attractive than the wildest romance, these "Studies in Venetian History" help us to reconstruct the past and to realise bygone habits of mind and body in a country which more than any other has contributed towards the culture of the present day.

MORE SPANISH BOOKS.

The Cities of Spain. By Edward Hutton, with 24 plates in colour by A. Wallace Rimington, A.R.E., R.B.A., and 20 illustrations in monotone. 7½ in. by 5 in. pp. xv, 324. 6s. nett. London: Methuen & Co., 36, Essex Street, Strand.

Toledo. By Albert F. Calvert. (The Spanish Series.) 7½ in. by 5 in. pp. xxxiii, 169. 509 illustrations. 3s. 6d. nett. London: John Lane, "The Bodley Head," Vigo Street, W.

The Arts and Crafts of Older Spain. By Leonard Williams. In three volumes. 8 in. by 5½ in. Vol. I, pp. xiv, 289, 63 illustrations: Gold, Silver, and Jewel-work; Iron-work, Bronzes, Arms. Vol. II, pp. x, 263, 79 illustrations: Furniture, Ivories, Pottery, Glass. Vol. III, pp. ix, 282, 33 illustrations: Textile Fabrics and General Index. Price 5s. nett per volume. T. N. Foulis, 23, Bedford Street, London, W.C., and 13-15, Frederick Street, Edinburgh.

BOOKS on Spain, her arts and buildings, are just now falling on the reviewer's table as thick as leaves in Vallombrosa, and each is so good of its kin that we trust that they are all getting public support.

Mr. Hutton is anxious that his "Cities of Spain" shall be judged simply as literature, and not as an accurate record, and in his concluding chapter flouts some learned critic who caught him up on some question of date. Throughout the book the personal note is sounded loudly, indeed sometimes at the top of Mr. Hutton's voice, but none but a carping critic will think less of it for that. "I went to Spain," he says, "in ignorance and in love." We are very glad he went, for he has plucked out the heart of her tragedy, and created for us her atmosphere in a way that is more worth than a hundred volumes of your Dr. Dryasdust. Such a literary method has its dangers, however.

Mr. Hutton's sentences rush on with a verve that leaves us rather breathless sometimes, and we occasionally get only rhapsody when we should have been grateful for a little description. In the end, however, he achieves what we imagine is his main object, to make his readers love Spain and long to go there. We can imagine no more stimulating companion for a Spanish journey than this volume.

His architectural criticism is eminently sound, and we are sorry that the exigencies of space forbid us to quote him at large. He puts an unerring finger on the restlessness of all Spanish architecture, and lucidly compares the decline of Romanesque and Gothic, the latter dying "in the midst of a supreme gesticulation."

We are glad that Mr. Hutton is not afraid to approach his subject often from a devotional standpoint, and to speak his mind freely on matters that count.

It is altogether an absorbing book, and his forthcoming volumes on St. Francis of Assisi and on Rome will be looked for with an added interest by those who have taken him as a guide to Spain.

Mr. Calvert has given us another of "The Spanish Series," and an excellent book. As usual, the illustrations are the principal feature, and we can well believe that no single corner of Toledo has escaped the author's camera. Toledo is in contrast striking enough to Granada (Mr. Calvert's book on which we reviewed in December). The Moorish occupation "left no more than a scratch on its Moorish character."

As the home of the Mozarabic rite Toledo has a peculiar liturgical significance; and as the Jews, in spite of sporadic persecution, always held a notable place in its history, and

built fine synagogues, at a time when elsewhere they were being burnt, the religious atmosphere is varied and interesting.

All writers on Spain and on Spanish architecture are necessarily in debt to Street's writings, and Mr. Calvert has quoted judiciously. The book concludes with a chapter on that amazing artist, el Greco, who is a personification of Toledo, which he did so much to adorn.

One aphorism of Mr. Calvert's we cannot quite follow: "The artist does not find his matter straight from the springs of his brain; what he is able to see he sets down, and that is all."

This describes fairly one class of artists, but we need another category for such men as Blake, who painted as never man saw.

Mr. Leonard Williams's book is for the student, and reviews in admirable detail the whole artistic activities of Spain, except of course easel pictures and pure architecture.

He emphasises, and we think rightly, the fact that Spain, despite her treasures, has been and is really indifferent to the arts. She has drawn on her neighbours freely, with results sometimes extraordinary. The Moorish work, which penetrated almost everywhere, the less frankly Mussulman motives of Mudejar craftsmen, the German influences so apparent in the retablos of the fifteenth and sixteenth centuries, the Italian and Burgundian artists who here and there changed the face of the native art, all go to make up a marked incoherence which confuses one's outlook. This incoherence Mr. Williams has set out to unravel, and his admirable and full lists of craftsmen, his critical examination of the thousands of objects described, and the useful appendices and bibliography, make the three volumes a valuable storehouse for reference.

In the section devoted to furniture the author devotes considerable space to choir stalls and other woodwork in which the Spanish genius for figure sculpture is revealed.

While we agree that it would be absurd to rank such figures as the famous Saint Francis of Assisi (an admirable photograph of which serves as frontispiece to Vol. II.) with the world's treasures in bronze and marble, they are still precious as the highest expression of the wood-carver's art. Mr. Williams has wisely ignored the excesses to which the later plateresque work ran, and has illustrated Spanish art from its best examples, a very wise eclecticism.

SHEFFIELD PLATE.

Sheffield Plate. By Berti Wyllie. (Newnes Library of the Applied Arts.) 9 in. by 5½ in. pp. xix, 117. 121 illustrations from photographs and many makers' marks. 7s. 6d. nett. London: George Newnes, Limited.

SHEFFIELD PLATE is a possible thing for the comparatively poor to collect, and as guides are necessary in these matters, Mr. Wyllie's book is a welcome aid.

Probably five out of six owners of Sheffield plate suppose it to be electro-plate, but old and with a copper instead of a white-metal basis. Mr. Wyllie's desire that it should rather be called "copper rolled plate," a phrase which describes its making, is a counsel of perfection; but we fear "Sheffield" is too deeply rooted to be abandoned. The foolishness of speaking of "Queen Anne" Sheffield plate is sufficiently apparent when we are reminded that the rolling of silver on copper was not invented by Thomas Bolsover until 1742. Until about 1760 rolled plate was not used for much beside snuff-boxes and buttons, but by 1770 pewter was practically swept away by this humbler sister of silver. One Wright invented electro-plating in 1840, when his patent was acquired by Elkingtons, so the rise and decline of "Sheffield" plate lasted for less than eighty years. Our author deals in sufficient detail with the methods of making, and shows the development of edging from the

drawn wire to the later rich shell and mallow patterns. He points out that the silver shield is not a criterion of the best work, which often lacks it, and warns us against attaching too much importance to makers' marks. These were not allowed by law until 1784, by which time much of the admirable simple plate (called Queen Anne) had been made.

It is important to remember, too, that Sheffield plate produced no new designs or treatment, but followed contemporary and earlier silver. The various articles which may be sought are set out in a useful list, but we wish Mr. Wyllie had abandoned the name "bottle-stand" for "coaster," or for the other variant "wine-slide."

The illustrations are numerous, and reproduced to admiration.

THE WESTMINSTER TECHNICAL SERIES.

India-rubber and its Manufacture. By Hubert L. Terry, F.I.C. pp. 294.

Liquid and Gaseous Fuels. By Vivian B. Lewes, F.I.C., F.C.S. pp. 334.

Electric Power and Traction. By F. H. Davies, A.M.I.E.E. pp. 293.

Coal. By James Tonge. pp. 275.

Town Gas and its Uses for the production of Light, Heat, and Motive Power. By W. H. Y. Webber. pp. 275.

The Westminster Series. Uniform. Each 6s. nett. 5½ by 8½ in. London: Archibald Constable & Co., Ltd., 10, Orange Street, Leicester Square.

THESE are five volumes, printed in clear type on good paper, and adequately illustrated, in a new series of inexpensive technical handbooks. Their subjects hardly come within the purview of this magazine, which is restricted to a consideration of subjects on the artistic as opposed to the constructional side of architecture, and it is a little difficult to understand why we should have been favoured with them.

We confess that our knowledge of "india-rubber and its manufacture" is of the smallest; indeed, we doubt if the architect is ever called upon to consider it in an artistic sense, save in the way of floor tiles. But on the authority of an old planter, who is Managing-Director of three rubber companies, we are enabled to say that "it is very well written and should prove of value to all people interested in the subject."

Professor Lewes being one of our authorities on the chemistry of gases, it is hardly necessary to state that his latest work will be a valuable addition to technical literature. Though his present subject is liquid and gaseous fuels, he finds a difficulty in divorcing them from the subject of solid fuel, in most cases the parent from which they have sprung, and his first three chapters deal at some length with the science of combustion; fuel, its formation and composition; the determination of calorific value—more particularly, in fact, with solid fuels. The differences between the Russian and the American crude petroleum are discussed at some length, and the author then proceeds to consider the various uses of liquid fuel for power production. The two following chapters deal with the "Manufacture of Coal Gas," "The Use of Coal Gas for Heating and Power." In this latter chapter are some useful notes on gas burners and gas stoves. The results of the author's investigations and experiments with the latter should be read by all architects. The discomfort, if not positive danger, of many of the forms of gas stove, especially those of the condensing or flueless type, is duly emphasised. In regard to this type, Professor Lewes states concerning some trials of this class:—"Whether the gas was consumed in a flat flame or a bunsen burner near the floor level, or whether it was consumed

in a regenerative or condensing stove of the most costly and complicated pattern, in all cases the result was the same, and if the user does not mind hot foul air and injury to his health, a few bunsen burners on the floor is the most effectual form of stove that can be used." The high efficiency as regards heating and gas consumption "accounts for the popularity of this class of stove, but it cannot be too strongly urged upon the public to use them only in halls, passages, or workshops where ample ventilation can be relied upon, and never under any condition to admit them to the dwelling-rooms of a house." The other classes of gas stoves were more extravagant in the amount of gas consumption, those aiming at the production of radiant heat (the most sensible class from a hygienic standpoint) wasting about 50 per cent. of the heat up the chimney, and the third class, having a hot-air chamber or a length of flue to heat the air, varied very much in gas consumption, and with them it is impossible to prevent the carbon monoxide, the most deleterious product of incomplete combustion, from escaping through the thin iron plates of which these chambers or flue-pipes are constructed.

Succeeding chapters deal with "Water Gas," now so largely used for admixing with and cheapening coal gas, "Poor Fuel Gas," which includes the modern producer gases—both these being more of engineering than architectural interest—and in the final chapter Professor Lewes discusses the fuel of the future. The rapid exhaustion of the world's coal and oil supplies points to the utilisation of the immense peat deposits at a not very distant date. The decay of steam for power purposes in competition with the internal combustion motor, and the centralisation of power production, are other prognostications. Professor Lewes looks for a day when coal gas will be produced at the pit's mouth, mixed with water gas from the coke produced in the first process, and distributed under pressure to great distances at a selling price of under 1s. per thousand feet. The use of alcohol, produced from potatoes, for internal combustion is also favourably regarded, but the author points out that alcohol is so hampered by State regulations as to be practically doubled in its economic price, and its utilisation for power production is practically prohibited. Altogether a very interesting and lucid work.

Mr. Davies's volume is far too special in its application to warrant extended notice in these columns. His thesis is the modern application of electricity for various power purposes, some amount of technical and scientific knowledge on the part of the reader being requisite to appreciate the work. It should be found valuable as a concise summary of recent developments in electrical power production for tramways, railways, canal and colliery working, as well as for factories and workshops.

Mr. Tonge writes informally about coal, its formation, characteristics, heating qualities, and uses. Our knowledge of this useful mineral is confined, however, to burning it in a grate, and our interest is limited mainly to the current market rates for it. So far as we are able to judge, this is a very useful manual, and since it came into our hands our knowledge of coal has considerably increased—much to the disgust of acquaintances to whose bookshelves Mr. Tonge's volume would be a welcome addition.

Mr. Webber's position as staff instructor and lecturer of the Gas Light and Coke Company entitles him to the position of an authority, and his book may be found useful by architects for the excellent notes given on gas lighting for rooms, with particulars of the ratio of floor space and height to candle-power, &c., and also for further notes on heating and on cooking by gas. Mr. Webber is much kinder in his remarks about the flueless gas-fire than Professor Lewes, but on this point we are inclined, after experience of all kinds of gas-stoves, to side with the Professor. The gas-fire made up in the ordinary grate is undoubtedly the best one; and we are glad to note that Mr. Webber confirms us in this opinion.

ETCHINGS AND DRAWINGS.

The Etchings of Rembrandt. 11½ in. by 8¾ in. 61 Plates, with introduction, bibliography, and chronological list. By A. M. Hind. pp. 35. 7s. 6d. nett.

Drawings of Michael Angelo. 11¾ in. by 8½ in. 46 Plates with introduction by E. Borough Johnson, R.I. pp. 14. 7s. 6d. nett.

London: George Newnes, Ltd., Southampton Street, Strand.

FOLLOWING rapidly on the issue of Professor Baldwin Brown's "Rembrandt," reviewed in our December number, this volume dealing only with the master's etchings is a valuable addition to the libraries of art-lovers.

Mr. Hind's introduction is brief and lucid. He emphasises Rembrandt's position as the supreme master of the art of etching, and brings out the immense advance which he made on the simple line-engraving of Dürer and Lucas van Leyden.

In etching, as in drawing and painting, Rembrandt shows his almost miraculous variety and control of technique, and his ceaseless efforts after improved methods. Mr. Hind divides the etchings into three main periods, the first characterised by the pure etched line with a consequent delicacy of effect, the second by strong chiaroscuro, chiefly attained by interlacement of line, the third by a vigorous use of dry-point, and a rendering of tonic values by inking the plate in printing instead of relying on close hatching. The last method is of a summary kind, which needs the artist to handle the printing as well as etch the plate, and is a kind of painting in ink which needed a genius like Rembrandt to show the way. Mr. Hind is very informing on the question of "states" and other points interesting in the consideration of the development of the master's methods. The "Rembrandt drawing at a window" of 1648 forms the frontispiece and is in photogravure. The remainder of the plates are printed from half-tone blocks. This is, of course, the only possible method for a book at a popular price, but it is in the nature of things that nothing but photogravure can do justice to an etching, for half-tone darkens the whites. If one compares, for example, the great photogravures in "Vereeniging tot bevoederen van Beeldende Kunsten" of 1904, edited by Jan Veth (which very important publication Mr. Hind appears to have overlooked, as it is not given in his bibliography), one is impressed by the brilliant sky of "The Three Trees," by the magic light in the "Doctor Faustus," and the heavenly illumination of "The Three Crosses." The reproductions now under review veil these effects; but, save for this inevitable loss, the book is printed with the perfection we have come to expect in the art publications of Messrs. Newnes.

The volume of Michael Angelo's drawings is a delight to handle. It makes one realise afresh the colossal genius of the man who as architect, painter, draughtsman, and sculptor gathers up all the erudition, passion, and virile power of the Renaissance. England is rich in his drawings, and the majority now reproduced are from Royal, National, or University collections in this country. Where the originals are in red chalk the reproductions are also in red, a very attractive feature. Mr. Johnson, in his appreciation, writes with the technical knowledge of the practising artist and with the natural enthusiasm of one well able to value the work of so supreme a master.

THE BUILDERS OF FLORENCE.

The Builders of Florence. By J. Wood-Brown, M.A. With seventy-four illustrations by Herbert Railton. 9½ in. by 11½ in. pp. viii, 423. 18s. nett. London: Methuen & Co., 36, Essex Street, Strand.

"YOU are to know," says Izaak Walton, "that there are so many sorts of flies as there be of fruits," and the same holds

good of reviews. There is the review which carves out solid extracts from the volume and then dissects them more or less conscientiously; there is the review that writhes and twists uncertainly when dealing with the main story, but pursues side issues to the bitter end; there is the review which is concerned only with the author in relation to his book, telling us what, in the opinion of the reviewer, the author *ought* to have said in place of what he *has* said—and this sort generally concludes with a plethora of suggestions as to how the author should write his next volume in order to escape the annihilation which is dimly threatened; and finally there is the review which endeavours to stand between the book and the public to whom it is addressed, in the character of a well-wisher to both. Something partaking of the nature of all these is called for by "The Builders of Florence."

We must confess that the title misled us, though the fault was entirely our own. In our conception of the building art we had come to regard such matters as concerning only the architect and those who work under him. Mr. Wood-Brown has corrected that notion, and we are grateful. He begins with the people whose spirit is expressed in the buildings of the city; and like a skilful general he builds his roads before proceeding further. In his opening chapter, which is somewhat cryptically entitled "The Substance," we are given a lucid essay on the geographical situation of Florence, together with the several Roman roads which converged upon this point, thus marking it out in comparatively early days as a position of such importance as to justify its self-chosen name of *Piccola Roma*. This "Substance," be it noted, does not as yet occupy itself with architecture, and throughout the two ensuing chapters on "The Spirit" and "The Form" we seek in vain for something more nearly concerning our own sphere of interest. Herein, perhaps, lies the chief value of the book; for, with the single exception of a somewhat fanciful suggestion that the extraordinary vicissitudes through which Florence in common with all the other States of Mediaeval Italy passed between the foundation of her Republic and the supremacy of the Medici may be due to the existence of a secret yet powerful society,¹ the author has carefully devoted his opening chapters to a critical survey of the Florentine State, its people and their commerce, before embarking upon his account of their buildings. The buildings are to be viewed as the outcome of the requirements of the age, limited by local conditions and materials; not as a series of works evolved by more or less isolated *individuals*, treading consciously or unconsciously the path that leads to what we call a "Style." This we take to be the message of "The Builders of Florence."

"It is a natural progress of ideas which leads from Politics to Architecture; for, as we follow, it is but the Form we are pursuing still in a further, a more material manifestation," writes the author; and thus, with Chapter IV., we at last reach the field of Florentine Architecture. Here, alas! we have to follow Mr. Wood-Brown at a break-neck pace in chase of a theory. He tells us that "the original building unit in Florence, as elsewhere in Italy during the early Middle Ages, was the tower," a proposition which no one who has studied the subject will be inclined to deny; but when we find that nearly all the various classes of building which adorn a city are to be reduced to a conglomeration of tower-units disposed according to fancy, we begin to suspect that the author has

¹ "We have called the Mafia a strange phenomenon, but its strangeness need not make us suppose it singular, or confined to the island with which its name is now associated. Many hints lead us rather to suppose that the mainland has seen the like, and that much of Italian history, in its frequent obscurities, might be cleared up by supposing the existence of such a state of things. How then if this be the clue to the perplexing story of Florentine government?" (pages 50, 51).

been given the "gift of eyes" even as the disciples of old received the "gift of tongues." We gather that the church builders of Florence did not set to work in the way that we have learnt; their sanctuaries were not planned according to the requirements of the ritual of the Mass; their choirs were not schemed for the exact purpose of accommodating a given number of clerics; nor, when the spacing of the nave bays and the rise of the arches had to be determined, were they in any way affected by the necessity of providing room for processions and height for the carrying of banners. It was merely a question of tower-units. It is the solid vaulted substructure of the tower which is carried over "chancel, transepts, aisles, and nave in a gradual progress that truly prepared for the later triumph of the gothic style" (p. 119). The early Florentine builders, then, had never heard of the Basilica of Constantine, or of Caligula's Palace, or of the Baths of Caracalla; or if they knew of them, preferred to shut their eyes to all that had been done in the mighty days of Rome, and to sit down quietly at home, building up their tower-units like a child with his bricks into whatever form suggested itself. And the gothic work of Northern Europe is to be traced to its source in a land which notoriously rejected the style and would have none of it. All this, it may be, is not what the author would have us understand, but it is the clear inference which is to be drawn from his words. Having disposed of the ubiquitous tower-unit in so far as it touches house-building, the isolated Campanile attracts his notice, standing "free on its own independent site. But presently it moves nearer, becomes part of the church itself, and in situations almost infinitely varied. . . In this new situation the vault of these towers was suggestive. Its plan pointed to a series of surrounding bays in which it might repeat its characteristic feature till the vaulting was continuous, and the whole church roofed in, not with wood, but with stone. Hence an ecclesiastical development of the vault exactly answering to the civil. We cannot help noticing how closely the Loggia dei Lanzi, for example, corresponds with the aisle of a church, and naturally if, as we suppose, both rose from the same origin. From its nook between transept and chancel the tower developed the vaulted chancel-aisle and *chevet*; from the west it threw bays along the aisles of the nave; from its place at the door it developed a porch across the front, the exact ecclesiastical equivalent of the secular Loggia" (pages 119, 120).

So, when we are led on to contemplate the church of Or San Michele, we suspect in advance that it is nothing but a thing contrived out of tower-units; nor are we disappointed. The history of this remarkable building it does not lie in our province to tell; but if our remarks are to carry weight we must briefly refer to the leading facts. There had stood upon this spot a church dedicated to St. Michael which was pulled down in or about 1239, to make room for a grain market. In the Loggia then erected there was a picture of the Madonna painted against one of the pilasters, by which, according to Giovanni Villani,² many wondrous miracles were wrought in the year of grace 1292. The Loggia was burnt down in the civil broils of 1304 and remained in ruins for many years. The virtues of the miraculous picture, however, still marked the spot as one of deepest veneration, so that when, in 1335, it was determined to rebuild the Loggia it was almost natural that a splendid shrine for the Madonna should form a portion of the scheme. This is the design which our author with great facility dissolves into a collection of towers. "The first purpose it must fulfil was that of a market and a store for grain, and in this direction there was no want in Florence of a recognised building type ready to be chosen and developed here. The characteristic sale-room of the city . . . was the vaulted basement of the tower"; and after what we have

already read we are fully prepared to be told that "this then was the building-unit for the purpose in hand, which only needed multiplying and slight modification to meet the larger public and civic needs of the case. Or San Michele then is, in essence, simply a close-set group of six such towers; their united basements forming an open vaulted Loggia, and their first and second storeys a sufficient grain store" (page 183). One more reference, and we have done with these impertinent towers. The climax is surely reached when we read on page 188 that "every continuous vaulting, whether of Church or Loggia, may safely be traced back through all the lines of its development to the simple vault that roofed the basement of the early towers." If this is not what we have already said with regard to tower-units and nursery bricks it is something very like it. Let those who have written our architectural histories and spent much time and ingenuity in tracing the complicated types of vaulting back through sexpartite and quadripartite forms to the interpenetration of two barrel vaults and thence to the simple expansion of the semi-circular arch hide their diminished heads! So new a theory, and one moreover which willfully ignores the influence of classic remains—we leave out of count whatever lingering tradition of Roman methods may have survived the successive devastations of the barbarian invaders—cannot really be taken seriously. We cannot blind ourselves to the fact that the Romans employed groined vaults of considerable span long before the Florentines thought of juggling with their tower-units, and it does not seem likely that a pre-eminently intellectual race of men should have been hide-bound where, as the author seems to maintain, there was no precedent to be observed, and so devoid of invention as to make one form suit all purposes. As well may we take a kitchen table and call it the table-unit of furnishing, adding a back for our chairs, a mattress for our beds, and whittling down the legs to make our stools.

It is not our wish to detract from the value of Mr. Wood-Brown's volume: it is rather because we so heartily endorse much of what he says that we regret these lapses into clairvoyancy. He has put the matter of decadence of style, for instance, into words which are worth remembering by all who are engaged in the practice of architecture. He is speaking of Sta. Felicità, and while doing so refers to the barocco style. It is not this, however, which attracts our attention, but his summation of the causes which have led to the decline of each succeeding style. "Such successive decadences of the building art from its great styles have a common mode of self-manifestation which we begin to perceive; they agree in their abuse of curved lines. That there is a true and noble use of curvature in this art none will deny. This is seen, not only in the arch and dome, with all their charm, but even more subtly in the Greek temples, where every line, almost, of base and column, of frieze and pediment, is just enough curved to seem, by virtue of perspective, absolutely straight. Such subtlety gives a life to these architectural lines which without it they could not possess, and by its grace the eye is charmed, spellbound in beholding the invisible. So to use the curve demands almost inconceivable self-restraint in the designer, lest, at the least exaggeration, that which should have been vital to the building become fatal, or rather mortal, stamping it with the clear signs of decay" (p. 236). As an instance of this in the Romanesque he mentions the cathedral of Pisa, where the "architecture of the façade is clearly Romanesque that has seen its best days and fairly entered on the path of decline." Then, "It were easy to follow the matter out through the later decay of the Gothic, and to show how the Flamboyant manner, as its very name denotes, lived in a lavish corruption of the double curve . . . the famous 'line

² Giovanni Villani, *Historia Universalis*, in Muratori, *Rer. It. Script.* vol. xiii, Lib. vii, cap. cliv.

of beauty? . . . and that even the Perpendicular, amid all its rigidity, lifted high the fatal sign in its fan traceries."

With all this we are heartily in agreement, and we regret the more that the pages which are devoted to wild theories were not reserved for further comments of this nature. His view of Brunellesco's dome comes to us as something rather novel; for he shows us, with every appearance of probability, that the prototype of the cupola which dominates the city is to be found, not in Rome, but in the baptistery or church of San Giovanni, in Florence itself. "Substantially, constructively, it is the church of San Giovanni expanded and lifted in an apotheosis half-way to heaven."

We have said enough to explain the scope of this book, but we wish to emphasise the fact that its strongest point lies in the manner in which the author clears the way before treating of each successive building. Before Ognissanti came to be built the *Arte della Lana* existed; therefore we have a well-thought-out excursus into the history and aims of the Guild before we are shown how the intentions of its members were fulfilled in their church. This is surely the truest course to adopt in describing architecture and the expression of man's requirements in concrete form; and this is the method Mr. Wood-Brown has chosen in his several chapters. We may regret the total absence of plans which would often have been of assistance in following his arguments. He persists in seeing tower-units as in a troubled dream; and in treating of the façade of San Stefano he again sees in the arch and lintol over the main entrance the horseshoe form which attracted his attention some years ago.³ It may be accidental, but Mr. Railton's drawing of this façade unduly emphasises the very lines upon which the author bases his theory, making what are in reality mere surface scorings appear as distinct joints in the masonry. We have devoted too much space to tower-units to be able to follow up this second vision, but it may be noted that Mr. Wood-Brown falls back for support on those researches of Mr. W. H. Goodyear into *Architectural Refinements* which, we believe, are very far from being universally accepted by students.

Those who wish to study the beginnings and *raison d'être* of Florentine building will find this book of the greatest service, and the many illustrations in the familiar style of Mr. Herbert Railton, while falling below his own standard of excellence by reason of a certain obviously hurried filling in of the shadows, do much to render the volume a desirable possession.

THE STately HOMES OF ENGLAND.

In English Homes: The internal character, furniture, and adornments of some of the most notable houses of England historically depicted from photographs taken by Charles Latham; the letterpress edited and an introduction written by H. Avray Tipping, M.A. 16 in. by 11 in. pp. xl, 436. Profusely illustrated. 42s. nett. London: "Country Life" and George Newnes, Ltd., Tavistock Street, Covent Garden, W.C.

IF anyone should so greatly dare as to attempt a history of the state of public taste in this country, and the causes of its undoubted growth in the right direction, no small meed of praise will be accorded to *Country Life* for its share in making popular the architectural beauties of our great English Homes. In the apportioning of such praise the lion's share must fall to Mr. Charles Latham, for it is by his splendid photography that week by week *Country Life* has been able to set before its public a series of pictures which it is no exaggeration to say are unequalled. There is a sort of architectural photography which is impressionistic, which either

despises sound technique and is incapable of it, or deliberately rejects it as inimical to the pictorial effect which is sought. With such manifestations of photographic art we have no quarrel, but they regard buildings as pictures rather than as architecture, and indeed often win their most notable effects from subjects which in themselves have no sort of architectural merit. Mr. Latham's work has the supreme advantage of invariable faithfulness. When he can give us a photograph which is a picture in its own right and without sacrifice of record, he does so, and we are the better pleased, but always he gives us a record. However dark the timber roof of an old and dimly lighted hall, the deepest shadows are transparent and we see the detail.

It is impossible for us to describe this fine series of great houses. Some are well known, others but little, but all have some feature of interest.

The general scheme of the book places the gothic and Elizabethan houses at the beginning, and we move through the seventeenth and eighteenth centuries as the pages turn till we arrive at the last chapter, on Marsh Court, the work of Mr. Lutyens, and very pleasant it is to see this strong English building so adequately illustrated.

The general descriptive matter of the book is sound, but calls for no special remark. The introduction by Mr. Tipping is a general survey of the development of the larger sort of domestic architecture, and is a well-balanced review, free from the technicalities inappropriate for the lay public, but sympathetic and informing. Modern architecture he dismisses in rather cavalier fashion, referring only to Mr. Lutyens as a "clever architect"—rather a cruel phrase, that. We think that in such a survey some word might have been given to the work of Eden Nesfield, Devey, and Mr. Norman Shaw.

However, that is a small blemish on a fine book which is perhaps even better than the earlier volume of the same title. We wish every success to it, and to the proprietors and editor of *Country Life* in their continual picturing of all that is best in English domestic architecture.

THE BRITISH ARCHÆOLOGIST ABROAD

Papers of the British School at Rome: Vol. iv. 10½ by 7½ in. pp. xi, 296. Plates xxxviii, 9 illustrations in text, 3 maps. 31s. 6d. nett. London: Printed for the subscribers and sold on their behalf by Macmillan & Co. Ltd., St. Martin's Street, Leicester Square.

THIS admirable and scholarly volume is proof, if any were needed, of the vitality of British archaeology abroad. It has often been alleged that France and Germany have outstripped us in the elucidation of classical antiquities. This was probably a fair criticism in years past, and we doubt whether even now there is the wide intellectual and sustained vigour in English that there is in foreign research; but such students as the contributors to this volume have almost wiped out the reproach.

Mr. Thomas Ashby, the Director of the School, continues his erudite report on the classical topography of the Roman Campagna. Mr. Sidney J. A. Churchill contributes a most interesting study of the Goldsmiths of Rome under the Papal Authority, a considerable achievement for our Consul at Palermo. Mr. A. J. B. Wace returns to ground where he has already won a great reputation in his "Studies in Roman Historical Reliefs." Unhappily we have no space to set out in detail his most interesting conclusions. A short note on an ivory statuette in the British Museum by Mr. A. H. S. Yeames, the Assistant Director of the School, gives a welcome touch of change to the series of papers, and Mr. T. E. Peet's paper on the "Early Iron Age in South Italy" closes an admirable volume.

³ See the ARCHITECTURAL REVIEW, Vol. XIII, p. 71.

FOR THE DRAWING-ROOM.

London Parks and Gardens. By the Honourable Mrs. Evelyn Cecil (Alicia Amherst), Citizen and Gardener of London. With Illustrations by Lady Victoria Manners. 10½ in. by 5½ in. pp. x, 384. 25 plates in colour and 14 illustrations in text. 21s. nett. London: Archibald Constable & Co., Ltd., 10, Orange Street, Leicester Square, W.C.

THIS is a book for the drawing-room table, and of such one does not ask more than that it shall be agreeably and accurately written. Mrs. Evelyn Cecil is an authority on gardening, but the gentle art of making books demands special qualifications, and some of these seem to be lacking here. Such writers as Evelyn and Pepys are freely quoted, but other phases of English social life, where it touched the parks of London, are somewhat carelessly handled.

Talking of duelling, Mrs. Cecil tells us that Captain Macnamara was killed by Colonel Montgomery, who was tried for his life, but acquitted. The fact is that the Captain killed the Colonel, as may be gathered from the *Annual Register* of April 1803. The duel arose out of a dog fight, and it may be of interest to add that Thomas Weaver, a painter of animals, notes in his diary of 1804 that he did a picture of the Colonel's dog for the Colonel's mistress (one Mrs. Biggins by name)—surely an odd tribute to his memory.

Mrs. Cecil is interesting on the subject of the London squares. She rightly describes the statue in Queen Square, W.C., as being of Queen Charlotte, whereas it is generally called Queen Anne. She refers appreciatively to the charming formal garden laid out on the roof of the electric power station in Duke Street, Grosvenor Square; but why is not the architect, Mr. Stanley Peach, given credit for it? Writing of Ruskin Park, Denmark Hill, she says "The name, which has an Art Nouveau sound about it," &c. This is a queer label for John Ruskin; he will be accused next of Whistlerian impressionism.

In the bibliography the dates of the books are given as being those of the editions consulted. Mr. H. B. Wheatley has had a long and honourable career as an author, and Mrs. Cecil draws freely on him. It is hardly fair to return evil for good by setting down in cold print that he published books in 1715, 1817, as well as 1893, &c. *Vita longa, ars brevis.*

Of the illustrations it would be difficult to say much by way of praise. Many of the plates are very crude in colour, but perhaps that is a fault of reproduction. Others are greatly out of drawing, and the sketches in line are amateurish to the last degree.

As a book of reference it will be useful, and no doubt a new edition will put right the inaccuracies which are difficult to avoid.

FOOD FOR ECCLESIOLOGISTS.

English Church Furniture: By J. Charles Cox, LL.D., F.S.A., and Alfred Harvey, M.B. 9 in. by 5½ in. pp. xvi, 397. Illustrations, 121. 7s. 6d. nett. London: Methuen & Co., 36, Essex Street, W.C.

THIS new volume in "The Antiquary's Books," of which series Dr. Cox is also the general editor, fully maintains the high repute of its predecessors. Dr. Cox is one of our ablest ecclesiologists, and he and Mr. Harvey have collected a mass of valuable information of great importance to antiquaries and architects. The scheme of the book is to deal first with the origins and uses of each item of church equipment, e.g. the altar, reredos, paten and chalice, pyx, rood-loft, font, piscina, bench, &c., then to describe the more notable or unusual types, and to finish with a list of ancient examples, classified

under counties. The whole work represents a vast amount of research and knowledge. It is of course not a difficult task to find mistakes. For example, Dr. Fryer's monograph on lead-fonts is largely drawn on, and very properly taken as the basis for the section dealing with this branch of the subject; yet the Woolhampton font, which Dr. Fryer does not give, is stated to be of lead, whereas it was destroyed sixty years ago. The splendid thirteenth-century painted chest at Newport, Essex, is described, with its band of open tracery in lead, but it should have been added that this tracery is all a restoration from a scrap at South Kensington Museum. These little defects, which will doubtless be corrected in a new edition, serve, however, but to throw into relief the outstanding excellence of a really notable compilation. The authors have done great service in setting out plainly the uses of the various fittings. We are glad they have severely dealt with the silly superstition current in most amateurs' minds, that the rood-loft in parish churches was the place from which the gospel was read. This arose from confusing the parish rood-loft with the pulpitum of monastic quires, which pulpitum, moreover, is distinct from the pulpit, and is, roughly speaking, a great loft on which an altar often stood. One very melancholy reflection is uppermost on closing this book—the fearful devastation wrought by the "restorers" of the fifties and sixties. English church architecture paid a terrible price for the gothic revival. There is a fine index of seventy-five columns, truly a pious work; but we think a valuable addition for a new edition would be a bibliography of the hundreds of monographs and papers to which reference is made.

The book has also a practical value to the practising architect, in suggesting appropriate legends for fonts, pulpits, and the like, and in giving historical authority for various unusual and eminently practical forms of church furniture and fittings, which perhaps would be more freely used if it were known that tradition supported their employment.

THE RELIQUARY.

The Reliquary and Illustrated Archaeologist: A Quarterly Journal and Review. New Series, Vol. xii, 1907. 10½ in. by 7½ in. pp. 292. Fully Illustrated, 12s. nett. London: Bemrose & Sons, Ltd., 4, Snow Hill, E.C., and Derby.

THE death of Mr. John Romilly Allen, F.S.A., until July last editor of *The Reliquary*, has left a gap in the ranks of archaeologists that will be widely felt; but Messrs. Bemrose may be congratulated on having secured the distinguished ecclesiologist Dr. Charles Cox to fill his place in the editorial chair. The volume for 1907 maintains the high standard of this publication, and covers a wide field which ranges from pure archaeology like the account of the Bronze Age Barrow at Manton to the more popular but not less able "Story of the Tobacco Pipe."

Amongst the architectural articles are "Detached Wooden Belfries," "St. Michel d'Aiguilhe, Puy en Velay," both by J. Tavenor-Perry. For the rest we are impressed by the number of papers contributed by ladies, and by their excellence. Amongst the learned societies that live at Burlington House, the Society of Antiquaries is distinguished by the title of "The Old Lady of Burlington House," and perhaps in revenge excludes the gentler sex both from its fellowship and its meetings. While we express no opinion as to this rule, it may at least be said that by their achievements ladies have established a very clear right to be considered serious students.

The Reliquary has an admirable index, but we think it needs also a table of contents giving the titles and authorship of the articles.