

THE ARCHITECTS' JOURNAL & *Architectural Engineer*

With which is incorporated "The Builders' Journal."



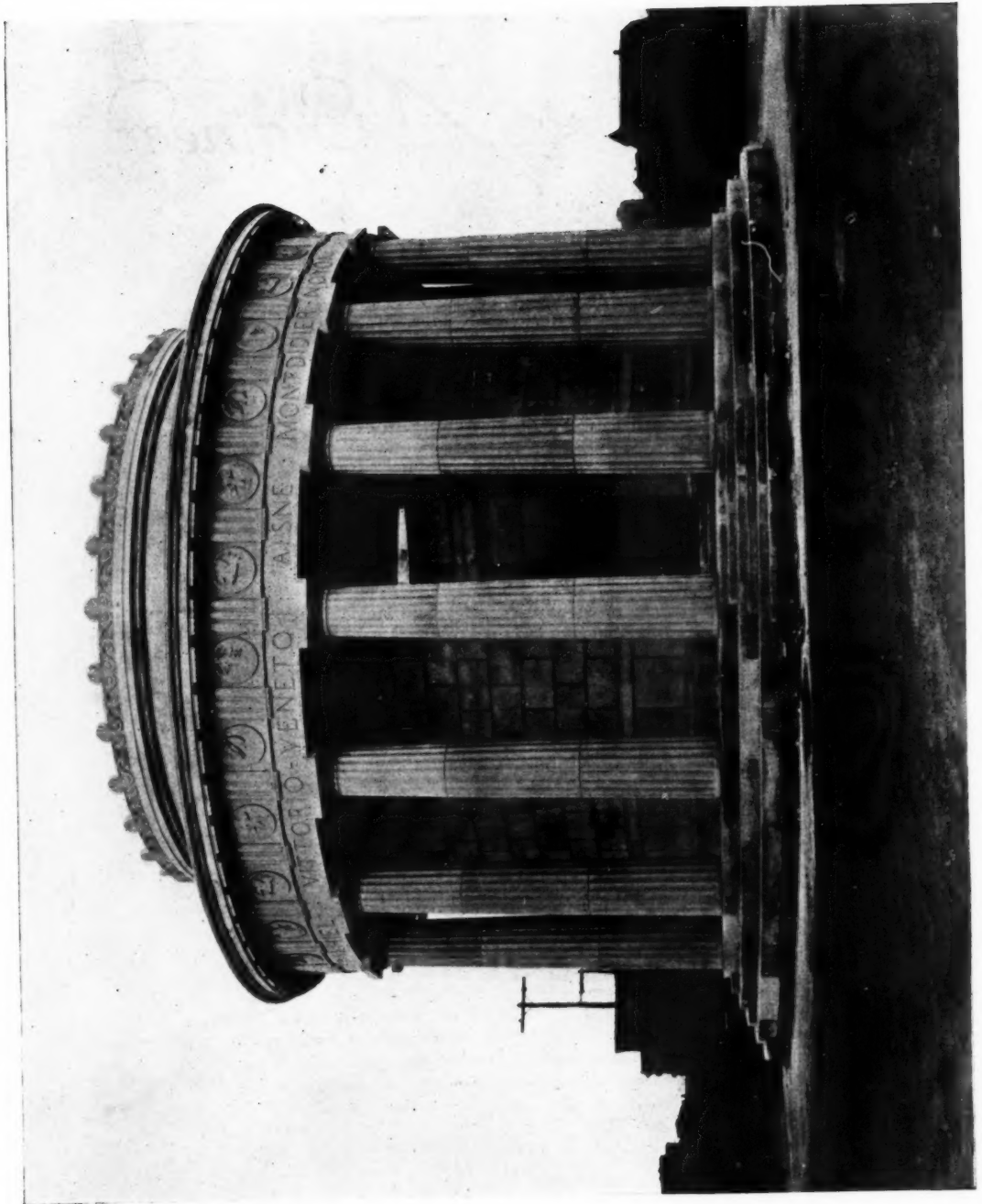
FROM AN ARCHITECT'S NOTEBOOK.

The works of Pericles were the more marvelled at, seeing that they were achieved in but a little time though they were designed for the ages. Each building at the moment of its completion had the stability of age, while in fullness of growth it was as though modern and newly created; thus a freshness still blooms upon it, keeping it in appearance unsullied by time, as if some ever-fresh breeze and unaging spirit were in its very substance.

PLUTARCH.

9 Queen Anne's Gate. Westminster.

War Memorials. 53.—Memorial in Atlantic City, New Jersey
Carrere and Hastings, Architects



An heroic bronze group is to be placed in the temple.

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THE ARCHITECTS' JOURNAL

9 Queen Anne's Gate, Westminster.

Wednesday, July 8, 1925.

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Newcastle—Past, Present, Future

THE situation of Newcastle was probably determined by very much the same kind of conditions that determined the situation of London.

The movement of peoples along the coast must be regulated by the indentations in the coast, and of these indentations there are none more decisive than those made by the great rivers. The idlest wayfarer in his search for some convenient place to cross a stream is only repeating the quest which has in so many cases, and without doubt the one in question, determined the situation of a great city.

To that never-resting movement of the Romans to the North, the Tyne in its turn offered an obstacle. Fairly wide at its mouth, and on its southern banks made inaccessible at many places by great marshes, the Romans following, as both their temper and their times demanded, their way along the high land, found the most convenient point at which to descend and cross the river that place which is on the southern side of the Tyne and known as Gateshead. Crossing the river here they found themselves on what was little more than a ledge of land lying at the base of a number of hills intersected by water-courses. These hills and these water-courses determined the lay-out of Newcastle-upon-the-Tyne.

Visitors to-day may still come down the steep slope of the side, and of Pilgrim Street, on to the flat land which fringes the river, where to-day stands the Guildhall, Trinity House, and some of the great office buildings of the city.

At the earliest times a Roman wall starting a few miles east of the city at a place now known as Wallsend, skirted the Tyne on its westward way to the Solway Firth. In those early days only a few fisherfolk can have lived huddled up on the bank of the river at the foot of the hills. Later that same flat land became densely covered with the houses of the townsfolk, built along narrow lanes locally known as "chares"—one of them some 10 ft. to 15 ft. in width, loudly boasting the name of the Broad Chare.

The Roman wall must have long fallen into disuse and decay before William of Normandy laid Northumbria in waste. By some it is said that Rufus, spying one of the hills by the ford, saw on it a fit site for a castle.

It is curious that things done so long ago as the days of Rufus should still bear the name of "new." So it is, New Forest and Newcastle are both names which come down to us from the eleventh century. The old name Monkchester is displaced by the new. Newcastle it became and Newcastle it is still.

The old walls have almost entirely disappeared. The Black Gate of later date remains to form a trinity with

a Keep and a Cathedral, which viewed down the narrow width of the Cloth Market, presents as fine a group of mediæval buildings as probably any other town.

Newcastle has had a stormy history. Though not a border town, it was always a mark for the Scots, and in Edwardian days not only Berwick but Newcastle had to be walled. Great sections of that wall still remain, unhappily not preserved as at York and Chester, though some little care and attention has been bestowed upon them in later days. Only those who seek for them will find them, but they are worth a little trouble. The Novacastrians had in the Roman wall a quarry to hand, and the great square stones laid by Roman hands in Roman mortar were used by the thrifty masons of later times to build up the walls which for nearly five centuries girded Newcastle from river front to river front.

Within the City walls Newcastle is divided into four parishes, St. Andrew, St. John, St. Nicholas, and All Saints. The old churches of St. Andrew, St. John, and St. Nicholas remain, but that of All Saints has been rebuilt in the style which Sir Christopher Wren impressed upon English ecclesiastical architecture.

In the parts of the City long given over to slumdom and now reviving under a great improvement scheme, the church of All Saints may be found perched on one of the hills round which Newcastle gathers. A fine church in its way, which would not disgrace a parish in London city, it is to those who have the time not unworthy of a visit. Nothing of much interest or note is to be found in either of the other two churches, but the lantern of St. Nicholas is the glory of ecclesiastical architecture in Newcastle, indeed, in my view one of the glories of the world. It is a miracle of poise, and one only has to be acquainted with those other efforts which have been made to set a lantern of stone on a structure of flying buttresses, to appreciate the wonder of the mason's art which still floats above the square tower of the old church. I do not know the name of the master mason who achieved it. I do not know that anyone is in possession of that information, but whoever he was he wrought a miracle when he set those stones in such equipoise upon each other.

About midway up the tower may be seen a string-course; above that string-course the tower and the lantern exist at the charge of the City Corporation. From it, I surmise, whether accurately I do not know, that it was some outburst of municipal pride which set the lantern on high.

I like to think so. I like when I read of the civic wonders of Northern Italy following upon the civic pride of the great people who throng that coast, to think that at least

some echo of their pride thrilled the citizens of Newcastle in the early sixteenth century when St. Nicholas' lantern came into being.

Newcastle is not very rich in ancient buildings, but I should not like to close this account without some reference to The Black Friars, a little quadrangle which may be found up a narrow street well within the centre of the city. Those who look at an old map of Newcastle will see that it was the convergent point of three roads, one from the west coming down from Carlisle, another from the north from Berwick and Alnwick, and one from the middle country all focussed upon the bridge across the Tyne. Few cross-roads existed between these three main roads, but running from the West Road up to the Middle Road is an old street known as the Low Friars. Still existing, but one only of its old houses remain. From it up a narrow street called Monk Street may be reached the quadrangle of the Black Friars. At one time a Monastery was here where sheltered one of the Edwards; who received there the homage of Balliol. Later it fell into the hands of the Guilds, with whom it has since remained.

The Newcastle Guilds, although as old, are not so wealthy as the London Guilds, their income is small and divided amongst a few remaining freemen. Their buildings are not magnificent, and have been preserved with not too much care.

I am still in hope that some day a Newcastle millionaire may think it worth while to spend £500,000 to restore this historic spot to something of its former state. It would make an ideal college in connection with the Armstrong College, and might be used particularly as a working-class educational centre, enabling adult working-class students to get something of that collegiate life which their more fortunate fellows are able to enjoy.

Since the Middle Ages Newcastle has been the scene of one considerable period of architectural activity. That period will be for ever associated with the name of Richard Grainger and John Dobson. In this pair an admirable combination gave Newcastle not only avenues of intercommunication which were essential to a great and industrial and commercial city, but endowed them with that grace and beauty which, when added to building, entitles it to be called "architecture." Since the days of Grainger no notable street improvement has been effected, but here and there fine buildings are to be found. Probably the greatest architect Newcastle has had since the master-mason of the lantern was Richard Johnson, who has left behind in the older portion of the Armstrong College the façade to Lloyds Bank, and the subtly graduated tower of St. Matthews, on Westgate Hill, buildings worthy of any city.

Newcastle has a great future before it. Between Edinburgh and Leeds it has no rivals. It is the centre of a great and growing population. Some of the mightiest industries in the country are gathered on its banks, and it bids fair before long to become the centre of a federated group of towns stretching from the mouth of the Tyne twenty miles up the river. Already notable schemes are in hand for regional developments. Arterial roads and new bridges across the Tyne promise to open up opportunities for industrial developments, which in their turn will tend to increase the importance of the city. There are signs that its citizens are becoming once more imbued with the spirit of their predecessors. To be a wealthy city it is seen, is not sufficient; wealth must be exhibited in the amenities of the city, in the removal of slums, the creation of new open spaces, the erection of buildings worthy of a great commercial centre. All these are becoming objects of closer attention.

Those who visit Newcastle to-day are presented with many objects of interest. To those who visit it in the future it may well be that they in their turn will become possessed of that feeling which made John Wesley in the eighteenth century regard Newcastle as being something only less fair than heaven.

HARRY BARNES.

Oxford's "House" Celebrations

More than merely local importance attaches to the two anniversaries celebrated a fortnight ago by Oxford University. Indeed, neither of them was quite devoid of architectural interest. On Wednesday was commemorated the four hundredth anniversary of the foundation of Christ Church College, or "House," as it is affectionately called by its familiars. As to the day, the celebration was a little premature, the foundation-stone of Cardinal Wolsey's college having been laid on July 16, 1625, but the celebration could not be conveniently arranged for July. Of course, the cathedral of Christ Church is much older than the college, for which it serves as a very magnificent chapel, its foundation being attributed to St. Frideswide, who died in A.D. 749, and to whom a dedicatory window painted by Burne-Jones adorns the interior. Like many another, Wolsey was merely a titular builder; and Mr. Ernest Law, whose scholarly investigations at Hampton Court entitle him to a respectful hearing on such matters, raises the pertinent question: "Who was Wolsey's architect?" Mr. Law conjectures that "Mr. Henry Williams, Priest, Surveyor of the Works at Hampton Court," was the man; the Great Hall at Hampton Court built by him being almost an exact replica of that at Oxford. This supposition Mr. Law backs by recalling that "Surveyor of Works" was the term that stood for architect down to the time of Wren, whose official designation was "Surveyor of Works." Mr. W. D. Caröe, however, seems reluctant to accept Mr. Law's theory, which rests solely on a comparison of the buildings; and the critic adds the piquant comment that if the supervisor, whosoever he was, had been more strict in performing his duties, the building might have been finished in Wolsey's lifetime, so that "Tom Tower" would not have been built by Wren.

After Wolsey, Dr. Fell, the tercentenary of whose birth was commemorated on June 23. Fell also was an architect of sorts; to him are ascribed the north wall of Wolsey's great quadrangle, and also the tower over the principal gateway, which structures are, therefore, of the seventeenth century. More worthily but less notoriously than in the hackneyed verse ("I do not love thee, Dr. Fell") the good bishop is commemorated by his name being given to the printing types which he introduced to the university. They are the oldest "founts" now in use in England. He purchased the matrices in Holland, and imported a Dutch workman to cast the types. By means of its "Fell" and other types, Oxford University Press has, in modern times, contributed as substantially to letters and learning as the university has done through its more purely academic functions. At one period housed in the Sheldonian, and thence removed to the Clarendon, the Press now occupies a huge building to which it was removed in 1830, the Clarendon building designed for it by Vanbrugh in 1713 having been outgrown. The martial parody notwithstanding, Dr. Fell was as lovable as he was learned; and if he did not himself actually build, he was the cause of much building by others.

Summer and Winter Modes

In England, as in other countries of the same latitude that are warmed and cooled by the same extremes of summer and winter, it is as difficult to design a building that shall be fit for all seasons as it is to choose a coat that can be worn at Christmas and in June. How often has it been said that the classic styles are out of place in our Northern climates, yet during the recent heat wave we noticed that even the "preposterous portico" of the National Gallery seemed as much at home as does the Parthenon in Greece. Other buildings—attired with an eye to the weather's winter moods—looked akin to the wearing of greatcoats in India. But the heat-wave came to a sudden end, and the National Gallery, with its gay pepper-boxes, and the spray of the fountains in the square blown to right and left by a cold wind, looked a little pitiful. The sadder buildings came into their own.

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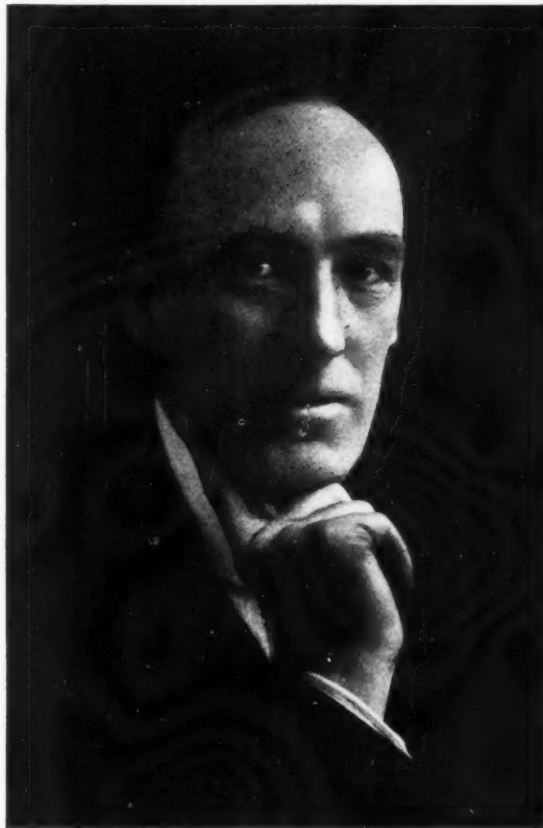
The Master Builders

By CHRISTIAN BARMAN

THE word *master* denotes a man who is something more than other men. That is the accepted etymology of the word, and that is still its meaning. The master may be raised above his fellows either by virtue of his power or by virtue of his knowledge. There is, therefore, one kind of master who rules, another who teaches. Both kinds have to-day become the subject of almost universal disparagement. With the master who once ruled us we now drive a sharp bargain for our services. As for the other sort, the phrase, "he who can does, he who cannot, teaches," lays down a

herd. Its rise since its foundation in the thirteenth century corresponds closely with the decay of teaching, for it has never had any connection with that once-important activity. And how could it have this to-day, when even our doctors have ceased to *docere*, and our very professors know scarcely what to profess? Designed to mark the first stage on the path of learning, it has risen from comparative insignificance to an undisputed yet undeserved supremacy.

It is good news, therefore, that an attempt is being made to restore the magistrature to its rightful position in at least one of our schools. The Senate of Liverpool University has



PROFESSOR S. D. ADSHEAD, HON. M. ARCH.

distinction which appears less unfair to us to-day than it did in 1903, when Mr. Shaw first gave it us in the "Revolutionist's Handbook." It was not wholly unfair even then. We dislike being ruled, we are bored by any attempt to teach us; there you have our present feeling in the matter stated very mildly.

It was not always so. In the Middle Ages the *magister artium liberalium* was held in the highest esteem. His function was to teach, and to teach was (next to fighting) the finest thing a man might do. To be a *magister artium* or an M.A. was not an empty honour, it was a badge of conspicuous civic worth. It was the goal of intellectual industry, the most exalted employment possible to the human mind. We have changed all that to-day. The Germans have abolished the degree altogether; in those countries which (like our own) still maintain its tradition it is bought and sold just like titles or any other commodity. The real crown of our educational ladder is the baccalaureate, whose name is derived from a word meaning cow-

established a master's degree which is something more than a perquisite thrown in with the baccalaureate for a small extra fee. Not only this, there is, or has been, so far as I am aware, no degree of any kind that is as difficult to earn, as peremptory in its requirements, as surely indicative of real excellence. Consider the curriculum of the typical mediæval university. It took four years to become a master in the liberal arts, seven years in law, eight years in medicine, fourteen years in theology. It takes still more—it takes fifteen years—to become a Master of Architecture in the University of Liverpool. The contrast is yet greater when we look about us at the present day. You no longer have to spend fourteen years becoming a Master (or Doctor) in Divinity; a Cambridge B.A. of five years' standing has only to submit a couple of dissertations to his professor to gain that once wellnigh unattainable eminence. To become a Master of Law he takes a paper or two in the law tripos. Perhaps the medical degree remains the most difficult to carry off, though the term of study necessary has been

reduced from eight years to even as little as five. But then these degrees have ceased to imply that grade of merit which we require from a teacher in the highest sense of the word, or from a master in the academic sense. They do not qualify their holders to enunciate a doctrine, but to practise a trade, and to this purpose they are, of course, admirably suited. So is the degree of Bachelor of Architecture, which may yet come to bear a similar relation to the architectural profession. This profession is to-day becoming recognized by the pioneers of medical research as of even greater importance to the physical well-being of the nation than that of medicine itself, its rival in academic severity. It is reasonable, therefore, that we should expect its acolytes to reach at least a similar level of knowledge and experience, that as much should be demanded of our architects as we demand of our doctors. This, I say, is reasonable, but it is something more to make architecture the instrument whereby the time-honoured title of master is given back its old significance.

When we think of it carefully, however, we shall see that it is only through architecture that this can properly be done. To restore the title in its purely academic sense is clearly impossible so long as we hold to our present views about the art of teaching. Hence it is necessary that it should be made to denote an admixture of that other mastery, the mastery of the ruler, but of the ruler whose rod is knowledge rather than strength. This quality is exhibited nowhere so clearly as in the person we call master builder, or, as I find him described in Queen Elizabeth's account books, the "deviser of buildings." Here is a kind of master who still imparts knowledge, but not merely in order to transfer this knowledge from his own mind to that of the recipient. He still rules, but not merely in order to bind his subjects together under his authority. Behind the knowledge and the authority there is the building, and neither the one nor the other has any other object than to bring this building to birth. He is,



MR. HARVEY M. CORBETT, HON. M. ARCH.



MR. THOMAS HASTINGS, HON. M. ARCH.

in fact, a master in yet a third sense, which I have not hitherto touched upon; he is a creator of beautiful and valuable things.

The Liverpool experiment was started last Saturday with the election of three honorary masters. Bold as we must deem the innovation which sought to restore the magistracy itself, the manner in which the honorary degrees have been conferred is still more novel, if not more salutary also. It is the accepted custom nowadays that an honorary degree shall be conferred only upon a person who is profoundly ignorant of the science to which the degree is attached. Thus it is *de rigueur* that a recipient of the degree of Hon. D.C.L. should be unaware of the difference between (say) a writ of sequestration and a writ of attachment. He should, of course, preferably be a soldier or a merchant; a lawyer must, should he aspire to honorary honours, be content with a D.Litt., for example, or, perhaps, a D.Phil. He will certainly be given no Hon. M. Arch., for this distinction is to be conferred upon architects alone. The Master of Architecture, whether his distinction be self-earned or *honoris causa*, will be, in fact, a master of architecture. (I hope this admirable singleness of mind will not prevent architects continuing to receive the other more promiscuous distinctions. Such a retaliatory spirit would surely be unthinkable.)

These are our new master-builders, the chosen architects of our time—or will be, for the present holders are only the nucleus of a growing body. Will these, too, be subject to the process which turns new masters into old? Is the Liverpool University to supply us in the end with old masters, or with masters fast becoming old? There seems little reason to fear that it will. The chief qualification for the title of old master appears to be that your works must be of such a kind that they can be wrapped up without difficulty in a small compass, and quickly transported from bank vault to saleroom and back again. This qualification is one to which architects will find it hard to answer. The Masters of Architecture are not likely to grow old.

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What Newcastle Owes to Dobson

By KENNETH GLOVER, F.R.I.B.A.

DURING the last thirteen years of the eighteenth century there were born John Dobson and Richard Grainger, two men who were destined to be the chief begetters of the new Newcastle. Dobson first saw the light at the Pine Apple Inn, Chirton, North Shields, in 1787. His life was spent in the architectural profession, and he is the greatest architect which the county of Northumberland has produced. Eleven years later Richard Grainger was born in High Friar Street, Newcastle. One of these men was to be the planner and the artistic genius, the other was to become the constructional organizer of the new city.

What manner of man was this John Dobson? The boy was certainly father of the man. He was only twelve years old when he was occupied in drawing patterns for a Mr. M'Glashan, a celebrated weaver in the district. Dobson's father was a man of sound judgment, and he

pupil with Boniface Moss, an Italian refugee who instructed the young architect, not alone in perspective, but in fencing and enamel painting! John Martin (the man who was later to become famous as the painter of those extraordinarily imaginative Biblical pictures) and a soldier brother of Martin's were fellow pupils. In 1810 the pupilage days came to an end, and the master advised Dobson to "set up" as architect in the town, but Dobson considered his training was insufficient, for he went off to London and sought instruction in water-colour painting from John Varley.

We may be sure it was not merely the work in Varley's studio which was of lifelong value to Dobson. In London he was at the heart of things, and he formed friendships with Turner, Hunt, Mulready, West, Robert Smirke, and many others. Sidney Smirke was, indeed, to become his son-in-law, and Dobson and he continued correspondence



JOHN DOBSON

determined to give the boy every chance to succeed in life, so that when John was fifteen he was articled to Mr. David Stephenson, who was "the leading builder and architect in Newcastle" at that time. In those days the architects of the town were builders, too. As Dobson said in an address to the Northern Architectural Association in 1859: "Fifty years ago there was no employment for a professional architect: the duties were performed by builders alone, who united to their special business the profession of an architect."

Nevertheless, many of these men were possessed of considerable taste and talent, and it is probably more correct to say that they were primarily *architects*, and that they also engaged the building labour. Prominent among these were David Stephenson, who designed the beautiful All Saints Church; Newton, the architect of the Assembly Rooms and some country houses; and Stokoe, the designer of the monumental Moot Hall.

While a pupil with Stephenson, Dobson also became a

and compared notes during their lifetime. Robert Smirke was all for Dobson remaining in London and beginning to practise there, and had he done so he would, without doubt, now occupy a more important place in the history of architecture. But he shrank from embarking on such an enterprise. Fate meant him to sow the seeds of noble architecture on more stony ground, so back to Newcastle he came.

At first commissions were naturally few and far between, but he was never idle. It has been erroneously stated that he never had the "benefit of foreign travel," but it was his custom, whenever opportunity offered, to travel and sketch in France. A man of robust health, he possessed amazing energy, and even when he had not many commissions in hand, he rose at four or five in the morning, and did not cease work till midnight. A Frenchman, whose rooms were opposite those of Dobson, would throw up his arms and exclaim: "On parle de l'homme sans ombre, mais en voici un qui ne dort jamais!"

In 1815 he sent a coloured perspective of Seaton Delaval

Hall to the Royal Academy, and, with what truth I know not, it has been stated to be the first *coloured* perspective sent there. At any rate, the drawing "brought him great praise from the Academicians." It is probable that this is an over-statement, because Turner, Girtin, and others had spent their youth in colouring architectural drawings. Perhaps Dobson's drawing went farther than the orthodox tinted representations.

In 1824 he put forward his first scheme for the improvement of Newcastle-upon-Tyne. He was not the first person to think of improvements. At least as far back as 1802 Joseph Bulmer had proposed a remodelling of the central part of the town; and it had, in fact, become a matter of somewhat pressing and progressive urgency during the first quarter of the nineteenth century. Many who heard of improvements in other cities, or who had discernment and taste, became aware that Newcastle was not advancing with the times. With that innate sense of the fitness of things which was his, Dobson put forward a moderate scheme of reconstruction; but the times were not propitious, and it was not until 1834 that Richard Grainger, the great builder, energetically took the thing in hand. He bought a large property in the middle of the

imaginative outlook, and innate constructional ability. He succeeded in infusing his designs with spirit and character suitable for the purposes to which they were to be put. It can well be imagined that an architect working in the north of England in his time was frequently faced with problems which taxed all his ingenuity and inventive skill.

Space does not permit of much more than mention of some of his most important works. In 1815 he restored Vanbrugh's Seaton Delaval Hall and added a new wing; and during these early years of his practice he remodelled several of Payne's houses, which were found draughty and uncomfortable by gentlemen who were content with fewer bottles of port than their forbears. His largest work is the Central Railway Station, Newcastle-upon-Tyne, completed in 1850. The original design was conceived on a scale of magnificent and monumental grandeur, but, owing to changes in the arrangements of the railway company, was not carried out. Considerable modifications were made, the portico being simplified (much to its detriment), the tower omitted, and the whole design recast. His daughter writes: "It was during Mr. Dobson's illness that the present portico was added, the company's architect, Mr. Prosser, having sadly to modify the original noble design."



JESMOND CEMETERY GATEWAY.

town for £50,000, and secured the consent of the Town Council to proceed with the scheme. This property had formerly been the gardens of a nunnery. Dobson's original plan was not carried out, but its main lines were adopted, with the result that we see to-day.

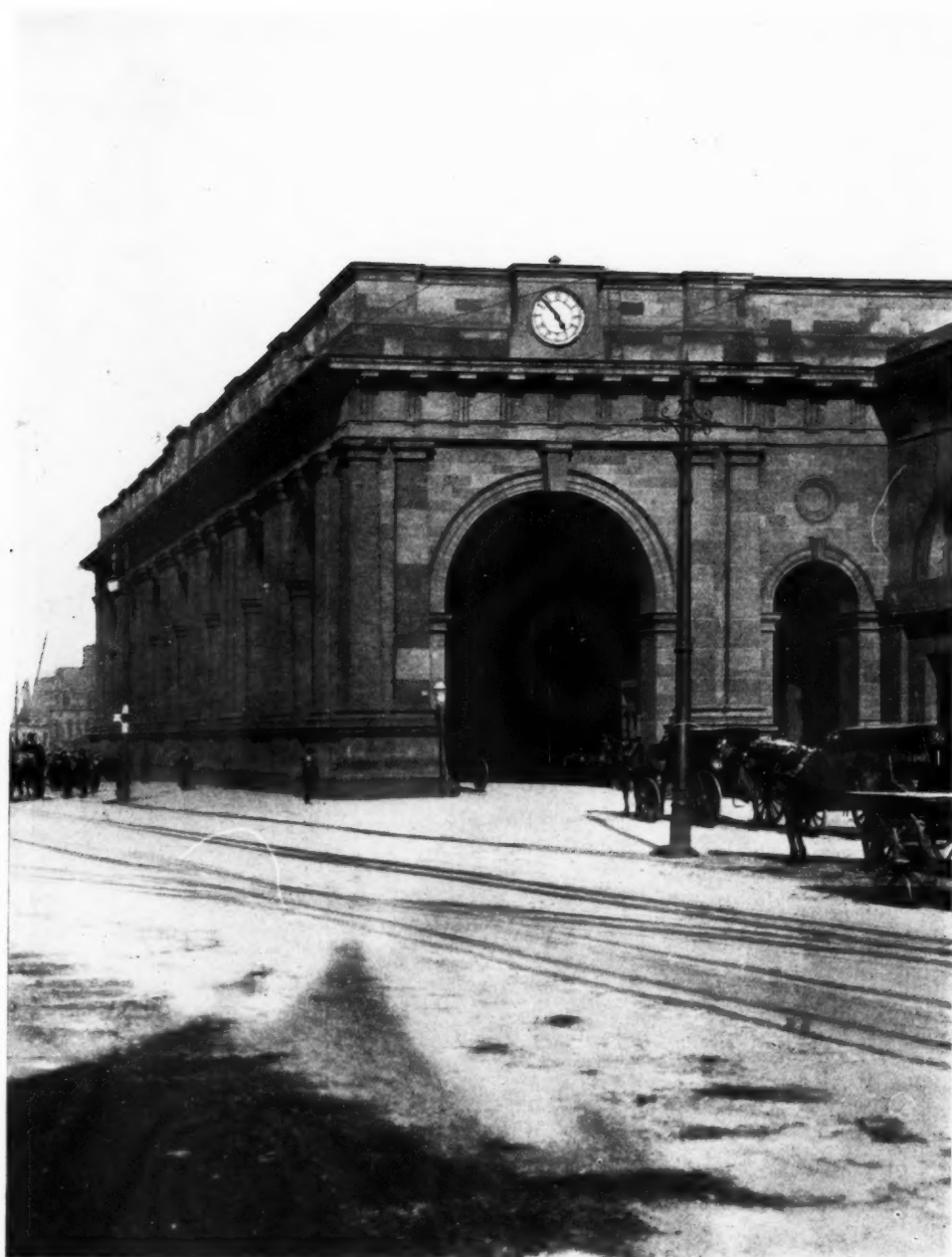
Contemporaries of Dobson at this period were John and Benjamin Green, George Walker, and Wardle, and all these men were responsible for individual buildings erected by Grainger. Walker and Wardle were employed in Grainger's office, and appear to have been supplied by Dobson with designs for every change of architecture in the frontages of the new streets. Dobson personally designed the important buildings and the general façade of most of the streets. It was wisely and fortunately decided to adopt the classic style for the new streets of the town, and for the rebuilding of premises, so that Newcastle presents an appearance of architectural unity to a very much greater extent than do many English cities. By about the end of 1840 nearly the whole of the improvements were completed.

John Dobson was spared many more years of activity, for his death did not take place until 1865. He was a man of infinite resource, untiring energy, sane, logical, and

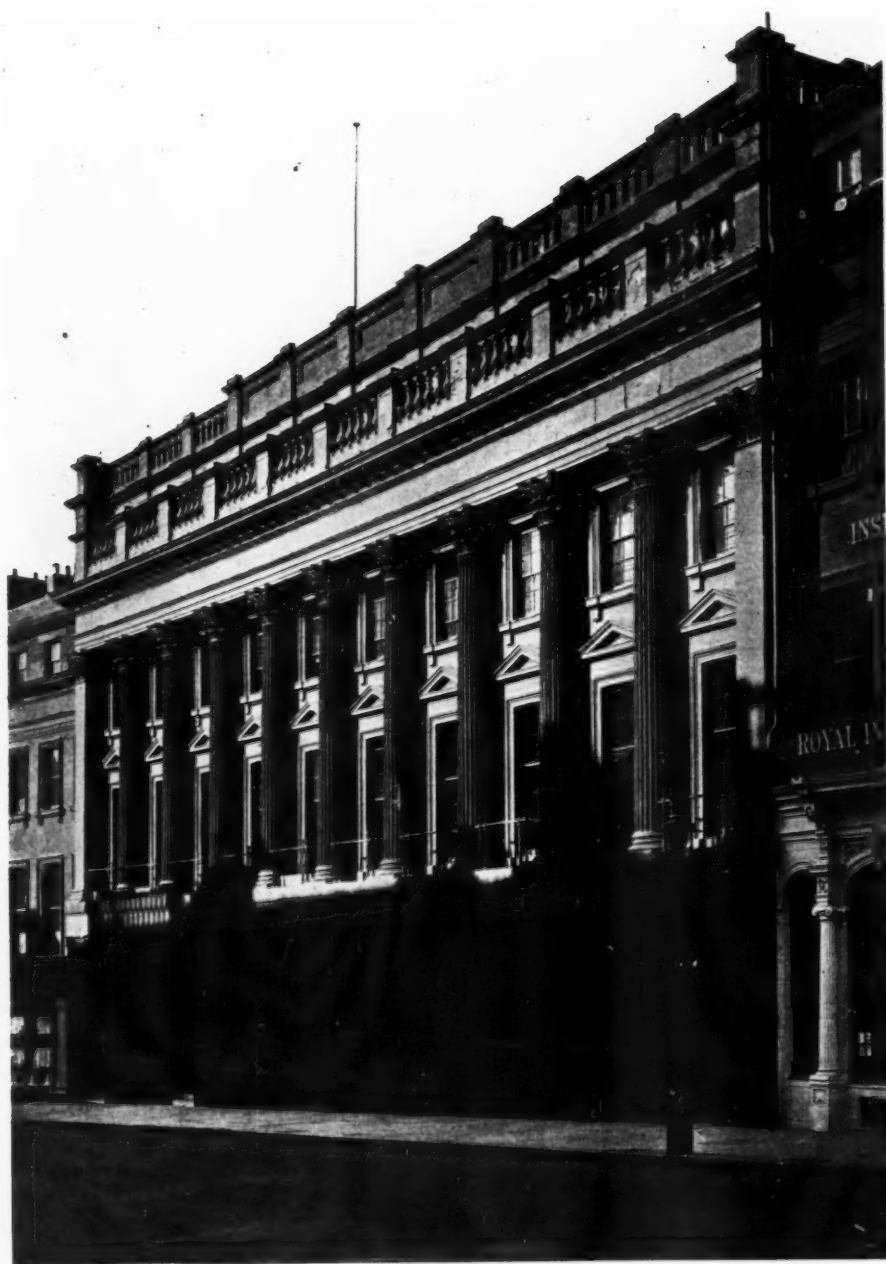
The building is notable for the magnificent curve of the interior, the curve motif being repeated in the arcaded wall and in the roof, which was one of the earliest with curved iron ribs. Externally the elevations retain, in spite of modifications, much of a noble simplicity, fine scale, and monumental dignity.

Dobson was responsible for the design of most of Grey Street, Grainger Street, Clayton Street, Nun Street, Eldon Square, Market Street, St. Mary's Place, and many other blocks. The magnificent arcade at the foot of Pilgrim Street displays his genius at its best; here, as in the Jesmond Cemetery entrance, is shown his careful skill in adjustment of balance of parts, the selection of appropriate ornament, the refinement of mouldings, and the elimination of all superfluities.

In general he perhaps erred, if at all, in a tendency to heaviness; but it must be remembered that he had to cut his cloth to suit the purse of his employers, and he chose surely the soundest basis upon which to work in adopting a style which, by its essential elements of serenity, repose, scale, and refined modelling, was most likely to produce works of art destined, by none of the tricks of the "fashionable" architect, to withstand the criticism of posterity.



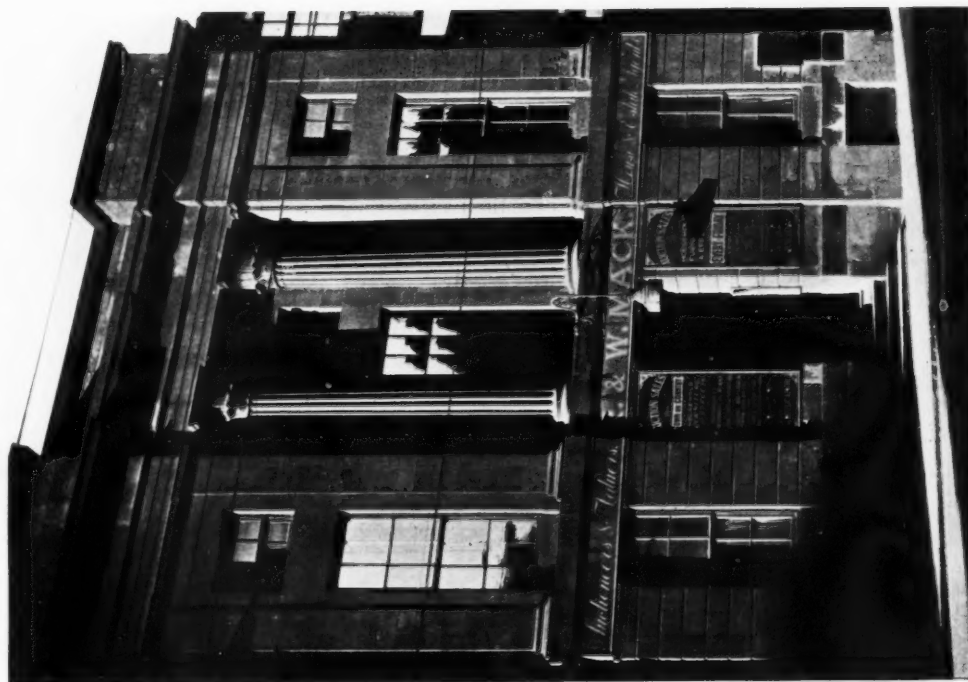
NEWCASTLE CENTRAL STATION: THE PORTICO. JOHN DOBSON, ARCHITECT (1853).



PART OF BANK OF ENGLAND, GREY STREET.



THE ROYAL ARCADE;



THE ACADEMY OF ART.

The Newcastle Conference

Notes from the Programme

THE headquarters of the Conference will be the Old Assembly Rooms, Westgate Road, Newcastle.

The Committee of the Pen and Palette Club, 7 Higham Place, Newcastle, have opened their rooms to all members of the Conference during the visit.

On the day of arrival (Wednesday, July 8), a smoking concert will be held in the evening in the Old Assembly Rooms, Westgate Road. Members will be the guests of the

coast to Seaton Delaval Hall, returning to Armstrong College for tea.

The alternative programme will consist of local visits to the keep and black gate, the cathedral, the Guild Hall, the Trinity House.

An exhibition of the work of the School of Architecture will be on view at Armstrong College, and a short criticism of the work of the students will be given by Mr. Maurice E. Webb, chairman of the Board of Architectural Education.



Northern Architectural Association and will be welcomed by the President of the Association.

On Thursday, July 9, the Conference will assemble for the Inaugural meeting at the Old Assembly Rooms, Westgate Road, at 10.15 a.m.

Alternative programmes are open for the afternoon. The Tyne Improvement Commissioners have placed their launch, the *Sir William Stephenson*, at the disposal of the Conference for a trip down the river to Tynemouth Priory, etc. Members will embark at the quayside and sail down the river to the fish quay at North Shields, where they will be met by chars-à-bancs. They will then visit Tynemouth Priory and continue the journey along the Northumberland

In the evening, at the banqueting hall, Jesmond Dene Road, Jesmond Dene, a civic reception by the Lord Mayor and Corporation of Newcastle-upon-Tyne will take place.

On Friday, July 10, a visit to Durham will be made. On arrival at Durham, members will proceed to the Town Hall, Market Square, and be received by His Worshipful the Mayor of Durham.

Members will assemble at the cathedral (south doorway) and will be conducted over the buildings by Professor Hamilton Thompson. Members of the Conference will be the guests for lunch of the President and Council of the Durham colleges, in the lecture halls, Palace Green. Members will assemble there for a group photograph. An

inspection of the castle under the guidance of Mr. W. T. Jones, F.S.A., will follow immediately after the photograph has been taken. Tea will be served in the lecture halls, Palace Green.

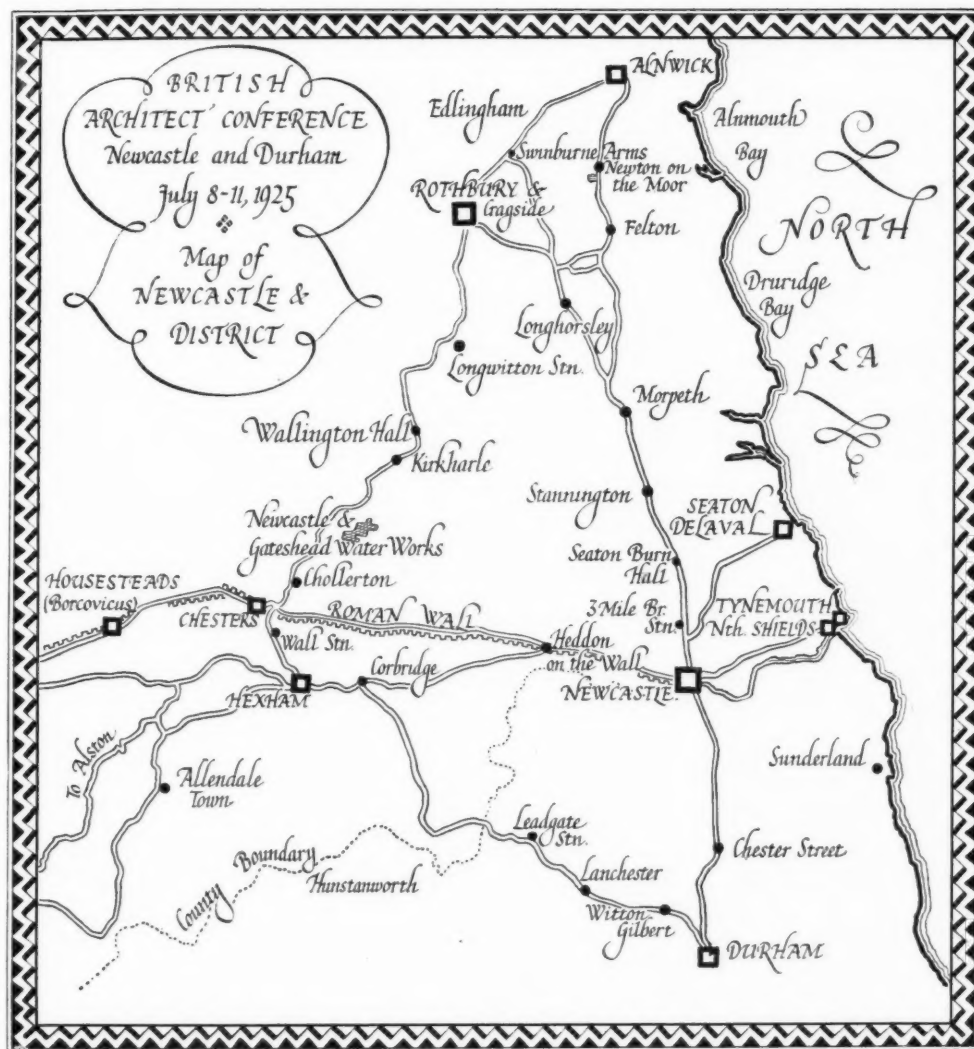
There are many points of interest in Durham, e.g. Elvet Bridge, Crook Hall, Kepier Hospital Gateway, Neville's Cross, Finchale Abbey (now undergoing preservation by the Office of Works), Maiden Castle. Churches: St. Oswald's, St. Margaret's, St. Giles's, St. Mary-le-Bow. An opportunity should be taken to visit the "Banks."

In the evening the Conference banquet in the Old Assembly Rooms, Westgate Road, will take place. The guests will be received by the President of the Royal

original plan. In 1822 the main building was reduced to a ruin by fire, but the two wings were saved.

The Norman Keep is the most famous of the local "sights." It is a rectangular structure, with a fore-building on its east side. The walls are of colossal strength, being in the lower part from 15 ft. to 18 ft. thick.

The Black Gate is supposed to be named after one Patrick Black, a local magnate, who lived about 1617. It was formerly the main gate to the castle. It is believed to have been built by Henry VII in 1247. It has suffered from the restorers and from decay, and in the middle part of the eighteenth century part of it fell and was patched up with brickwork. It is the lower part which is old. No



Institute of British Architects and the President of the Northern Architectural Association.

On Saturday, July 11, informal excursions will be made to Alnwick Castle, Cragston and Rothbury, and to the Roman wall (Chesters, Housesteads, etc.), Hexham Abbey.

Any members staying in the North over the week-end and desirous of visiting Carlisle and the Lake District can be conducted by members of the Cumberland Branch of the Northern Architectural Association.

Some brief notes upon the various places of excursion in and near Newcastle may be of interest. Seaton Delaval Hall, one of the finest of north-country mansions, is about one mile from the sea. It was built in 1707 by Vanbrugh. The west wing, which at present contains the principal apartments, was burnt down in 1752, but rebuilt on the

trace remains of its double portcullis and drawbridge.

Trinity House, up a "chare" off the Quayside, houses some fine old pictures and relics of the sea.

St. Nicholas' Cathedral dates back to the middle of the fourteenth century, but the tower and steeple were built about the middle of the fifteenth century. This steeple, says Rickman, is the type of which there are various imitations: the best known are St. Giles's, Edinburgh; the Church at Linlithgow; the College Tower at Aberdeen; and its modern imitation by Sir C. Wren at St. Dunstan's-in-the-East, London; but all these fall far short of the original.

The total length of the interior of the Cathedral is 245 feet. The three stained-glass windows on the north side are in memory of the officers and men of the Northumberland Fusiliers and other local regiments.

Modern Newcastle-upon-Tyne

Some Examples of Recent Work

NEWCASTLE has not provided us with new buildings in "the latest manner" like other large provincial cities. Down town—the quayside, where the money is made—the old buildings are still doing duty, though many have had their "internal organs" renewed, and here and there a new "scalp" in the shape of new dormer windows or an attic story. Up town and the "Civic Centre"—where part of the money is spent—practically the same conditions prevail; at intervals a new narrow front is found, and in two of the principal streets—Grainger and Clayton Streets—practically a complete sweep of the lower stories, where brand new shop fronts in the "very latest" shopfitters' manner now ruin the architectural value these two thoroughfares ever had. Even Grey Street has been tackled in places in the same manner; and ere long will rank with the others. Not content with these "improvements," the dignified façades are utterly ruined by the indiscriminate use of letters of sorts hung all over the buildings. Electric signs and the flicker business also invade the district.

The obvious reason for all this is that shops and stores have no use for continuous façades, and the answer would seem to be then, pull the old buildings down and give us another "Regent Street" for what it is worth!

Externally the design of the "Civic Centre" has architectural merit, and the south end is a good composition.

The various banks and insurance companies all did the modern "corner site business" years ago, and we have to-day many buildings—very black—of considerable architectural merit.

In Pilgrim Street there are two interesting modern Renaissance façades—Nos. 109 and 129—faced in glazed terra-cotta ware. Both suffer from the restriction in height of the stories, for economical reasons, and the demand for

wide windows to give the maximum daylight. These two factors do not give that relation of void to solid that we expect to find in interpretations of works of the Renaissance.

At No. 47 Pilgrim Street we have an insurance building with an arcade form to the lower story, with columns above running through two stories, carrying an entablature with attic story over. The ends of the façade have been treated in pylon fashion. As a composition in a continuous street frontage it is successful, but the working out of the various parts could be improved.

Just off Pilgrim Street, looking down New Market Street, we see a good deal of blank land—soon, we hope, to be covered by new buildings. The recent building here is a motor showroom—without its top stories as yet. Here the demand for the very maximum of daylight seems to have dictated the clothing of the steel frame with stone in the usual more or less satisfactory way.

We now make a detour along Market Street and part of Grainger Street to Newgate Street, where we find a new building for a firm of auctioneers. The façade is built of white glazed terra-cotta. There is an arcade to the lower story and two upper floors treated architecturally as one unit. Looking on the angle the composition would have been much improved if the return frontage of the front building to Low Friar Street had been another bay in width. Nevertheless, it is very satisfactory, and the detail, though heavy, has been very carefully worked out. The handling of the essential advertisements is very successful.

From Newgate Street to Westgate Road, the recent building here is Blenheim House, Westgate Road. Here we find the offices and workrooms for a local tobacco factory. This is the typical modern city problem. The façade, finished in Portland stone, has the two lower stories in strongly marked horizontal courses to minimize

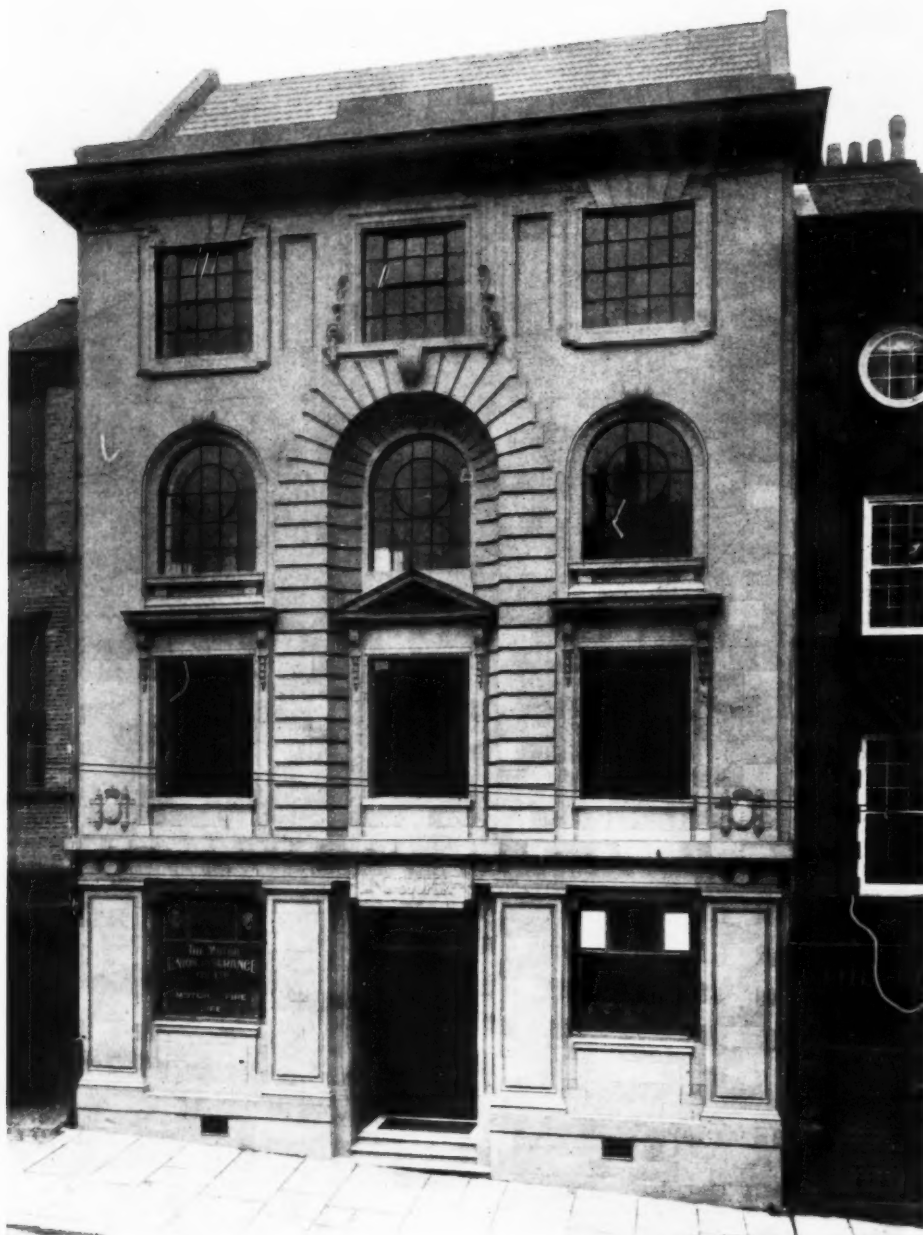


ARMSTRONG COLLEGE STUDENTS' UNION BUILDING, COLLEGE ROAD, NEWCASTLE-UPON-TYNE.

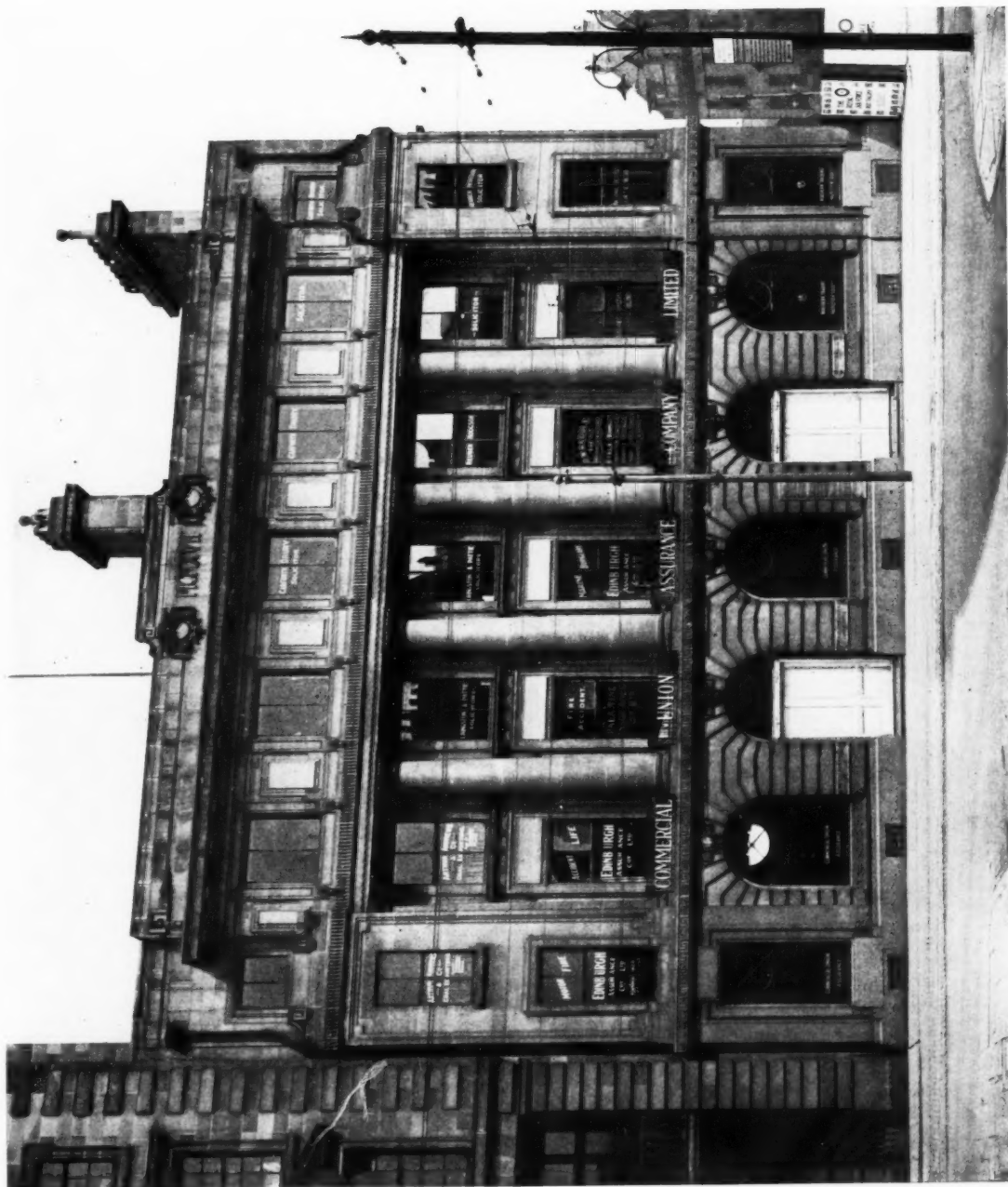
CAKETT AND BURNS DICK, F.F.R.I.B.A., ARCHITECTS



RIVER TYNE COMMISSIONERS' OFFICES, NEWCASTLE UPON-TYNE.
W. H. WOOD, F.R.I.B.A., ARCHITECT FOR THE ADDITIONS.



PREMISES FOR MESSRS. I. J. AND G. COOPER, NEWCASTLE.
MARSHALL AND TWEEDY, F.F.R.I.B.A., ARCHITECTS.



PREMISES FOR THE COMMERCIAL UNION ASSURANCE COMPANY, LIMITED.
MARSHALL AND TWEEDY, F.F.I.B.A., ARCHITECTS.

the disturbing effect of the small windows to individual rooms, which, owing, no doubt, to definite planning requirements, could not be placed symmetrically throughout. The upper stories have deep pilasters carried through three floors, crowned with capitals that appear somewhat heavy; above is an exaggerated entablature taking the fifth floor. There is an attic story above, with dormers appropriately placed, but these are not seen to advantage from the street below. At each end of the front the end bays are treated as broad piers, terminating the design in a satisfactory manner. It is a pleasure to find the name of the owners neatly set out in good bronze letters along the lower frieze. The adoption of this principle has everything to commend it. The only jarring note in the whole composition is a series of coloured pictures of sorts inserted into the lower panes of the ground-floor windows. As the metal bars have had to be removed, it is safe to assume that this advertising device was inserted at some later date after the designers had left the building.

In Bewick Street (opposite the Central Station) are the offices of the Tyne Commissioners. The lower portion of the building, designed by R. J. Johnson, shows the usual charming detail associated with his work. The upper stories were added at a comparatively recent date, to meet the ever-growing needs of the commissioners' activities. These additions, of course, destroy the original pleasing composition, but have been carried out satisfactorily. The only criticism one can make is that it might have been

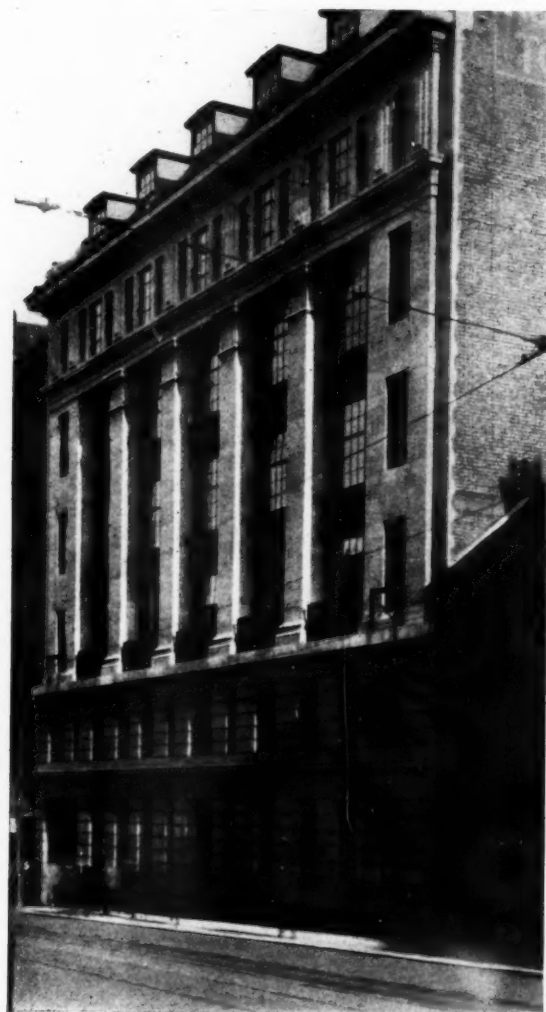
better to remove the lower cornice and so eliminate the duality of the final composition.

We must now make our way up through the town to Armstrong College, where we find the most concentrated collection of recent buildings. I should say, as we approach by College Road, that we are entering the seat of learning at the back. The principal front is to Queen Victoria Road, but owing to the exigency of town planning, the college rejoices in having its "front at the back." In College Road, before passing through the "back gate"—which is a very delightful archway, by the way—there is a new building on the left—The Students' Union. The design is in the Tudor manner, with some later touches in the porch; the crowning balustrade and the clock tower. The treatment is broad and simple, harmonizing with the rest of the college, and the materials used, viz., sand stocks with Portland stone dressings, will, in time, improve the general effect. The setting will also be better when the ground in front has some grass; and it is interesting to note that the usual railing enclosure has been omitted. There is no doubt that by this omission the general appearance is much enhanced.

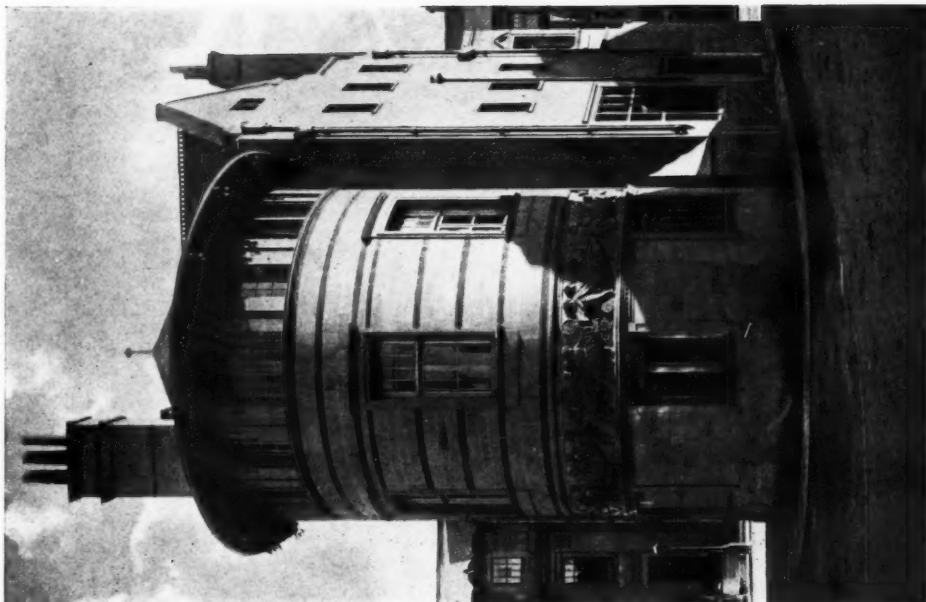
On the left of the gateway there is a new building containing the "business end" of the college, steam and power boilers, and experimental engines. The façades of this building are appropriate for their situation, and fit in with the other works. The natural result of a collection of steam boilers of sorts is a chimney, and here we have a brand new one, 120 ft. high, plain and unadorned, until it reaches the



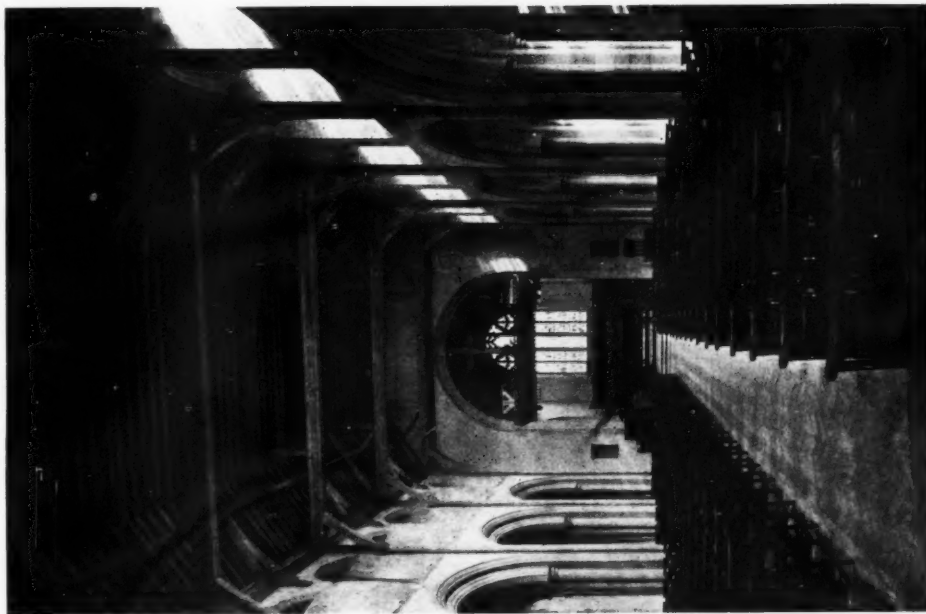
PREMISES FOR I. WOOLF AND SONS.
M. K. GLASS, F.R.I.B.A., ARCHITECT



PREMISES FOR THE ROBERT SINCLAIR TOBACCO CO.
CACKETT AND BURNS DICK, F.F.R.I.B.A., ARCHITECTS.



BANKING PREMISES, HEXHAM.
GEO. DALE OLIVER, F.R.I.B.A., ARCHITECT.



THE MEMORIAL CHURCH OF THE HOLY TRINITY, JESMOND
HOARE AND WHEELER IN COLLABORATION WITH HICKS
AND CHARLEWOOD, ARCHITECTS.



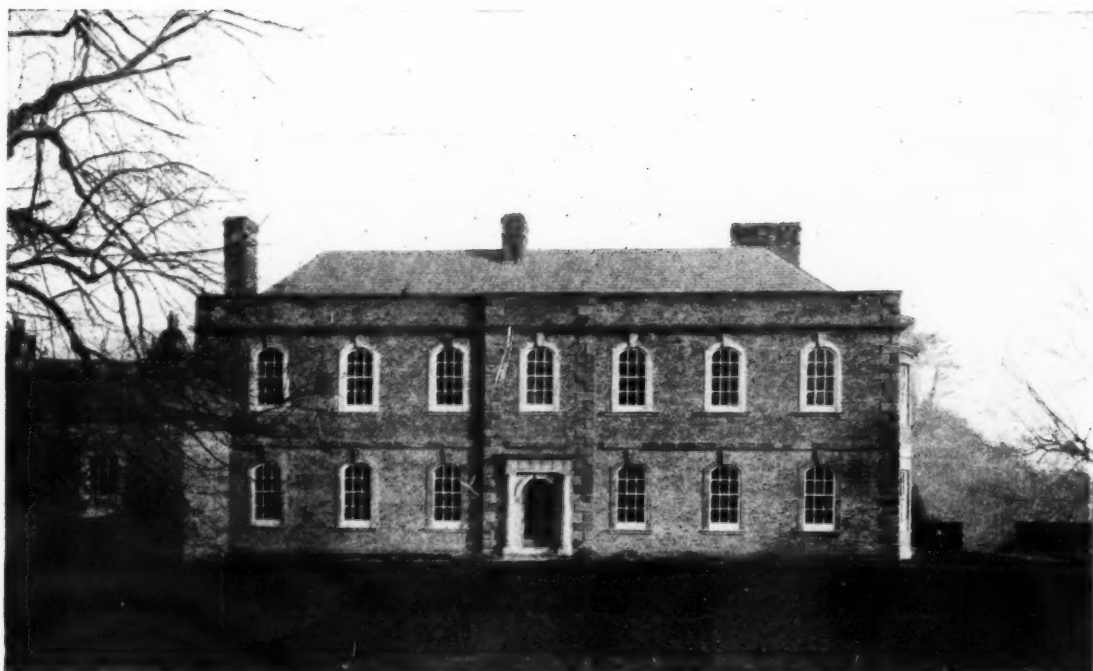
A DOCTOR'S HOUSE AT FENHAM. MAUCHLEN AND WEIGHTMAN, ARCHITECTS.



JOSEPH STRAKER MEMORIAL HALL, CORBRIDGE-ON-TYNE.
CAKETT AND BURNS DICK, F.F.R.I.B.A., ARCHITECTS.



"WHITTON," ROTHBURY, NORTHUMBERLAND MAUCHLEN AND WEIGHTMAN, ARCHITECTS.



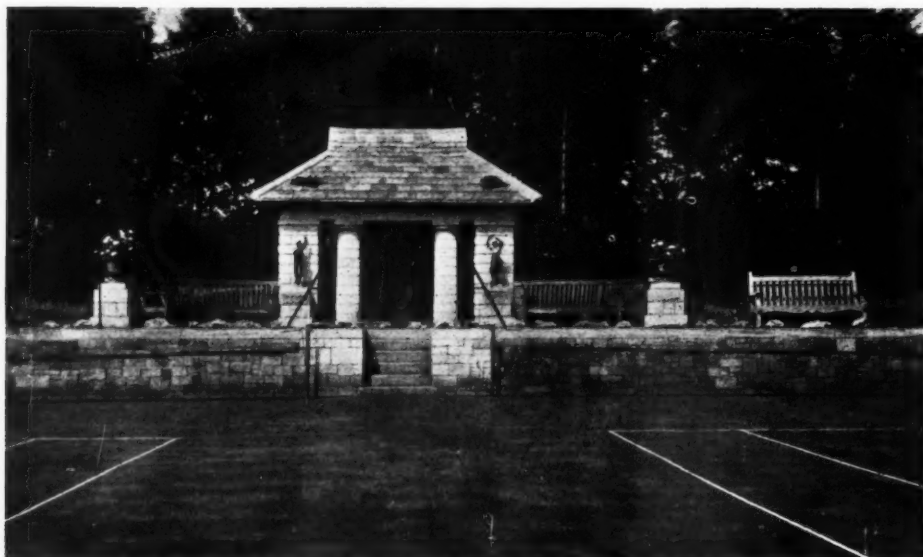
FALLODON : THE GARDEN FRONT. G. REAVELL, F.R.I.B.A., ARCHITECT.



HEDGELEY HALL G. REAVELL, F.R.I.B.A., ARCHITECT.



QUEEN ELIZABETH GRAMMAR SCHOOL, PENRITH.
HARRISON AND ASH, FF.R.I.B.A., ARCHITECTS.



TENNIS PAVILION, HOWDEN DENE, CORBRIDGE-ON-TYNE.
 CACKETT AND BURNS DICK, F.F.R.I.B.A., ARCHITECTS.

top, where it is finished with a cornice and cope, with "lozenges" lower down.

Inside the gateway we have a new bacteriological building, adjacent to and carrying on the type of very late Tudor design of the agricultural building. The proportions are not too happy, but there is some interesting carving round the windows and doorway.

The new library is not yet complete, but it is sufficiently advanced to say that in its broad handling and careful selection of materials a distinctive and reposeful building has been erected. The bay windows are handled in the domestic manner of the Elizabethan houses, and are distinctive from similar features in the older buildings opposite, where they are worked into class and lecture-rooms.

The college has also built a sports' pavilion at their recreation grounds in the suburbs. It is an interesting design, with tiled roof and extensive columned verandas.

The gable in the centre of the principal façade marks out the large tea-room on the upper floor. There is also a lounge on the ground floor, and there are four double sets of dressing-rooms, each with baths and lavatories attached, besides kitchen, service accommodation, workshops, and a groundsman's house.

At the end of Jesmond Road we find Holy Trinity Church, completed since the war, with tower and spire, as a war memorial. It is built of local stone, including the spire, and the design leaves little to be desired. Inside there is a very wide nave with side aisles. The piers are built of stone and the roof is open timber construction. The windows are all completed with very interesting stained glass.

In the city there are three recent memorials. In Eldon Square the city memorial will be found. It is a very successful group, and is the work of Charles Hartwell, R.A. At the open space at St. Thomas's Church are two memorials; one by Sir Goscombe John, R.A., shows a large group of figures symbolizing "The Response" to the call to arms in 1914. Its situation is not too happy, and it would have been more effective in an architectural setting, such as the wall of the church would have provided.

The other monument, to the 6th Battalion Northumberland Fusiliers, is the work of John Reed, A.R.C.A., and reflects great credit on the sculptor.

Of recent domestic work in the neighbourhood, it is pleasing to note a distinct improvement in design.

Of housing schemes there is the usual outcrop on the now very familiar standardized lines. An interesting and

effective group of dwellings was erected by the Sutton Trust on the site of some slum property in Barrack Road.

There is a considerable amount of recent work throughout the County of Northumberland; and where opportunity has been given, it is pleasing to find that the designers and the craftsmen have risen to the occasion, when funds permitted.

Such works as Whitton Grange, Corbridge Hall, etc., show a distinctive quality which gives that interesting North Country note, reflecting credit on all concerned.

Following are some further notes on the buildings illustrated in the preceding pages.

ARMSTRONG COLLEGE. STUDENTS' UNION BUILDING.

CACKETT and BURNS DICK, F.F.R.I.B.A., Architects.

This building (page 50) is situated in College Road. It has four main floors, containing offices, lounges, reading and writing rooms for both sexes, committee rooms, luncheon rooms, tea rooms, and a billiard room. On the lower ground floor there are lavatories and baths. A debating hall will be added at the rear of the building at some future date. The kitchen is situated on the first floor and the cooking arrangements have been thought out with a view to dealing with a maximum demand with the utmost economy. The servery is on the second floor. Provision is made in the basement for the supply of light refreshments. The installation is capable of providing 1,500 meals per day.

The general contractors were Messrs. Stephen Easton, Ltd., Newcastle, who also executed the special woodwork, and the sub-contractors were as follows: Val de Travers, Ltd. (asphalt); Gibbs Brothers, Loughborough (bricks); F. J. Barnes, Ltd., Isle of Portland (Portland stone); The Kleine Patent Fire-resisting Flooring Syndicate, Ltd. (fireproof floors); Haywards, Ltd. (casements); W. R. Cairns, Newcastle (lead-down pipes); The Bromsgrove Guild, Ltd. (special R.W. heads); T. G. Usher & Co., Newcastle (electric work); W. Ferguson and Son, Newcastle (fibrous plaster); Metro-Vick Supplies, Ltd. (electric light fixtures); N. F. Ramsay & Co., Newcastle (door furniture); M. Aynsley and Sons, Ltd., Newcastle (gates, etc.); Rowells, Ltd., Newcastle (terrazzo); Smith, Major and Stevens, Ltd. (lifts); Henry Walker and Son, Ltd., Newcastle (heating and ventilating); William Potts and Sons, Ltd., Leeds (clock and bell); Newcastle-upon-Tyne and Gateshead Gas Co. (cooking appliances); M. Aynsley and Sons, Ltd., Newcastle (cloakroom fixtures).

TYNE COMMISSIONERS' OFFICES.

W. H. WOOD, F.R.I.B.A., Architect.

The illustrations on page 51 show the alterations that have been carried out. The roof and attic story were removed, two new stories were inserted and the attic and roof were replaced, the work of the offices being carried on during these works. The foundations were also strengthened by means of R.S.J. grillage and concrete with solid steel columns, of 9 in. diam., carried up to assist the walls in taking the extra load. In the new stories the cross walls are of reinforced concrete, as also is the backing to the stone facing. The flooring is of 1½ in. grooved and tongued boarding nailed to concrete, and mosaic on landings. Stair treads are of stone.

The general contractors were Messrs. Stephen Easton, Ltd., Newcastle-on-Tyne, and the sub-contractors were as follows: Blayter Quarries, Northumberland (stone); Henry Walker and Sons, Newcastle (marble chimney-pieces); Indented Bar and Concrete Engineering Co. (reinforced concrete construction); Henry Walker and Son, Newcastle (stoves, grates, and mantels). Mr. Easton was his own sub-contractor for all trades.

THE COMMERCIAL UNION ASSURANCE COMPANY, NEW BRANCH.

MARSHALL and TWEEDY, F.F.R.I.B.A., Architects.

The new branch office for the Commercial Union Assurance Co., Ltd. (page 53), stands in Pilgrim Street, Newcastle-upon-Tyne. The elevation to Pilgrim Street is of Darney quarry stone, and the base up to the ground-floor sills is of Aberdeen red granite. The facings in the areas and the basement are of Lumley white glazed first quality bricks, and the rear walls and gables are of white unglazed bricks. The whole of the floors are of ferro-concrete covered with wood blocks, and those of the corridors and staircases are covered with marble and terrazzo. An express passenger lift communicates with each floor. The Commercial Union Assurance Co. occupy part of the ground floor, and they have a separate entrance from the street. Their offices are fitted with oak panelling and decorated fibrous ceilings. The staff lavatories and cloak-rooms are in the basement and owing to the slope of the site from front to back these are constructed entirely out of the ground, thus avoiding areas.

The foundations were carried out by Mr. Thomas Lumsden, Jarrow, and the superstructure was executed by Messrs. Alex. Pringle, Ltd., of Gateshead. The lift was installed by Messrs. Waygood Otis, Ltd.

MESSRS. I. J. AND G. COOPER'S PREMISES.

MARSHALL and TWEEDY, F.F.R.I.B.A., Architects.

This building (page 52) has been erected in Pilgrim Street, Newcastle-upon-Tyne, for Messrs. I. J. and G. Cooper, Ltd., of Manchester, warehousemen. The front elevation is faced with "Marmo." The building extends to a depth of 182 ft. and consists of a basement and four floors. A portion of the front and the top floor has been let off as commercial offices.

A lift communicates with each floor. The contractors were Messrs. W. Hall, Ltd., Gateshead-on-Tyne. The "Marmo" for the front elevation was made by Messrs. Burmantofts & Co., Ltd., of Leeds, and the lift was supplied by Messrs. Smith, Major and Stevens, Ltd.

BLenheim HOUSE, NEWCASTLE-UPON-TYNE.

CAKETT and BURNS DICK, F.F.R.I.B.A., Architects.

Blenheim House (page 54) has been erected in Westgate Road, Newcastle-upon-Tyne, for the Robert Sinclair Tobacco Co., Ltd. It consists of six floors, with a basement and an attic story in addition. The two lower floors contain the offices, and the other floors are devoted to factory purposes. The aspect is north.

The general contractors were Messrs. Stephen Easton, Ltd., Newcastle-upon-Tyne, and the sub-contractors were as follows: F. J. Barnes, Ltd., Isle of Portland (Portland stone); Mouchel-Hennebique System (reinforced concrete construction and fireproof floors and partitions); George Wragge, Ltd., Manchester (casements and casement fittings and gates); R. W. Cairns, Newcastle (plumbing and sanitary work, heating and ventilating); Rowells, Ltd., Newcastle mosaic decoration and marble work; Pickerings, Ltd., Stockton-on-Tees (lifts and cranes).

52 WESTMORELAND ROAD.

M. K. GLASS, F.R.I.B.A., Architect.

This building (page 54) is of brick and steel construction, wood floors, rock asphalt flat roof, and steel windows. The front walls are rendered in cement with Atlas White finish. In designing the building an attempt has been made to obtain an effective façade in an economical manner and at the same time to obtain the maximum amount of light to the showrooms and workrooms.

The general contractor was Mr. H. Waller, of Byker, Newcastle-on-Tyne, and the sub-contractors were as follows: Williams, Gamon & Co. (Kaleyards), Ltd., Chester (casements and casement fittings); C. Doyle, Gateshead (electric wiring). The Atlas White Cement was supplied by the Adamite Co., of Regent House, Regent Street, W.

THE MEMORIAL CHURCH OF THE HOLY TRINITY, JESMOND.

HOARE and WHEELER, in collaboration with HICKS and CHARLEWOOD, Architects.

This church (page 55) is built almost entirely of stone. Most of the stone was obtained from the Windy Nook quarry but some of it was from the neighbouring Kenton quarry. Architecturally the church might be called a modern edition of fourteenth-century Gothic. So far as the method of moulding the stones and building them into the places where they lie is concerned, as well as the details of the tracing and carving, the traditions of English Gothic are carried on, but the fact that the plan is modern, as applied to a parish church, has caused many deviations from what is usually found in fourteenth-century building. The narrow Gothic nave with side aisles is not so convenient as a nave wide enough to contain all the sittings. Therefore the aisles are reduced to the width of gangways and all the sittings are in the nave, which is built of sufficient width for the purpose. This fact influenced the design of the arcade, which has semi-circular arches. The west end of the church is completed by a tower and spire. The belfry contains one bell, and apart from that the tower is chiefly valuable as a ventilator. To ventilate the church an electric motor and fan are placed in the belfry and chamber above. By this means the air which is admitted to the church through inlets in the aisle window-sills is extracted through the ceiling of the roof and carried along a duct up the tower and passed out through the windows of the belfry and spire. Thus, although not a window in the church can be opened the air is changed four times an hour. In the base of the tower is the baptistry, which contains a square font, of Barton fossil stone. The design is early in character, suitable to the nature of the stone. A striking and unusual feature of the church is the series of stained-glass windows designed and worked by Mr. A. K. Nicholson.

The builders were Messrs. J. and W. Lowry, Ltd., of Newcastle, and the sub-contractors were as follows: Ralph Hedley, Newcastle (carved choir stalls); Appleby, Newcastle (carved screens and rood beam); W. D. Gough, London (carved font cover, lectern, and cross); Beall and Son, Newcastle (font); Henry Walker and Sons, Newcastle (heating and ventilation); Robson and Coleman, Newcastle, Ramsey and Son, Newcastle (metal work).

MIDLAND BANK, HEXHAM.

G. DALE OLIVER, F.R.I.B.A., Architect.

The site of this building, an island one, in the Market Place, Hexham, was acquired by the Carlisle City and District Banking Co., Ltd., and branch premises were in course of erection for that company when they were taken over by the Midland Bank, at that time known as the London and Midland Bank, Ltd. The plans were then remodelled and a rather more ambitious design was adopted. The whole of the ground floor is used for banking purposes with other accommodation in the basement, and a separate entrance was provided to the offices on the upper floors. The walls are of white stone obtained from a local quarry, with red bands sparingly introduced, and the roofs are covered with green slates from Westmorland. A feature of

the design is the carved frieze executed by Mr. Bankhart. The contractors were nearly all local tradesmen. The building is illustrated on page 55, and was erected about thirty years ago.

JOSEPH STRAKER MEMORIAL HALL, CORBRIDGE.

CAKETT and BURNS DICK, F.F.R.I.B.A., Architects.

This hall (page 56) has been erected to the memory of the late Joseph Straker, of Corbridge. It is situated in the village of Corbridge. The building contains a main hall, with a gallery and platform, ladies' and gentlemen's rooms, a small library, billiard room, and recreation room.

The general contractors were Messrs. Stephen Easton, Ltd., Newcastle, and the sub-contractors were as follows: Broseley (roofing tiles); J. France and Sons, Newcastle (tiling); R. W. Cairns, Newcastle (plumbing and sanitary work, heating and ventilating).

WHITTON GRANGE, ROTHBURY.

MAUCHLEN and WEIGHTMAN, Architects.

The house (page 57) stands on an attractive site, overlooking the village of Rothbury and the Coquet Valley. A small mid-Victorian house originally stood on this site, but this was taken down and its only pleasant feature—the coursed stone wall—reused in the new house. The contours of the site are largely responsible for the lay-out of the garden, the ground rising steeply from the south-west and north-west. The walls are of local stone and the roof is covered with "Precilly" slates. The niche over the south entrance doorway is now filled with a cast lead figure representing Paulinus, a father of the Church, who is especially identified with Northumbrian history in this part of the county. The figure was modelled by Mr. R. Mauchlen, of Mauchlen and Weightman. The ruins of a sixteenth-century "Bastel" house or pele have been preserved in the garden. The position of these ruins considerably influences the planning and lay-out. The equipment of the kitchen quarters is to the architect's special design. The ground floors are oak-boarded, and the joining to the staircase and the principal rooms is in English oak. Local stone was used in the building.

The general contractors were Messrs. Muckle and Sons, Rothbury, and the sub-contractors were as follows: Davies Bros., Portmadoc, North Wales ("Precilly" slates); H. Hope and Sons, Ltd. (casements and casement fittings); Smith and Wellstood, Bonny Bridge, Stirlingshire ("Sidelight Wellstood" range); Bewley and Scott, Dunston-on-Tyne (special woodwork, staircase, panelling, chimney-pieces, etc., in English oak); Falconar, Cross & Co., Newcastle-upon-Tyne (electric light fixtures); Capel & Co., London (electric generating plant); Diming and Cooke (heating apparatus); Backhouse Nurseries (York), York (shrubs and trees and planting to architect's designs).

HEDGELEY HALL, ALNWICK.

G. REAVELL, F.R.I.B.A., Architect.

The wing illustrated (page 58) is part of an extensive alteration and rebuilding scheme which was carried out for the late Colonel Carr-Ellison. Two wings were added and the interior was reconstructed considerably. The interior is finished in oak in the entrance hall and staircase; and with mahogany doors in the principal rooms, with the remaining woodwork white. Both wings are carried out in stone with both floors in fireproof construction. The stone was obtained from Shepherd's Law, a local quarry. Some fine eighteenth-century marble mantelpieces were obtained from Hebburn Hall, an old mansion belonging to the family, now surrounded by Tyneside works.

The general contractors were Messrs. R. and G. Brown, Amble, Northumberland, and the sub-contractors were as follows: Kleine Flooring Co., Ltd. (fireproof floors and partitions); Stanley & Co., Nuneaton (wall ties); Henry Hope and Sons, Ltd., Smethwick (casements and casement fittings, and stained glass and leaded lights); Shanks & Co., Ltd., Barrhead, Glasgow (sanitary ware and fittings); Jos. F. Ebner, Stewart Street, E.14 (flooring); Lea and Warren, London (electric wiring); Bromsgrove Guild, Ltd. (plaster work); Henry Walker and Son, Newcastle-on-Tyne (heating apparatus). The eighteenth grates from Hebburn Hall reconditioned by

Messrs. Emley and Sons. Yorkshire stone flags are used for the roof of the west wing and Ballachulish (Scotch) slates for the kitchen wing.

FALLODON HALL, NORTHUMBERLAND.

G. REAVELL, F.R.I.B.A., Architect.

The original building was entirely destroyed by fire with the exception of the dining-room and kitchen and wing, and it has been rebuilt for the Right Hon. Viscount Grey, K.G. The exterior is faced with bricks from the old building. Much of the old stonework has also been reused. The plan and general grouping are entirely new and are worked in with the kitchen and servants' rooms, which were not largely affected by the fire. The roofs are covered with Westmorland slates, with asphalt gutters and flats. Floors throughout are in oak blocks, staircase and landing are in oak. The bricks saved from the old building and reused in the new one were specially made on the estate for the eighteenth-century house. The stone is local, and the dining-room and kitchen wing are still faced with stone. The building is illustrated on page 58.

The general contractors were Messrs. R. and G. Brown, of Amble, and the sub-contractors were as follows: Armstrongs and Main, Ltd., Glasgow and London (steel work); Kleine Flooring Co., Ltd. (fireproof floors); Buttermere Green Slate Co., Ltd., Westmorland (slates); Henry Walker and Sons, Newcastle (grates); Sopwith & Co. (mantels); James Wood, Alnwick (plumbing and sanitary work); Shanks & Co., Ltd. (sanitary ware and fittings); E. B. Burgess & Co., Liverpool (wood block flooring); Falconar, Cross & Co., Newcastle (electric wiring); H. H. Martyn & Co., Ltd., Cheltenham (plaster work and staircase); Allan Bros., Ltd., Renwick-on-Tweed (doors); Tonks (Birmingham), Ltd., Birmingham (door furniture); Henry Walker and Son, Newcastle (heating apparatus).

QUEEN ELIZABETH GRAMMAR SCHOOL, PENRITH.

HARRISON and ASH, F.F.R.I.B.A., Architects.

This school (page 59) is placed on elevated ground above the town, and near to the railway station at Penrith. It faces south. The assembly hall and art department are on the north side of the building. The school accommodates 100 boys and 100 girls in separate departments, and the assembly hall, science rooms and art rooms, are common to both. A domestic science room used also as a school dining-room, with caretaker's house adjoining is placed on the girls' side of the building. Provision is made for future extensions to accommodate a further 25 boys and 25 girls. The walls are of stone finished with white cement rough-cast, and having Lazonby stone dressings. The roof is covered with thick rustic Westmorland slates in diminishing courses and has a stone ridge and hips. The turret is of Rangoon teak with lead covering.

The general contractors were Messrs. Joseph Brown and Sons, Penrith, and the sub-contractors were as follows: Northern Asphalte Co. (asphalt); Leeds Fireclay Co. (glazed bricks); Arthur O. Thoms, Lancaster (local sandstone and Lazonby stone); H. H. Martyn & Co., Ltd., Wheatfield Street (Lazonby carved stonework); British Reinforced Concrete Engineering Co., Ltd. (fireproof floors, partitions); Buttermere Green Slate Co., Ltd. (Westmorland rustic slates); Northern Asphalte Co. (flats); T. Altham and Son, Penrith (stoves, grates, mantels); J. Dixon, Ltd., Penrith (plumbing and sanitary work); W. B. Buxton (sanitary ware and fittings, and gates, railing, etc.); Joseph Brown and Sons (flooring); Ecliptic Gaslighting Co., Nuneaton (gasfitting and gas fixtures); Messrs. Dunning and Cook, Newcastle (heating apparatus); Shorland & Co., Manchester (ventilating apparatus); Hetherington Bros., Penrith (bells); James Gibbons, Ltd., Wolverhampton (cloakroom fixtures); North of England School Furnishing Co., Ltd., Darlington (furnishing).

TENNIS PAVILION, HOWDEN DENE, CORBRIDGE.

CAKETT and BURNS DICK, F.F.R.I.B.A., Architects.

This pavilion (page 60) is situated in the grounds of Howden Dene, Corbridge, the residence of Mr. T. D. Straker-Smith. It has been erected of local stone by the local builder, Mr. J. Davison.

The Rome Scholarship in Architecture, 1925

ON the recommendation of the Faculty of Architecture of the British School at Rome the Commissioners of 1851 have awarded the Rome Scholarship in Architecture for 1925 to Mr. G. A. Butling, a student of the School of Architecture of the University of Liverpool. On the recommendation of the same body the Royal Institute of British Architects have awarded the Henry Jarvis Studentship for 1925 to Mr. C. A. Minoprio, also of Liverpool University.

The Rome Scholarship, which is the highest distinction offered in this country to the architectural student, is open to all British subjects of less than twenty-seven years of age. It is offered by the Royal Commission for the Royal Exhibition of 1851, and the competition is conducted under the direction of the Faculty of Architecture of the British School at Rome, on whose recommendation the award is promulgated. The Henry Jarvis is a R.I.B.A. Travelling Studentship to the value of £250 a year for two years, awarded to the first associate or registered student of the R.I.B.A. who is placed next in order to the winner of the Rome Scholarship.

The subject for this year's Rome Scholarship is a permanent bridge pavilion of Fine and Industrial Art in an International Exhibition to be held in a foreign capital. The site chosen for this pavilion is in a public garden at the terminal point of a boulevard 200 ft. wide. A roadway 150 ft. wide separates the park boundary from the building running each side of the boulevard, and the building site is situated 300 ft. behind this boundary. The pavilion is surrounded by a form of garden about 75 ft. wide, and is to be approached from the point opposite the boulevard by means of a dignified and properly laid-out entrance.

The chief apartment in the pavilion consists of a great hall or covered garden for sculpture, about 300 ft. long by 150 ft. wide, covered with a glass roof. This hall is surrounded by a range of galleries arranged for two floors, those on the first floor being devoted to the exhibition of paintings and drawings, and those on the ground floor to furniture, tapestries, pottery, and similar products of

industrial art. The ground floor includes besides a restaurant and the usual offices.

It is specifically said in the conditions that the building should be of such a character to render it conversant with the dignity of the great nation whose works of art it is intended to display, and that its design should afford opportunities of sculptural and painted decoration distinct from the individual exhibits.

A Criticism of the Drawings

The subject was a fairly simple one, involving no minute subdivision of planning, and the two successful designs are undoubtedly those which have treated it with the greatest breadth and deliberation, and given it an elevational expression which, if not strikingly original, is full of that "dignity" which the programme demanded. Some of the other competitors appear to have misread "the gaiety of the nation" for "the dignity," but not so with these. The chief problem of planning consisted in the relative disposition of the entrances, the restaurant, and the grand staircase. The chief elevational problem was the correlation of the dominating shape of the sculpture hall with the surrounding galleries. Mr. G. A. Butling, the Rome scholar, places his restaurant on the long axis of the building, and balances it with an excellent staircase rising in a straight series of flights. The glass roof of the sculpture hall is in the form of a flat, elliptical barrel vault bounded by masonry tympana, its length being divided by broad solid rings. Like most of the designs from the Liverpool School, the elevations of the main part of the building are of the traditional English art gallery type, recognizable at a glance, in whatever part of the globe we imagine them erected. Foreseeing, no doubt, the possibility of his design being unsuccessful, he has provided, on the lower ground floor, an immense room dedicated to the storage of waste paper. Unlike some of the other competitors, he does not appear to have thought a separate carriage entrance necessary.

The Janis scholar, Mr. C. A. Minoprio, has placed his restaurant on one side of the entrance vestibule, and his administrative apartments on the other, undoubtedly a less happy arrangement than Mr. Butling's. The "access for large sculptural groups" suggested in the programme he introduces on his short axis, so that the flank of the building has a small projecting terrace reached by means of a ramped roadway. Mr. Minoprio's is not the most imaginative of the designs submitted; the lay-out in front of his building is rudimentary, and he has succeeded in all but concealing the presence of the sculpture hall from the view of a person approaching the building, for it rises only a few feet above the surrounding portion. But the skill and suavity with which he handles his façades are remarkable, almost as remarkable as his draughtsmanship.

Next to Mr. Butling in juniority comes Miss Joanna Macfadyen, of London. Her design is a very entertaining example of the twentieth century Gothic revival in architecture. It is almost entirely Scandinavian. The roof over the sculpture hall follows the lines of a pointed arch. A row of minuscule sculpture niches dots the façade; below them runs one of the few motifs of other than Swedish origin, a series of those long, nautical-looking slits of windows made familiar to us by the German illustrated reviews. Miss Elsie Rogers, of Manchester, has an equally elongated shape for her roof, but this time reminiscent rather of the elliptical outline of some recent ferro-concrete aeroplane hangars. Her design is unusual, and certainly not devoid of interest, being conceived in a manner suggestive of art-nouveau jewellery, and resplendent with the viridian and ultramarine of coloured enamels. Miss Macfadyen, by the way, has placed both her bands in the restaurant, an arrangement which might easily bring



MR. G. A. BUTLING: THE WINNER.

bankruptcy upon the *entrepreneurs* entrusted with the catering. The fault is not so much hers as that of an ill-arranged and carelessly worded programme (a very old complaint this. Programme-writing is an art of considerable difficulty). The ambiguous passage runs: "On the ground floor there will also be a restaurant opening on to the sculpture hall where two handstands will be placed." Whether to interpret this as a desperate threat or a pleasing promise is evidently the candidate's own affair.

The most interesting among "modernist" designs is undoubtedly that of Mr. Reginald Willis, of Manchester. The roof of Mr. Willis's sculpture hall is of a cruciform shape and light construction, the semi-circular vaults terminating in tympana pierced with a large glazed opening. The internal steelwork is left bare, and is, on the whole, very well managed. He affects glazing bars somewhat in the well-known Chicago manner, but they are handled with considerable discretion. Like most of the designs of the same persuasion, Mr. Willis's exaggerates the importance of the sculpture hall, which affords such a fine opportunity for ambitious roof designs. The enlarged roof is one of the conspicuous features of neo-Romantic architecture, and, like most conspicuous features, it is apt to get just a little tiresome. Perhaps Mr. Minoprio was right after all; still, Mr. Willis has done his very well.

N. N.

Mr. MacDonald at Liverpool

Mr. Ramsay MacDonald, opening an exhibition of the Liverpool School of Architecture on Saturday, said he came because he represented that section of democracy which hungered and thirsted after spiritual peace and beauty.

They were engaged sometimes in strenuous fights for political rights and economic possessions, and yet they knew quite well that, however successful they might be in those conflicts, riches without beauty was poverty, and possessions without spiritual content was nought. As background to their work and agitations there was that beauty in form and spirit in life which the Liverpool School of Architecture was doing so much to embody.

The kingdom of architecture, unless they excepted music, was first of all the arts. It certainly was to the town-dweller the most intimate of the arts. His streets, his houses, his factories never changed. To those who cared for comfort and happiness and the uplifting of the minds of the mass of town dwellers, they must repeat with ever-increasing emphasis that architecture was the most intimate of the arts, and if they wanted to surround their people with influences that compelled them to go up and up they must put beauty into their streets and inspiration into their homes.

If architecture was merely to provide shelter for the body of man, then the cheaper and uglier would perhaps be the more efficient box. If it was not man's body that required habitation, but man's mind and soul, then the architect was not doing his duty in such circumstances, but simply providing shelter. The training of the architect did not end with knowledge of the composition of bricks and stone and how to deal with dry rot. It must be training to grasp the life and spirit of art. They wanted architects who would reveal the absolutely beautiful. It was not bulk, but spirit. No man could build a house for man unless he understood man. The success of the architect was to hide his material in his idea, so that when they approached a house or a cathedral the spirit alone was revealed and not the material. It was a profound mistake for an architect to imagine that when he was engaged in the production of small domestic architecture he had not the same chance as if he was planning a great town hall. There was no such thing as an individual house. If an individual house was put in a street one would see that individual house in relation to the street. The beauty of domestic architecture must belong to town-planning. When an architect built a house he built it not in a street but in a setting.

The problem of architects engaged in domestic work was not to put nice little decorations on nice little houses where nice little people might come to dwell and nice little children might play on nice little pianos. Domestic architecture should embody the communal spirit. Town halls, churches, public buildings, should be planned as a beautiful unity. The day would come when architects would know their business, and in order that they might know it the public should give them sufficient encouragement.

The Creation of Three Masters of Architecture

In presenting Professor Adshead and Messrs. Thomas Hastings and Harvey W. Corbett for the degree of Master of Architecture, Professor Reilly said:—

MY LORD AND CHANCELLOR,—The University of Liverpool has founded a new degree of Master of Architecture. It is the first degree of its kind in Europe, and is only to be given to those who have built worthily. The three architects who have been chosen to be the first recipients of the degree are not only architects who have enriched the world with their buildings, but who have had a great influence for good on the work of the Liverpool School of Architecture. First among these is Stanley Davenport Adshead, Master of Arts of this University, and the first holder of its Chair of Civic Design. Professor Adshead has done more than any living man to guide the renewed movement for Town Planning in this country along hopeful lines.

In the name of the Senate and Council I present to you STANLEY DAVENPORT ADSHEAD for the degree of Master of Architecture, *honoris causa*, of this University.

MY LORD AND CHANCELLOR,—The second external influence on the Liverpool School of recent years has been the great modern architecture of America. Of this architecture by his Bush buildings, both in New York and in London, and by his other fine buildings, Harvey Wiley Corbett, Doctor of Laws, Master of Arts, and Professor of Design in Columbia University, has been a great exponent. In offering him the new degree of Master of Architecture the Liverpool School is acknowledging a debt of gratitude.

In the name of the Senate and Council I present to you HARVEY WILEY CORBETT for the degree of Master of Architecture, *honoris causa*, of this University.

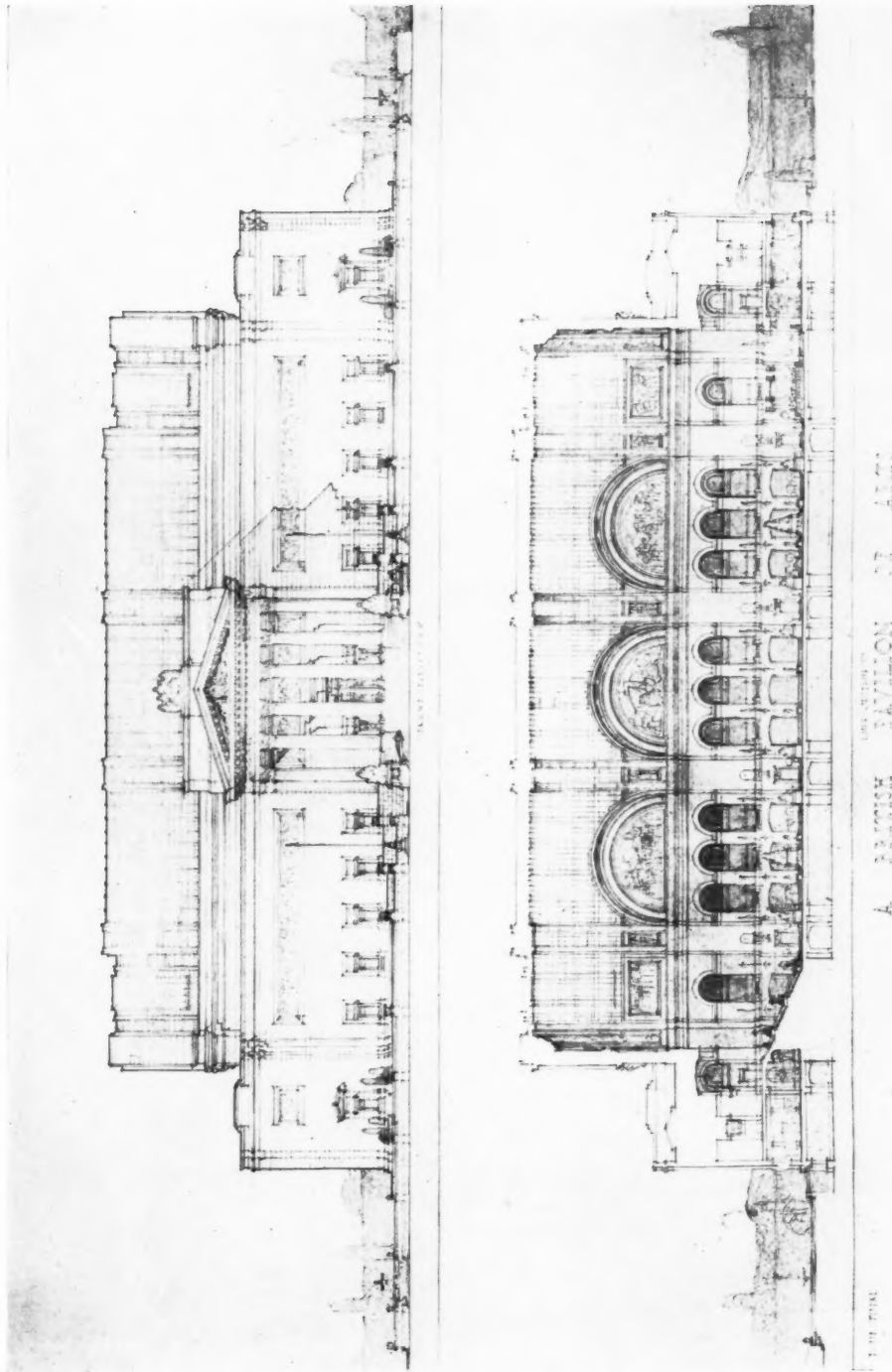
MY LORD AND CHANCELLOR,—Thomas Hastings, Doctor of Laws of many universities, late member of the Fine Arts Commission of the United States of America, Gold Medallist of the Royal Institute of British Architects, the designer of the Arlington Memorial of the Senate of Congress offices in Washington, of the New York Public Library, of the American Monument of the Battle of the Marne in Paris, and of many great and monumental structures, is the *doyen* of the American Architects. Liverpool University honours itself in honouring him with its new degree.

In the name of the Senate and Council I present to you THOMAS HASTINGS for the Degree of Master of Architecture, *honoris causa*, of this University.

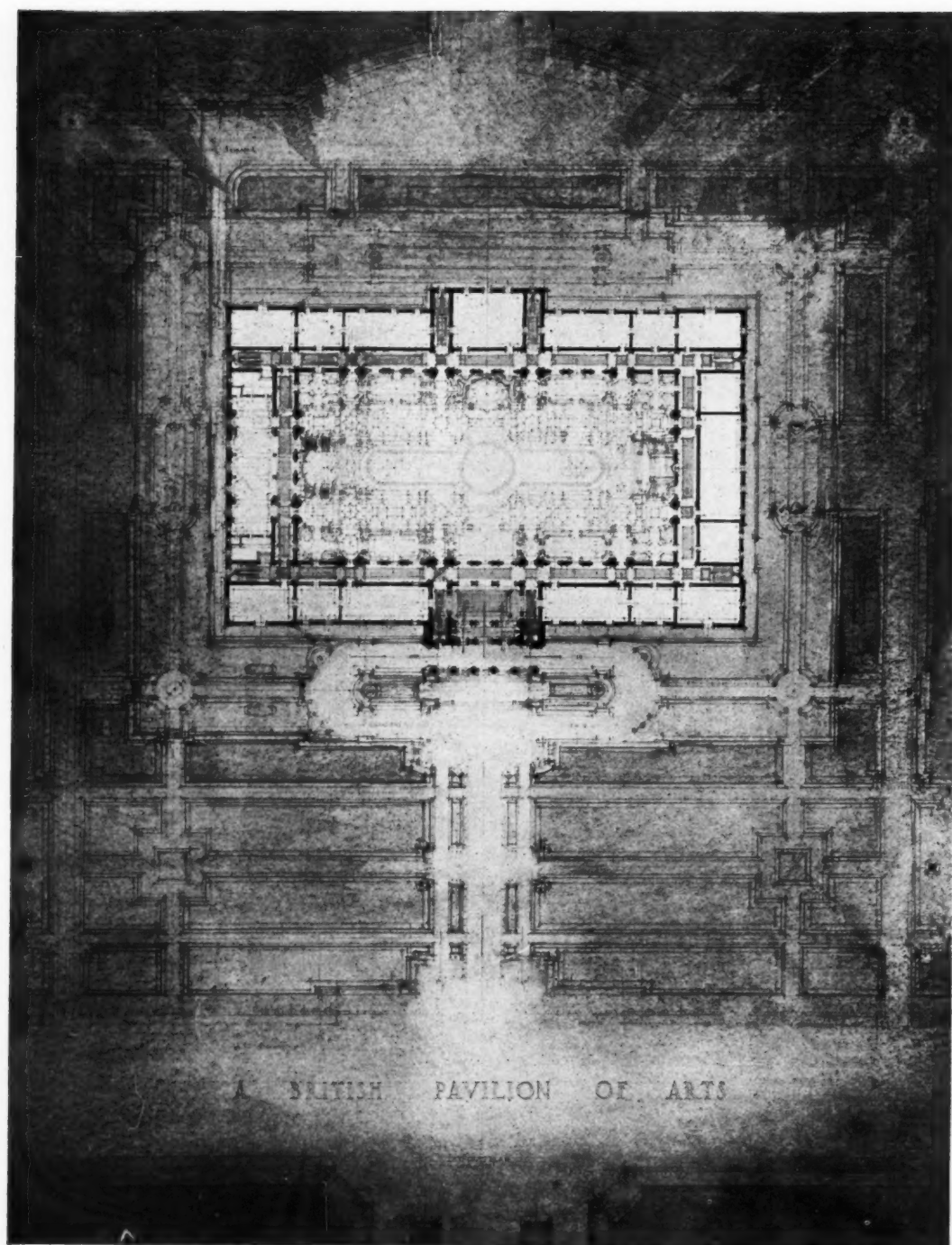
Obituary

Mr. Vincent Craig.

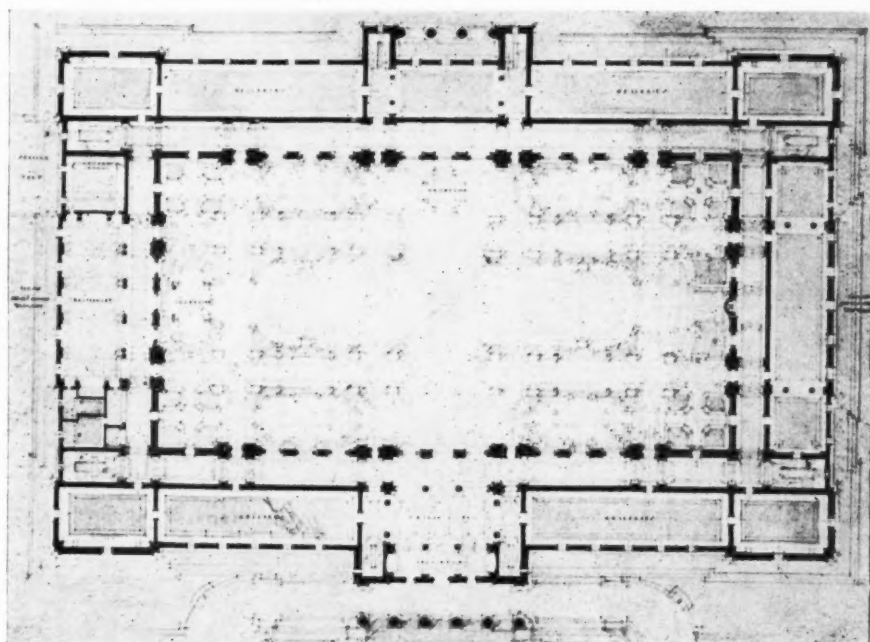
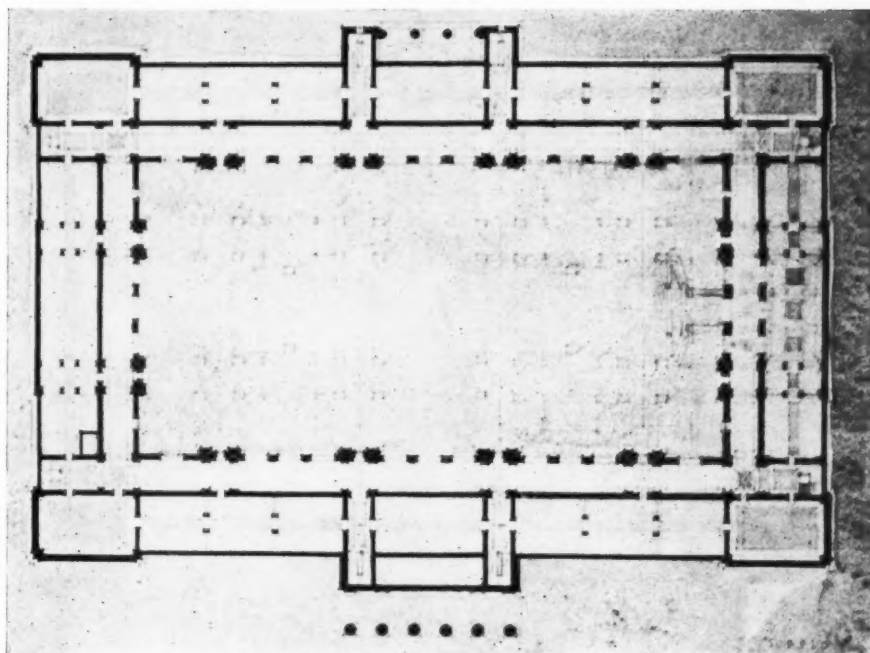
We regret to record the death of Mr. Vincent Craig, elder brother of the Right Hon. Sir James Craig, Bt., Prime Minister of Northern Ireland, and of Captain the Right Hon. C. C. Craig, M.P. Born at Strandtown in 1866, he was educated at Coleraine Academical Institution and at Bath College when Mr. T. W. Dunn was headmaster. He practised as an architect in Belfast for twenty years, and designed many buildings in Ulster, including churches, banks, schools, and private houses. For several years he was president of the Belfast Art Society, and was also a Fellow of the Royal Institute of British Architects and the Royal Institute of Architects of Ireland.



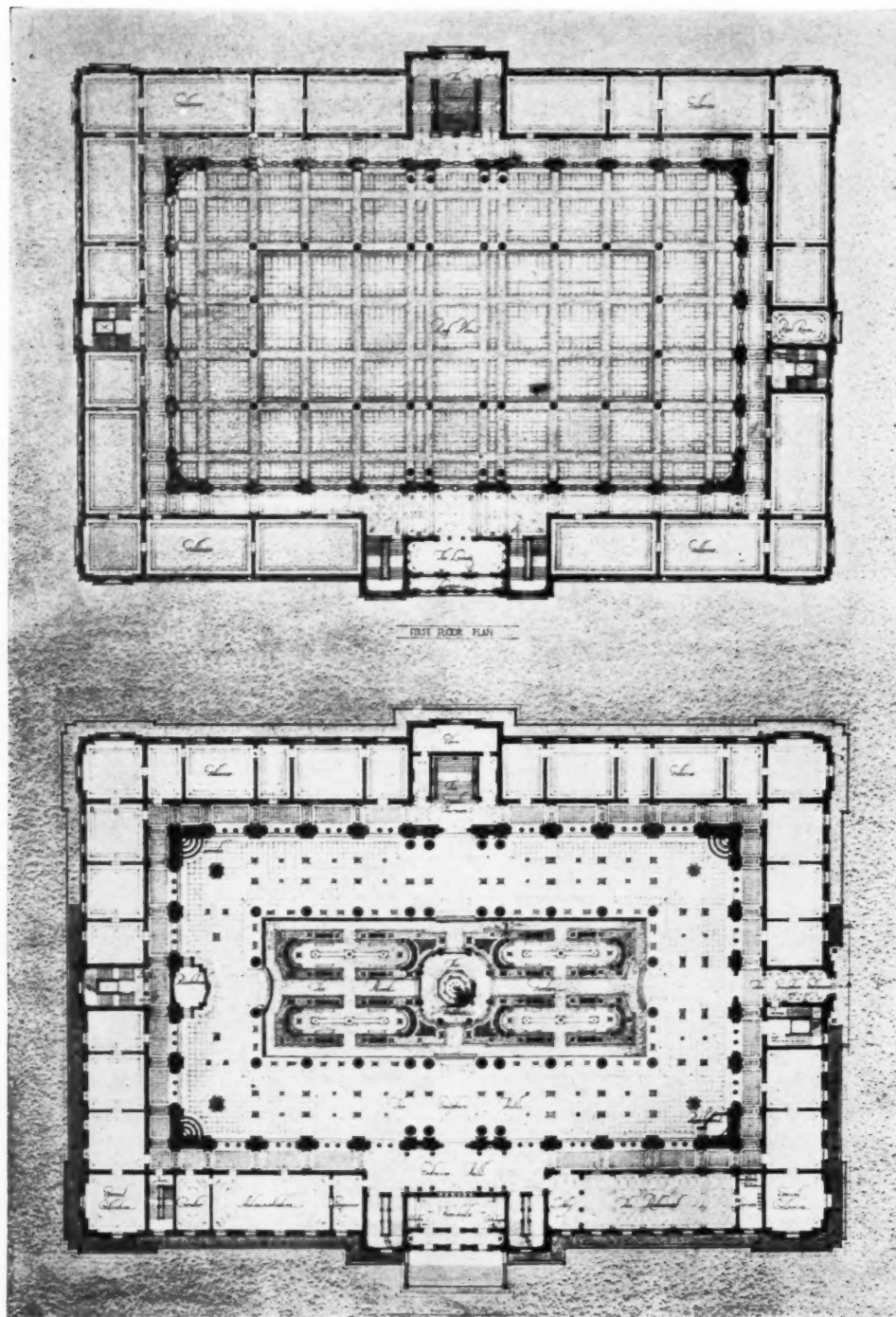
THE ROME SCHOLARSHIP IN ARCHITECTURE, 1925: G. A. BUTLING, WINNER.



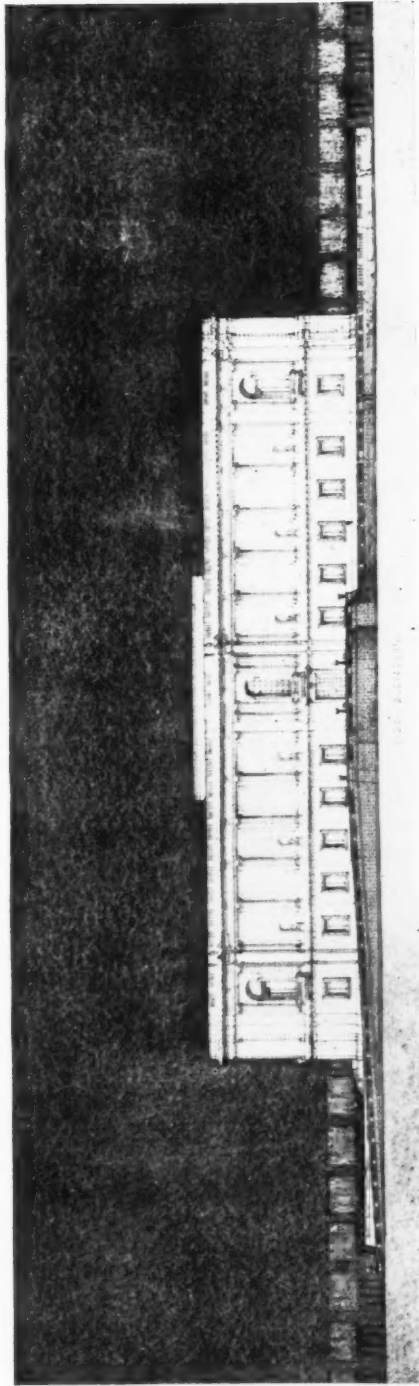
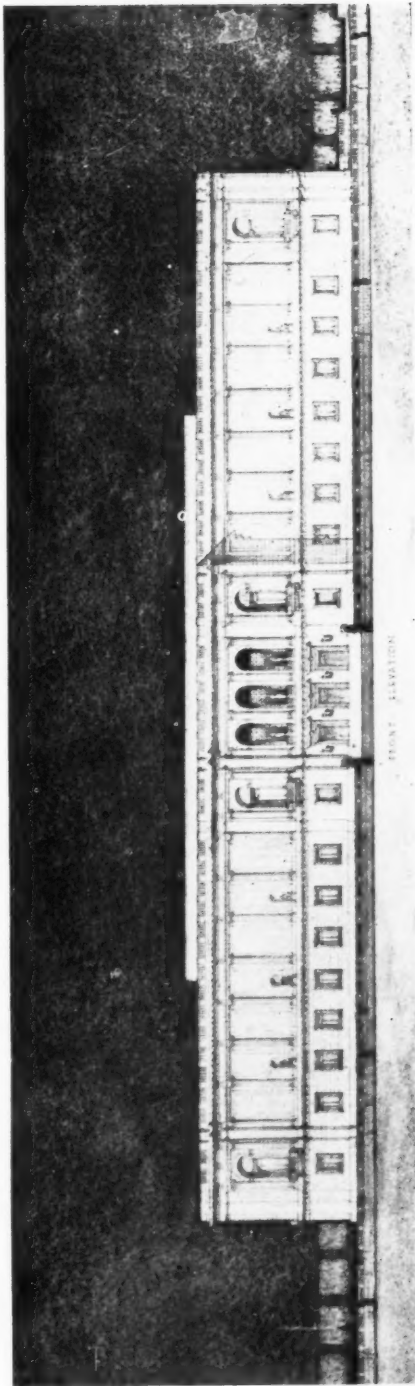
THE ROME SCHOLARSHIP IN ARCHITECTURE, 1925: G. A. BUTLING, WINNER.



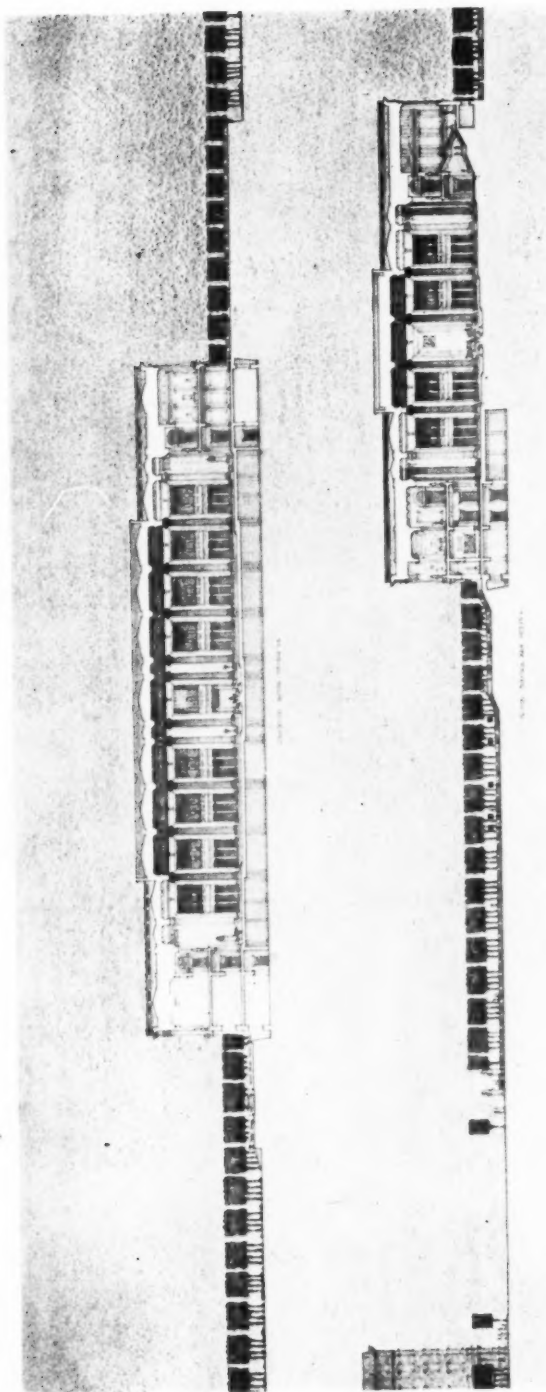
THE ROME SCHOLARSHIP IN ARCHITECTURE, 1925: G. A. BUTLING, WINNER.



THE HENRY JARVIS STUDENTSHIP, 1925: C. A. MINOPRIO, WINNER.



THE HENRY JARVIS STUDENTSHIP, 1925: C. A. MINOPRIO, WINNER.



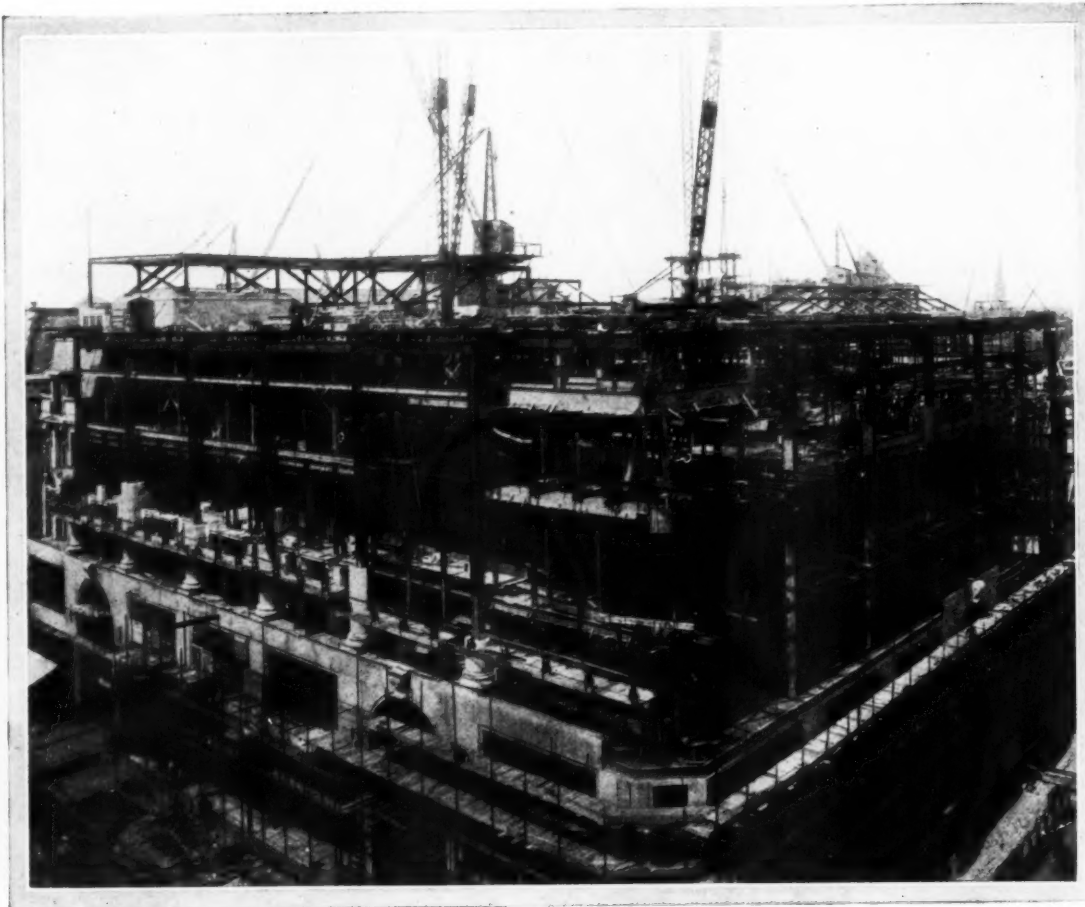
THE HENRY JARVIS STUDENTSHIP, 1925: C. A. MINOPRIO, WINNER

Saving Art Ceilings

About twenty-two years ago the Automobile Club of America was installed in its present home in New York City. Lack of space necessitated placing the club motor garage on an upper floor, car access to which is by large lifts. The room immediately underneath the garage is a spacious ballroom. This ballroom was decorated with a valuable ceiling of the Louis XIV period. Workmen from France were brought across the Atlantic to finish it. It was valued at many thousands of dollars. For more than a score of years the Automobile Club garage has housed the cars of its members. Heavy wear and tear; in winter, steel chains for heavily-laden wheels; frequent contact with oil and grease and, in one instance, a temporary flood caused by a broken water main, have given that garage floor a thorough test. During all the years not a drop of water or oil has found its way through the floor, a few inches below which the valuable Louis XIV period ceiling has remained undamaged. The floor in the Automobile Club garage is a "Colemanoid" floor. It is constructed of ordinary concrete upon which was placed a one inch topping of a one-cement two-sand mix, "Colemanoid" being added to the gauging water in proportions of one gallon of "Colemanoid" to every ten gallons of the water. Write to me for simple and understandable specifications—easily followed and economically executed—for a similar type of floor topping.

Regent House,
Regent Street,
W.1.

Frederic Coleman



PETER ROBINSON'S REBUILDING

Architects:
T. P. & B. S. CLARKSON,
H. AUSTEN HALL

Steelwork Manufactured and Erected
by
REDPATH, BROWN & CO., LTD.

Consulting Engineers:
E. P. WELLS, COCKING &
MESTON

REDPATH, BROWN & CO., Ltd.

CONSTRUCTIONAL ENGINEERS

3 LAURENCE POUNTNEY HILL, E.C.4

WORKS AND STOCKYARDS

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Riverside Works,
East Greenwich, S.E.

MANCHESTER
Trafford Park.

EDINBURGH
St. Andrew
Steel Works.

GLASGOW
Westburn, Newton.
Office: 19 Waterloo St.

BIRMINGHAM
Office:
47 Temple Row

NEWCASTLE-ON-TYNE
Office:
Milburn House.

Registered Office:—2 St. Andrew Square, Edinburgh

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Law Reports

Housing Scheme—Claim for Work

Wheater v. The Corporation of Brighton.

Court of Appeal. Before Lords Justices Bankes, Scrutton, and Sargant.

This was an appeal by the plaintiff, Mr. Harry Wheeler, a Brighton contractor, trading as A. and S. Wheeler, from a judgment of Mr. Justice Rowlatt, sitting in the King's Bench Division, in an action brought by the plaintiff to recover from the Corporation £38,547, balance alleged to be due under a housing scheme for the Corporation at the Moulscombe estate.

The contract, which was for the erection of nearly 500 houses, provided that the builder was to get a certain percentage of profit upon the price of the work, and one of the main points in the dispute was whether allowance had been properly made to the Corporation for decreases in the cost of labour and materials. Mr. Wheeler's case was that such allowance had been made, and that he was entitled to the sum claimed.

The defences to the action, *inter alia*, were that until the architect had certified that a sum was due the plaintiff had no cause of action, and that the architect's final certificate could not be questioned, and the Corporation paid into court the £2,000 for which the certificate provided.

Mr. Justice Rowlatt granted a declaration that the defendants were entitled to debit Mr. Wheeler with sums amounting to £18,099, and referred questions as to other deductions to an official or special referee.

Mr. Schiller, K.C., for the appellant, said his client now appealed from so much of the order of the learned judge as found that he had not, in fact, given credit in respect of "decreases" to the defendants in making up his account, and he asked that the judge's order should be varied by referring to the Official referee the question whether he had in fact allowed such "decrease" in making up his account.

The court dismissed the appeal without calling upon counsel for the other side, holding that the appellant had not, in the circumstances, been prejudiced by the order Mr. Justice Rowlatt had made.

Appeal dismissed, with costs.

Blasting Operations

Pyx Granite Co., Ltd. v. Malvern Hills Conservators and Malvern U.D.C.

Court of Appeal. Before the Master of the Rolls and Lords Justices Warrington and Atkin.

This was an appeal by the defendants from a judgment of Mr. Justice Romer, sitting in the Chancery Division.

The action was brought by the Pyx Granite Co. for certain declarations, and which raised the question as to whether the property and rights of the plaintiff company were excluded from the operation of a private Act of Parliament passed in 1924 for the purpose of the preservation of the Malvern Hills for the public, and under which greater powers were put into the hands of the conservators. Mr. Justice Romer held that the property and rights of the plaintiff company were excluded from the operation of the Act.

The Master of the Rolls, in giving judgment, said that the appeal would be allowed. Mr. Justice Romer had construed the Act of 1924 as if it contained a clause agreed on by the parties, and which gave the conservators the power of regulating only the plaintiffs' blasting operations. That clause, however, was not incorporated in the Act, and the court could not remould it.

Lords Justices Warrington and Atkin concurred, and the appeal was allowed, with costs.

Good and Substantial Repair—Alleged Breach of Covenant

Aspinell v. Towell.

King's Bench Division. Before Mr. Justice Wright.

This was an action to recover possession of ten houses in Bridgewater Street, St. Pancras, on the ground of breach of covenant to keep and deliver up in good and substantial repair and condition, according to the leases, of which the defendant was the assignee.

Mr. Joseph, for the plaintiff, said the plaintiff had the premises surveyed, and found there were considerable dilapida-

tions. He accordingly served notices on the defendant, but the repairs were not done in a reasonable time.

Mr. Merriman, K.C., for the defendant, said there had been a complete release of the defendant in consideration of a large payment to the executors of a former owner, from whom the plaintiff got his title. It was agreed that the defendant's holding over should not be upon the terms of the old lease.

Mr. Edgar Richard Taylor, surveyor in the employ of Messrs. Hillier, Parker, May and Rowden, Maddox Street, Regent Street, gave evidence that he prepared schedules of dilapidations in January, 1923. The cost of the repairs included in the schedules was £820, and defendant had since carried out repairs to the amount of £120. To put the houses in a habitable and sanitary condition would require an expenditure of £575.

The defendant gave evidence that he spent on repairs from 1921 to 1924, £456.

His lordship, in his judgment, said at the time the £2,010 was paid by the executors of Von Joel plaintiff had no interest in the matter, coming on the scene more than two years afterwards. Plaintiff was told some payment had been made on behalf of the executors of Von Joel and that might explain to some extent why the matter of dilapidations was not discussed or settled at the end of the termination of the various leases. The head lease from the freeholder, Lord Somers, came to an end in 1924, and in June of that year defendant gave up possession to plaintiff. The most serious question in the case was that of damages. The statement of claim originally was entirely based on allegations that in the period after the expiration of the lease in December, 1920, the defendant was holding over on the terms of the lease in so far as those terms were applicable to a yearly tenancy, and on that basis the notices to repair were relied on as particulars of the breach for the repairing covenant in the original leases. Mr. Joseph (for plaintiff) did not rely on any question of dilapidations as in December, 1920. His claim was based upon the notices of February, 1923.

His lordship said, on the main issue he came to the conclusion that the plaintiff's contention was not made out. When a tenant held over, the prima-facie presumption was that he was holding over on the same terms as those contained in the original lease in so far as those terms were applicable to a tenancy from year to year and commencing at a different rate from the original tenancy. He regarded the series of letters that had been read as showing quite clearly that the parties did not intend that the defendant should continue to be under the same repairing obligation as that contained in the leases which had expired. Defendant was indicating quite clearly that his obligation in respect of repairing would not be as stringent as that in the original leases, and the solicitors to the lessors were not insisting that his obligation should be so stringent. He found it impossible not to come to the conclusion that the prima-facie presumption as to the continuance of the repairing covenants in the original lease had been rebutted. Plaintiff, therefore, failed on the main issue. But he had allowed an amendment of the claim. The defendant having said that he regarded his true liability as having to undertake the repairs as regards the external structural work with the exception of taking down and rebuilding any part of the brickwork, and to do so much of the internal work as might be necessary or as might be required by the local sanitary authority from time to time to keep the premises in habitable and sanitary condition, his lordship found that that was the true extent of his liability.

The matter was accordingly referred to one of the official referees to ascertain the amount due to the plaintiff under that finding.

Building Scheme

Patterson v. The Wimbledon Estate Co.

Chancery Division. Before Mr. Justice Lawrence.

This matter came before the court for its decision as to a building scheme established in regard to the Wimbledon house estate.

Mr. Norman Armitage appeared for the plaintiff, and Mr. Beaumont for the defendants.

It appeared that the defendants had sold all the estate,

the plaintiff holding two plots. The question for the determination of the court was whether a power which was reserved to the defendant company by the deed to vary restrictions applied to the whole estate or only to unsold plots. Plaintiff said it applied to the whole estate. The restriction which it was sought to vary stated that not more than one house should be built on one plot except in the case of certain plots on which more than one house might be built with the consent of the defendants. The plaintiff wished that restriction to be varied in his case as he desired to erect more than one house on each of his plots.

The defendants had no objection to the proposal on its merits; in fact, they had been advised by their surveyors that it would actually improve the character of the neighbourhood, but they were doubtful whether on the construction of the deed they had power to grant the licence asked for by plaintiff. Some purchasers took objection to the defendants allowing any alteration in the deed. They said the company sold to them by auction in 1901, and then described the plots as plots on which only one house could be erected. The company, however, stated in the conditions of sale that they reserved the right to sell any lots in the future free from this restriction.

After legal argument, his lordship said it must not be understood that by the declaration he made that he had in any way decided that a radical or fundamental alteration of the scheme as a whole would be permitted. Under this power no such radical alteration or variation could be effected.

Right to Pass Windows

Leader and Wife v. Varley.

King's Bench Division. Before Justices Swift and Finlay.

The plaintiffs in this case, of Church Mount, Sutton-on-Hull, appealed from a decision of the County Court judge of Hull in favour of the defendant, of Church Mount, Sutton-on-Hull.

Mr. Waldo Briggs, who appeared for the appellants, said his clients sought an injunction against the defendants to restrain a trespass. In his reply the defendant said that he had a right of way over the land in question, that way passing plaintiffs' windows when users were going to Town Street, Sutton-on-Hull. The County Court judge held in favour of Mr. Varley, and refused the injunction. Mr. Briggs said the pathway, about which the dispute was, ran over a green in front of the houses concerned, and ran right before plaintiffs' windows. It was admitted that previously there had been a user of the path for years, and if Mr. Varley's conveyances gave him the legal user and the right to pass that way the plaintiffs could not contest it, but their argument was that the most defendant's conveyances gave him was a right of way in one direction, and not to the other and past plaintiffs' house. Therefore the judge was wrong in his construction of the documents. Mr. Briggs said his point was that if there was a grant of a right to go one way it could not be presumed that there was a right to go the other way.

Mr. Owen, for the respondent, said if Mr. Varley could not use this path he could not get free access to his house, and the clumsy drafting of a conveyance should not prevent a person getting his rights. Other people had rights of way over the path to the other houses in the neighbourhood.

The court allowed the appeal, with costs.

Mr. Justice Swift said it was clear that the defendants' rights were expressly defined in the conveyance, and by going past his boundary line in the direction of the plaintiffs' property he was trespassing, as he was also doing when he broke down a gate and padlock. There had been, it was admitted, a user of the road for forty years, and had the conveyance been silent on the matter that right would have passed to the defendant, but the contents of the conveyance altered that. The appeal must, therefore, be allowed.

Justice Finlay concurred.

Bridge—Right to Approach

Yorkshire, East Riding C.C. v. The Proprietors of Selby Bridge.

Chancery Division. Before Mr. Justice Russell.

This was an interesting action in regard to the statutory rights of the parties, and concerned the public highway and the construction of a section of the Public Health Act.

Mr. Maugham, K.C., and Mr. Farrer represented the plaintiffs, and Mr. Bennett, K.C., and Mr. Copping the defendants.

The action was for a declaration that plaintiffs, as owners of a plot of land at the approach to the bridge, were entitled to free and unimpeded access to it without payment of toll

except for the passage of Selby Bridge. They said that before 1791 and ever since the approach was a public highway and had been substituted for the old highway leading to the ferry, and that even if at one time the defendants had been entitled to close the approach to the public and the owners and occupiers of the adjoining land, they had lost that right in 1803, and had dedicated the approach to the public.

In 1902 the local sanitary authority laid a sewer in the Barlby Road and under the approach, and the plaintiffs claimed a declaration that they were entitled to connect their drains with this sewer under section 21 of the Public Health Act, 1875, without the permission of the defendants.

The defendant company counterclaimed for a perpetual injunction against the council from trespassing on the approach and from pulling down and removing any fences erected thereon.

Counsel, in stating the facts of the case, said that the defendant company in 1791 was authorized by the statute 31 Geo. III, c. 60, to build a bridge across the Ouse, from Selby in the West Riding to Barlby in the parish of Hemmingbrough in the East Riding, and to charge tolls to those crossing the bridge. The bridge took the place of an ancient ferry. The Act authorized the defendant company to build approaches not exceeding 200 yards in length to each side of the bridge, such approaches to be considered as part and parcel of the bridge. The defendants erected a toll-house and toll-bar at the Barlby end of the bridge, and the approach to the bridge now forms part of Barlby Road.

The County Council owned a plot of land adjoining the approach on the Barlby side on which they had erected a school, and they claimed to be entitled to free access to it over the approach while the defendants denied their right.

His lordship held that the old approaches were highways to which adjoining owners would be entitled to access for their adjoining lands, and the substituted approaches were highways to which adjoining owners had similar rights of access. The defendants' claim was both startling and ill-founded. On the evidence he would also be justified, if necessary, in holding that the defendants had dedicated the approach as a highway.

As to the remaining question—the right of the plaintiffs to connect drains with a public sewer—it was clear that section 21 of the Public Health Act, 1875, gave them the right. He declared that the plaintiffs as owners of their parcel of land adjoining the approach, and all others lawfully entering or leaving the same parcel, were entitled to free and unqualified access to and from the said parcel and along the said approach toll-free except only for right of passage over the bridge if and when they exercised such right of passage. He granted no injunction, but gave liberty to apply for an injunction if and when occasion arose.

He found that the old way across the ferry was a highway, and the plaintiffs' contentions had no foundation in regard to the highway, and the Bridge Act substituted one highway for another highway. The old highway at the material point consisted of the approaches to the ferry plus the passage across the river. The substituted highway consisted of the approaches to the bridge plus the bridge. The ferry-boat was only a physical means by which the passage along the highway across the river could be effected. He ordered defendants to pay the costs of the action, and he dismissed the counterclaim with costs.

The Housing Act, 1925

A circular letter has been addressed by the Ministry of Health to local authorities in England and Wales drawing attention to the fact that the Housing Act, 1925, which came into operation on July 1, reproduces in a consolidated form the permanent law relating to the housing of the working classes in England and Wales. The temporary measures, however, which have been passed for the purpose of encouraging building in the immediate future to meet the present deficiency in housing accommodation are not incorporated in the Act, but are left outstanding. The Minister proposes at a very early date to issue under the new Act consolidated regulations and an order prescribing forms, both of which will come into operation on September 1 next. Meanwhile the validity of the existing regulations and of orders, notices, etc., is preserved by section 136 of the Act. The model form of contract issued for the guidance of local authorities in May, 1920, has been reprinted with such alterations as are considered desirable in the light of experience and in view of the alteration in conditions since the date when the form was first issued.



THE LATE LORD LEVERHULME'S LONDON HOME.

"The Hill," Hampstead.

Leslie Mansfield, Esq., F.R.I.B.A., Architect.

J. WHITEHEAD & SONS, LTD.

Marble Experts,

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This photograph



shows a Malayan boy "tapping" a Rubber Tree on one of Messrs. Geo. Spencer Moulton's Rubber Estates.

Rubber in its natural state ("Latex") has the appearance of a thick cream, and is obtained by cutting the bark of the Rubber Tree as shown and allowing the Latex to flow out and down into the small cups fixed below.

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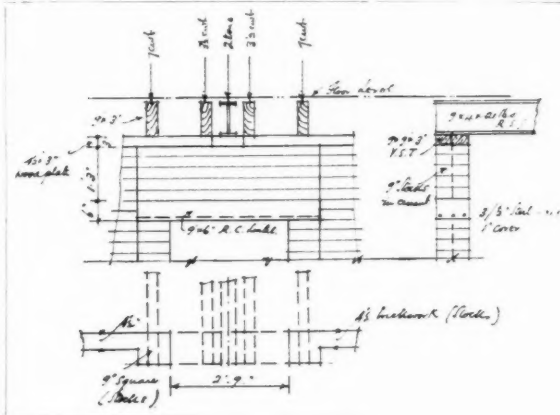
Enquiries Answered

Enquiries from readers on points of architectural, constructional, and legal interest, etc., are cordially invited. They will be dealt with by a staff of experts, whose services are specially retained for this purpose. If desired, answers will be sent direct through the post. In no case is any charge made for this service. Whenever diagrams accompany an enquiry, they must be clearly drawn and lettered and inked in.

STRENGTH OF REINFORCED CONCRETE LINTEL.

"C. A." writes: "Is the R.C. lintel shown in the accompanying sketch [reproduced] sufficiently strong for its purpose?"

—The lintel suggested is rather shallow. The effect of this would be to overstress the concrete in compression, and we would prefer



to make it 9 in. deep. The steel rods should not be quite as indicated in the sketch, but the ends should be hooked. If it is not possible to increase the depth to 9 in., we suggest putting three $\frac{3}{8}$ in. rods in the top as well as in the bottom, with links or stirrups, $\frac{1}{4}$ in. diam., at 6 in. centres. F. R.

CONCRETE PAVING.

"Reader" writes: "In concrete paving a large area of ground having a natural fall of approximately 1 to 2 in. in 10 ft. (which natural fall meets the requirements of the case), what allowance should be made for the expansion of the concrete? How should expansion best be dealt with, especially in view of the fact that the concrete would be contained within boundary walls—the lower, and one other, side having to serve to some extent as retaining walls? Would there be a tendency for the concrete to slide on the dry, clayey earth immediately over the 'bullhead' of the chalk? If so, what should be done to overcome this? Would it be wise to build the side walls to the slope of the ground. This method would save breaking or jumping the roofing (about 16 ft. wide) required against the boundary walls. As the work must be economically done and all the possible space included inside the area to be enclosed, perhaps you would also give me your opinion as to security of the following construction: brickwork, 14 in. thick to upper surface level, and 9 in. thick above this 'on the outer side.' The greatest depth to be built up against and retained is 3 ft.; 18 in. of this is 'bullhead,' and 18 in. clay soil upon which the concrete would be laid."

—"Reader" does not give very full details with his question. The size of the piece of ground to be covered would be a useful guide, and he does not state what mixture of concrete he proposes to use or specify.

If a good ballast free from sulphur and clay is intended to be used as aggregate, "Reader's" chief trouble will be contraction, or shrinkage cracks, not expansion. This is best dealt with by first deciding where he will have them, and then catering for them accordingly. If a large expanse of concrete is laid, and allowed to set, irregular shrinkage cracks will appear. They will appear anywhere, and there is no means of preventing them.

The obvious remedy is to provide cracks. That is, divide the area to be covered into definite areas, say, 50 ft. square, and cast these areas one at a time, care being taken not to cast the second till the adjacent one has set. An alternative is to divide the area into panels and to cast alternate panels first, and return and cast the remainder.

If the area to be covered is so large that alternate expansion and contraction due to summer and winter will have an appreciable effect, the best way to deal with the problem would be to cast the concrete in panels as mentioned, but leave an inch gap between the panels of concrete. These gaps could then be filled with a softer substance, such as asphalt, after the concrete has set.

The answer to the second question is that the fall of the ground, viz., 1 to 2 in. in 10 ft., is too flat for there to be any danger of the concrete sliding.

With regard to the third part, the thickness of wall suggested by the enquirer is quite adequate.

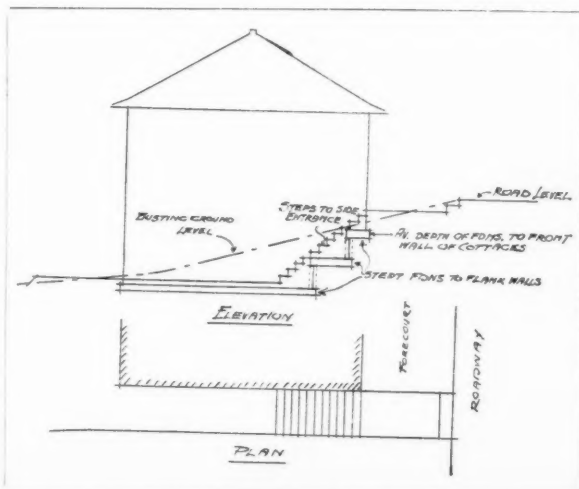
F. R.

COTTAGES ON A SLOPING SITE.

"Architects" write: "It is intended to erect a pair of semi-detached cottages on a steeply sloping site in a country town. Eleven-inch cavity walls are to be used, and the council's surveyor says that footings may be omitted, and that he will accept concrete foundations 18 in. wide by 9 in. deep, with wire netting reinforcement. The subsoil is stiff brown clay, under about 15 in. of loam. Owing to the slope in the ground it is desired in order to save unnecessary excavation to step the foundations of the flank walls, as shown on the sketch. (1) Are the steps shown too high. (2) If not, is it desirable to continue the concrete vertically between the ends of each step, as shown by dotted lines; (3) and if so, will additional strength and continuity be afforded by continuing the wire netting reinforcement up the vertical risers of the concrete from one horizontal step to another?"

—This question raises one or two problems, which should be in the hands of a consulting engineer. For a small fee, the enquirer would be relieved of all responsibility relating to the strength of his foundations. We give, however, a reply to his three questions, but would point out that we have not complete information of the weights coming on to the concrete foundations, and that our reply is in general terms only. (1) The steps shown are not too high; (2) it would be better to connect the steps vertically. As a matter of fact, the vertical risers had better be concreted before constructing the next upper step. This will enable the contractor to ram and consolidate the earth before the horizontal portion is concreted; (3) the reinforcement should be carried round the vertical portions to give continuity, but we suggest adding some round rods as wire netting is rather flimsy reinforcement. We would recommend three $\frac{3}{8}$ in. dia. rods at each step, placed near the face farthest away from the earth, and turned into the horizontal steps above and below.

F. R.



THE CEILING OF A TURKISH BATH.

"An Architect" asks: "What is a suitable material for lining the ceiling of the hottest room in a Turkish bath?"

—The hot rooms of Turkish baths are generally vaulted and rendered on the inside, the natural colour of the cement being set off by a dado of coloured marble or tiles carried some few feet up the wall surfaces. The vault itself is decorated by a number of light holes, sometimes arranged in a geometrical pattern and fitted with roundels of coloured glass, bottle ends being sometimes used for the purpose. Where light is introduced in this way the vault surface naturally appears grey in contrast to it, and the pleasant arrangement of the coloured glass is the chief decoration. Where glazed tiles are employed as the lining to hot rooms in Turkish baths, only specimens selected for their ability to withstand changes of temperature should be used. It is a point of discretion to avoid large spaces of white which will show up every craze and patch of discoloration, and compose a scheme of vigorous colour contrasts. The same instruction applies to marble and hard stones, which may turn from white to unpleasant greasy yellow grey with heat and moisture. In some modern Turkish baths enamelled iron plates have been used as internal lining and decoration to the ceilings. They have the disadvantage of conducting heat and communicating it to surrounding materials unless heavily backed up with insulating substances. From the decorative point of view enamelled iron frequently fails by crazing and chipping. The plates should be thick, and must be supported in such a manner that they are free to creep without buckling as they expand with heat. This involves a system of studs and slots and cover strips over the joints, which must be left wide enough to allow for expansion. Taking architectural effect and the purpose of the building both into consideration, it would seem that the time-honoured materials marble, tiles, and glass, with a backing of solid concrete, are as suitable as any.

W. H.

CAPACITY OF SEPTIC TANKS.

"L. W." writes: "Is there not a ready method by which the capacity of septic tanks may be arrived at? Say? galls. per head by number of heads requires septic tank = ft. by = ft., and so many cubic feet of tank requires so many cubic yards of filter material. No text-book appears to give this information in concise form."

—The capacity of a septic tank is proportioned to the flow of sewage, either two or three days flow being calculated as the under-water contents of the tank. Authorities are divided as to the best size of tank, but the advocates of small tanks claim that there is less liability for the sewage to putrify if it is only retained in the tank just long enough for the solids to liquify without allowing the bacteriological action to be carried too far.

Variations in the number of persons likely to make use of the installation and fluctuations in the sewage flow from any cause have to be taken into account, and the advice of a sanitary engineer who can weigh all the conditions applying at a given site is valuable in this respect.

The text-books can hardly be expected to give concise information on a matter where so many factors are variable. Each individual installation is a matter for expert judgment, and is to some extent experimental. The degree of purity obtained in the final effluent is the test of the experiment's success. The following figures should, therefore, be regarded as a general guide, and altered and adapted to suit particular cases.

Taking a family of ten persons and assuming their daily production of water-borne sewage, including bath and lavatory waste and scullery sink waste, to be forty gallons per head, the capacity of the tank that would contain two days' flow would be $10 \times 40 \times 2 = 800$ gal., or 128.36 cub. ft. This must, of course, be measured below water level in the tank. Approximate dimensions might be taken at $5 \times 5 \times 5$ ft. 1½ in., and it must be noted that rainwater is supposed to be dealt with by a separate system of drains and soakaways, and not admitted to the tank.

The size of the filter-bed is also variable, but, given efficient distribution of the tank-liquid over the surface of suitable material, properly graded, packed, and under-drained, 1 cub. yard may be allowed to forty gallons of sewage per day; 10 cub. yards would, therefore, be required for a household comprising ten persons.

A relatively larger filter-bed, and more filtering material will, however, be required to produce a given standard of purity if fixed channel distributors are used in place of mechanical distributors, which apply the tank-liquid to the filter-bed in the form of a fine, evenly-distributed, and well-aerated spray.

W. H.

FUMES FROM A GAS STOVE.

"F. C." writes: "Your expert's reply in a recent issue with regard to 'Fumes from a gas stove,' appears to me to imply that small flues built in the thickness of an outside wall would not be effective for gas fires unless taken up above the roof like an ordinary chimney. But I have in my house a 9 in. by 3 in. flue built in a 10½ in. cavity brick wall, taken up only 8 ft. 6 in. from ground, where it discharges through an ordinary air brick below the level of the first-floor joists. During four years of usage I have found this flue quite satisfactory in taking off the fumes. I was thinking of applying the same method to take off the fumes from the oven of a gas-cooker in a house I am now building, and I do not see why it should not be effective. Of course, it would not be as good as the method of the hood suggested by you, as the latter would gather all the fumes, whereas my flue would take off from the oven only. But the oven fumes are certainly the worst that come from a gas-cooker, and where it is not desired to go to the expense of providing and fixing a hood, I do not see why this flue should not be used to carry off the greater part of the smell and fumes arising from cooking."

—My reply *did* imply that flues built in the thickness of any wall should always be taken up above the roof, like an ordinary chimney, and I can state very definitely that this is the *principle* which should always be followed, unless an expert is called in to give consideration to the position regarding any proposed installation.

If a new house is being erected, there is no doubt whatever that the above-mentioned rule should always strictly be followed, as otherwise there is a grave risk of downdraughts occurring after the house has been constructed, resulting either in dissatisfaction or in greatly increased cost and trouble in putting the matter right.

It is not too much to state that a number of such instances have occurred, and only at great expense has the original error been corrected. It has been admitted by experts for many years that ventilation is a very difficult problem, especially as regards the action of chimney-draughts.

If this is doubted, it is only necessary to look at a few streets of houses, all erected at the same time, on the same level, in the same neighbourhood, when it will usually be noticed that many of the chimneys have some device or apparatus fitted to them to cure downdraughts. When it is realized, therefore, that no one can be certain of the correct ventilating action taking place in the case of a properly constructed flue, run to the top of a house, there is obviously a greater risk of trouble arising when a flue is taken up to a height of about 8 ft. 6 in. above the ground, and then led into an air brick below the level of the first-floor joists.

Such a position is an invitation to any wind which is blowing straight at the wall in which the air brick or flue outlet is situated, to use it as an opening into the house rather than to allow the products of combustion of gas to pass through it to the outer air.

It is true that such flues or air bricks will—and, indeed, do—operate successfully in many cases, but there is no doubt that whenever a new building is being erected, no such method as this should ever be risked. On the other hand, it sometimes happens that a gas fire is needed (in a house already erected) in a room in which there is no proper flue, and where the easiest method of running one is that suggested by your correspondent.

Then, *faute de mieux*, such a device may reasonably be tried, but again, the whole thing would depend upon the aspect of the wall through which the flue pipe is to be taken; the effect upon it of the prevailing winds—or possibly gales—and also whether the house is, or is not, in an exposed position. Over and above all this, the internal conditions of the house as regards the opening of doors, windows, etc., frequently have a bearing upon the success—or non-success—of such an installation, and the only safe way is to take expert advice.

As regards your correspondent's further point about ventilating the oven of a gas cooker in this manner, here also I regret that I cannot possibly agree that this should be done, unless, as I said before, a flue from the oven is taken up into a hood, thus creating a definite break between the oven itself and the outer air. An occasional downdraught would then have no other effect than to blow back into the room a certain proportion of the products of combustion and the steam and smell from cooking.

If, however, a flue is taken from the oven direct into the open air, and such a downdraught occurs, there is a grave risk of the flames of the oven burners being blown out, especially so because it must be remembered that directly a gas oven is heated, and the food is cooking satisfactorily, the burners are usually turned down to a very low flame.

H. H. C.

Correspondence

The Elevations of Buildings

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—With reference to the proposed Registration Bill for architects, would it not be an excellent provision, and particularly a desirable one these days, that all elevations of buildings should be regulated and approved by architects (registered)? It would certainly protect the future architectural beauty of the whole country against ugliness.

"SAFEGUARD."

Combined Central and Domestic H.W. Services

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—I should be glad to know whether one of your readers could tell me what is the latest—and best—method to adopt to avoid furring of radiators and h.w. pipes in a small domestic service, where it is imperative that the few radiators must be heated from the one (Beeston) boiler serving the baths, basins, sinks, etc. It is recognized that the practice of dual supply should be avoided whenever possible, but there are some people who maintain that the old difficulty and annoyance of discoloured water from, and the furring, etc., caused by the North London water, is now negligible—which it is not. Some people also maintain that a cylinder can be obtained with a sort of double jacket or series of coils within from which the radiators can be served without touching the domestic service supply, but at the same time entailing the use of one fire only for both services. I have made extensive search for such an apparatus, but can find nothing that promises ultimate relief or mitigation of the old nuisance. Expert opinion on this old question seems as much divided as ever; and I fail to get similar opinions from any two heating engineers. There appears to be a boom in central heating for small houses, but the one cry is there must be no second boiler for the maid to attend to.

"DATA."

Parliamentary Notes

[BY OUR SPECIAL REPRESENTATIVE.]

Mr. N. Chamberlain informed Mr. Paling that 2,241 houses had been authorized under the Act of 1924 to be erected in 355 agricultural parishes in England and Wales. Up to June 1, contracts had been let or definite arrangements made for the erection of 1,028, and of these, 242 had been completed.

Mr. N. Chamberlain informed Mr. Day that during the twelve months ended December 31, 1924, 5,546 houses had been completed in connection with schemes under the Housing Acts in districts wholly or partly in the Metropolitan Police district, and a further 4,908 houses were in course of construction on December 31. Precise information as to the number of non-parlour houses included in these figures was not available, but it was estimated that two-thirds of the houses were of this type. Similar information in regard to houses erected by private enterprise without State subsidy was not available for the period in question, but during the twelve months ending September 30 last, the houses so completed were:

Not exceeding £35 rateable value	10,762
Exceeding £35, but not exceeding £70 rateable value	3,954
Exceeding £70, but not exceeding £105 rateable value	426
Total up to £105 rateable value	14,542

On October 1 the following numbers of houses were in course of construction:

(a) Five rooms or less	3,845
(b) Six, seven, or eight rooms	5,049
(c) Nine rooms, but not more than twelve rooms	286
Total	9,180

Sir K. Wood informed Mr. Riley that 459 local authorities in England and Wales had so far received approval to schemes under the Housing (Financial Provisions) Act, 1924, the number of houses authorized being 61,484—59,947 to be erected by the local authorities, and 1,537 by private enterprise. Of these, 4,428 had been completed by local authorities, and 33 by private enterprise on June 1; and 15,855 and 184 respectively

were under construction at that date. In general the rents charged approximated to the rents of houses erected under the Housing, etc., Act, 1923.

Replying to Mr. Foot Mitchell, Sir K. Wood said that the Minister of Health was aware that there was still a shortage of housing accommodation in agricultural districts in common with the rest of the country, and the problem was receiving his serious and continued attention. Since 1919 some 75,000 houses had been erected in rural districts under the Housing Acts, and during the past two and a half years over 53,000 by private enterprise without the aid of subsidy. The Minister anticipated that increasing advantage would be taken of the special Exchequer subsidy provided by the Housing Acts for the erection of houses in agricultural parishes, and he had hopes that alternative methods of house construction would contribute something towards the housing needs of these parishes.

Sir J. Gilmour, Secretary for Scotland, informed Mr. Stephen that 3,938 houses had been built in Scotland under the 1923 Act, of which, 934 were built in Glasgow. Seventy-five houses had been built in Scotland under the 1924 Act, of which twenty-four had been built in Glasgow.

Societies and Institutions

The Norfolk and Norwich Association of Architects.

The Norfolk and Norwich Association of Architects paid a visit to King's Lynn. The party included Messrs. E. T. Boardman (president), E. H. Buckingham, G. Cotman, F. W. and E. H. Skipper, C. Upcher and E. P. Rennie from Norwich, John Page from Fakenham, E. G. Holton from Holt, and J. L. Carnell, W. D. White, E. E. Colman and L. F. Eagleton from King's Lynn, with the honorary secretary, M. E. W. B. Scott, and a number of Associate members and students. Visits were paid to most of the points of architectural interest. The party went first to the Red Mount and South Gate, then on to All Saints Church, and the White Friars Gateway. After visiting Boal Quay and some of the delightful buildings in Nelson Street and Queen Street, they went to the Custom House, then through King Street and Tuesday Market to St. Nicholas Church. After lunch visits were paid to the Town Hall and St. Margaret's Parish Church. The day ended with a visit to the interesting Greenland Fisheries Folk Museum, collected by Mr. E. M. Beloe, where tea was served. As a result of the care expended on the programme by the Lynn members, every moment was crowded with interest, which was further heightened by the brief architectural notes so admirably given by Mr. Beloe and other Lynn archaeologists who devoted their day to the visit.

The Institution of Heating and Ventilating Engineers (Incorporated).

At the annual summer meeting of the Institution of Heating and Ventilating Engineers, held at Birmingham, Mr. Herbert G. Cathcart read a paper on "Hot Water Supply Installations for large Infectious Diseases and Mental Hospitals." Speaking of the extent of some of these hospitals, he stated that 2,800 to 3,000 tons of coal per annum were consumed in many of them for steam-raising alone, besides 500 to 850 tons for other purposes. Hence the necessity for careful consideration in designing plants for such a purpose as that referred to in the title of his paper. He then spoke of the importance of the centralization of plant, the necessity for water softening in districts like London, the desirability of ample capacity in the storage of hot water, and the importance of providing spare or stand-by plant where a breakdown would cause the stoppage of a large part of the essential services. He emphasized the great value of suitable recording apparatus—distance registration pressure and temperature instruments—to furnish a record of the fluctuations in temperature throughout the day, or week, and a reliable meter to register the total consumption of hot water, so giving complete evidence of the running of the plant, the shortcomings of the staff, etc., and providing most valuable and interesting data of the plant's performance at all times. He exhibited a number of graphs, taken from installations of the Metropolitan Asylums Board, showing the hourly consumption of hot water over the twenty-four hours of the day, both Sundays and week-days, which afforded very interesting information as to where the hot water was used, the times and quantities of draw-offs, etc. Finally, he warned his hearers of the vital importance of using none but the best non-conducting covering composition for covering the pipe lines, etc. He stated that the Board now used only pure magnesia and plastic asbestos, and required 85 per cent. efficiency, otherwise the material was rejected.

The Week's News

Proposed Extension for Hackney Institute.

It is proposed to extend Hackney Institute at a cost of £62,370.

The Reconstruction of High Street, Putney.

At an estimated cost of £9,765, High Street, Putney, is to be reconstructed.

Change of Address.

Mr. William W. Wells, architect and surveyor, has moved to Exchange Buildings, 11 Rutland Street, Leicester.

126 New Houses for Salford.

One hundred and twenty-six houses are to be erected by the Salford Corporation on the Littleton Road housing estate, Lower Kersal.

Public Abattoirs Scheme for Nelson.

The Nelson Town Council have resolved to apply to the Ministry of Health for sanction to borrow £30,000, the estimated cost of erecting public abattoirs.

Tower for Harrow Speech-Room.

The Harrow Urban District Council have passed plans for a tower to Harrow School Speech-room, which, after fifty-one years, is now to be completed.

Jarrow Houses to be Built by Direct Labour.

The Jarrow Town Council have decided to apply for sanction to borrow £20,585 for the erection of forty-six houses by direct labour.

Housing Scheme for Thedwastre District.

The Thedwastre Rural District Council have instructed the Council architect to prepare plans for the erection of forty-two cottages.

New £50,000 Baths for Salford.

The Salford Town Council have sanctioned the expenditure of £49,825 on the erection of public baths and washhouses in Hodge Lane.

Proposed New Town Hall for Barnsley.

Messrs. Briggs and Thornely, of Liverpool, architects, are to prepare sketch plans of a new Town Hall for Barnsley. The building is to cost about £100,000.

Liverpool School Plan.

The Liverpool Hospital for Consumption and Diseases of the Chest propose to erect a residential special school at Liverpool.

New Schools for Aylesbury.

The Aylesbury Urban District Council have sold two sites on housing estates to the Bucks County Council for the erection of schools.

Baths for Streatham.

For the erection of baths at Streatham, the Wandsworth Borough Council have applied to the Ministry of Health for sanction to a loan of £36,500.

York House, Twickenham.

The Twickenham Urban District Council have sanctioned an expenditure of £33,000 on converting York House for municipal purposes.

More Houses for Rotherham.

The Housing Committee of the Rotherham Corporation have received sanction for the erection of a further twenty-seven houses on the Eastdene site.

Nuneaton Housing.

The Nuneaton Town Council have decided to apply to the Ministry for sanction to erect a further 200 houses on the Stockingford and Tomkinson Road housing sites.

The Engineers' Club.

The annual dinner of the Engineers' Club will be held on Friday, October 23, at the Savoy Hotel, when the Rt. Hon. Winston S. Churchill, M.P., Chancellor of the Exchequer, will be the guest of the club.

300 Houses Wanted at Normanton.

The Normanton Urban District Council propose to erect twelve houses on the Snyder Road site immediately, and a further scheme is to be prepared for the proposed erection of 118 houses on the Hanson housing site.

Houghton Rural Housing Schemes.

The Houghton Rural District Council have received the sanction of the Minister of Health to the borrowing of £20,974 for the erection of houses at Newbottle, Penshaw, New Herrington, and Silksworth.

Plans for Doncaster's New Infirmary.

Plans for the new Doncaster Infirmary have been accepted by the Building Committee. The architects are Messrs. Pite, Son and Fairweather, of London. The cost is estimated at over £200,000 for a 300-bed institution.

A New Church Tower for Manchester.

A tower is to be added to the Church of the Holy Name, Manchester, in memory of Fr. Bernard Vaughan, who was for some years rector of the parish. Plans are being drawn up by Sir Giles Gilbert Scott and his brother, Mr. A. Gilbert Scott.

New Out-patients' Wing for Wakefield Hospital.

A gentleman resident in the United States who was born in Wakefield, and who wishes his identity to remain anonymous, has given an undertaking to the Governors of the Wakefield Clayton Hospital that he will provide the necessary funds for the erection and equipment of a new out-patients' department.

New Lancashire Schools Proposed.

The Lancashire Elementary Education sub-Committee have recommended to the Education Committee that a new school be provided at Fleetwood for use as a central school for 300 boys and 300 girls. It is also recommended that a school be provided at Church and Oswaldtwistle for about 720 children.

Brighton Aquarium Site to be Developed.

The Brighton Town Council have approved a £100,000 scheme for the development of the Aquarium site on the front. The scheme includes the provision of a theatre, a restaurant, and a bandstand, but it is proposed to retain the main body of the aquarium tanks.

Wakefield Water Undertaking.

The Wakefield Corporation propose to begin the first instalment of the Ryburn water scheme this summer. The complete scheme is estimated to cost nearly £1,000,000. The first instalment consists of a pipe line twenty-three miles long, tunnel, river crossings, etc., and filtration works, the whole of which are estimated to cost £275,000.

£100,000 Gift for Torquay Hospital.

Mrs. Ella Rowcroft, of Torquay, has announced her intention of defraying the whole cost of the erection of the new Torbay Hospital at Torquay, which will entail an outlay of £100,000. Mrs. Rowcroft and her sister, Miss Wills, of Bristol, have given £123,000 towards the new hospital, which will be begun immediately.

Greenwich Housing Scheme.

The Greenwich Borough Council have purchased Charlton House and park and the twenty-acre field adjoining from Sir Spencer Marjony-Wilson. The purchase price exceeds £69,000. It is proposed to lay out the field as a housing estate, comprising 100 dwellings, but a decision has still to be made as to the use of Charlton House.

£10,000,000 for Main Roads.

The Ministry of Transport had only touched the fringe of improvements on main trunk roads, and at present had in hand works involving £7,000,000. The Ministry had budgeted this year for an expenditure of £10,000,000 upon the maintenance of class 1 roads. These figures were given by Sir Henry Maybury, Director-General of Roads, in evidence before the Royal Commission on Local Government, which met at the House of Lords.

Wolverhampton's Proposed New Technical College.

The scheme for the provision of a new technical college at Wolverhampton is to be proceeded with as early as possible. The total cost, exclusive of the engineering block which has already been undertaken is estimated at £112,614. This sum will be provided by the two authorities—the County Education Committee and the Wolverhampton County Borough authority—in accordance with agreement, in the proportion of one-third by Staffordshire and two-thirds by Wolverhampton. Sketch plans show that the buildings will be divided into five main sections—viz, (1) general and administrative, (2) biology, (3) commercial, (4) domestic, (5) technical; the latter comprising engineering production with workshops and drawing offices; material section, including chemistry, metallurgy, and general science subjects, mechanical and electrical engineering, and building construction.

London County Hall Exhibition.

The London County Council have arranged for selections from the prints and drawings of London in its possession to be exhibited in one of the rooms at the County Hall. Arrangements have been made to include this room in the itinerary for visitors to the County Hall. The selection of prints at present on exhibition is illustrative of eighteenth-century London. The general public are admitted to view certain portions of the County Hall at the following times: Saturdays, from 10.30 a.m. to 12 noon, and from 1.30 p.m. to 3.30 p.m. Easter Monday, Whit Monday, and August Bank Holiday, from 10.30 a.m. to 12 noon, and from 1.30 p.m. to 4.30 p.m. The public entrance is in Belvedere Road. Organized visits also are allowed on Saturdays (but not on Bank Holidays) in cases in which permission is obtained in advance. Applications in respect of such visits should be addressed to the Clerk of the Council at the County Hall.

London's Housing.

The London County Council, at their last meeting, passed a recommendation to purchase a further 127 acres of land at Hendon for housing. The land adjoins the portion already acquired under a compulsory order. Mr. G. R. Strauss asked the chairman of the Housing Committee whether, "in view of the almost complete absence of trees at Becontree, and the monotony of most of the streets," the committee would take steps to have trees planted throughout the estate. Lieut.-Colonel Levita said he could not agree that monotony of streets existed at Becontree, or indeed on any of the Council's estates. A reasonable expenditure was always incurred to develop and preserve amenities, including trees. The local authorities who took over the roads on completion doubtless would, in due course, add to the amenities of the lands which had been developed so recently at great expense to the London ratepayers.

Competition News*Norwich Masonic Building Scheme Awards.*

The following awards have been made by the assessors, Messrs. Edward Boardman and Son, in the Norwich Masonic Building Scheme Competition:

1. Mr. Stanley J. Wearing, A.R.I.B.A., Norwich.
2. Mr. E. H. Buckingham, of Messrs. Morgan and Buckingham.

School of Hygiene's New Building.

In order to obtain designs for the permanent quarters of the London School of Hygiene and Tropical Medicine to be erected on the site adjoining Keppel Street, Gower Street, and Malet Street, near the British Museum, the Board of Management of the school in December last instituted a competition limited to five architects who have specialized in the planning and equipment of the type of building required, and appointed Sir Frank Baines, Director of Works at H.M. Office of Works, as assessor. Funds for the erection of the new building are being provided by the Trustees of the Rockefeller Foundation, who offered the British Government nearly half a million sterling for site, building, and equipment. The Board of Management of the school, under the chairmanship of Sir Alfred Mond, M.P., has unanimously adopted the assessor's award in favour of the design submitted by Mr. P. Morley Horder, who will be appointed architect for the new building.

List of Competitions Open

Date of Delivery.	COMPETITION.
Sept. 1	High bridge over Copenhagen Harbour. Three prizes to the value of Kroner 35,000. Apply City Engineer's Office, Town Hall, Copenhagen. Deposit of Kroner 100 (returnable).
Sept. 5	Proposed new out-patient and casualty department for the Board of Management of the Wolverhampton and Staffordshire Hospital. Assessor, Mr. T. R. Milburn, F.R.I.B.A. Premiums, £200, £150, and £100. Apply, with deposit of £1 1s., to Mr. W. H. Harper, House Governor and Secretary, Wolverhampton and Staffordshire Hospital.
Oct. 1	The Municipality of Drammen, in Norway, invites Norwegian and foreign architects and engineers to compete for the construction of a new bridge across the river of Drammen (Drammenselven) between the two neighbourhoods Bragernas and Strömsö. Judging Committee: Professor Otto Linton, Stockholm, appointed by the Norwegian Engineers' Association; Mr. Arne Eide, architect, Oslo, appointed by the Norwegian Architects' Association; Mr. M. E. N. Saxegaard, district-chief, appointed by the Norwegian State Railways; Mr. Olaf Stang, engineer-in-chief, Oslo; Mr. U. Lied, chief physician, chairman, appointed by the Municipality of Drammen; Mr. Otto K. Römcke, wholesale merchant, Drammen; and Mr. A. Heitmann Arntsen, secretary, Drammen. Mr. Lied and Mr. Saxegaard are respectively president and vice-president of the committee. The following prizes are offered for the best designs: First prize, 10,000 Norwegian crowns; second prize, 8,000 Norwegian crowns; third prize, 6,000 Norwegian crowns. Apply Bureau of the Government Engineer (Statsingeniörkontoret) at Drammen. Deposit 40 Norwegian crowns.
Oct. 8	Proposed Fire and Police Station at Marlborough Crescent, Newcastle-upon-Tyne. Premiums: £500, £300, and £100. Assessor, Mr. Percy S. Worthington, D.Litt., M.A., F.R.I.B.A. Apply, with deposit of £2 2s., to Mr. A. M. Oliver, Town Clerk, Town Hall, Newcastle-upon-Tyne, by July 4.
Dec. 31	The Argentine Government offer prizes of 10,000, 5,000, 4,000, 3,000, and 2,000 Argentine gold pesos for the best architectural designs for a National Institute for the Blind. Apply Enquiry Room, Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1.
June 30, 1926.	Competitive designs are invited by the Ministry of Wakfs for the rebuilding of the Mosque of Amrou. Prizes of £2,500, £1,000, and £500 are offered for approved projects. Those wishing to submit designs should apply before June 30, 1926, to H.E., the Under-Secretary of State to the Ministry of Wakfs, Cairo (cables "Wakfs Cairo"), who will forward details, conditions, etc. The final date for acceptance of proposals is January 1, 1927.
No Date.	H.M. Senior Trade Commissioner at Johannesburg has forwarded a copy of minutes received from the clerk to the Municipal Council of Pretoria concerning the erection of a new Town Hall in that city. It is stated in the minutes that competitive designs will be invited at a cost (first estimate) of about £200,000. British firms interested in this announcement can consult the minutes referred to on application to the Department of Overseas Trade, 35 Old Queen Street, London, S.W.1.
No Date	A new secondary school for girls on the Thames House site for the Worcester City Council, at an estimated cost of £32,000. The competition is limited to local architects. Premiums, fifty guineas and twenty-five guineas.

Trade and Craft*The Newcastle Conference—An Invitation.*

Messrs. Walker and Son, Ltd., of Newcastle, cordially invite architects attending the conference to inspect the interesting architectural features of their showrooms, 55 Westgate Road. These features include a fine carved stone doorway, an imposing eighteenth-century staircase, finely modelled plasterwork and a domed roof, and typical examples of the work of Grinling Gibbons.

The Waygood-Otis Club.

The Waygood-Otis Club held their sixteenth annual sports and garden party on their ground at Bellingham on Saturday (June 27). Among the most interesting events were the 100-yards flat handicap, which was won by Mr. G. R. Maryon in 10 sec.; the veterans' and the ladies' 100-yards, which were won by Mr. F. Eldridge and Miss L. Barton respectively. The half-mile and one mile cycle handicaps were won by Mr. J. Davies, and the 440-yards club championship cup, which carries with it a gold medal was won by Mr. S. Piper—for the fourth time in succession. The one mile flat handicap was won by Mr. R. H. Maryon, the 220-yards handicap by Mr. S. Piper, the hurdle race by Mr. G. R. Maryon, and the departmental relay race—six teams competing—by the contracts department. The departmental tug-of-war challenge cup passed from the existing holders—the service department—to the transport department after a pull lasting six and a half minutes. A cup presented to the club by Mr. H. C. Walker, the chairman of the company, to be held for one year by the winner of the greatest number of individual events, was awarded to Mr. G. R. Maryon. The distribution of the prizes by Mrs. C. Clarke, wife of one of the managing directors, was preceded by a presentation to Mr. C. H. J. Day (starter) of a silver cigarette box by the members, in appreciation of the active interest he had always taken in the affairs of the club.

Messrs. E. Pollard & Co.'s Annual Meeting.

At the thirtieth annual general meeting of Messrs. E. Pollard & Co., Ltd., held at the company's offices, St. John's Square, London, E.C.1, the dividends on the preference shares, and 10 per cent. dividend on the ordinary shares were passed, carrying a large balance to reserve. The retiring directors were re-elected. The Board regretted the loss of an old colleague and director, Mr. R. Thomson, who died suddenly. During his remarks, the chairman, Mr. E. Pollard, stated that the new branches at Manchester and Dublin were creating a large volume of new business, and it was essential to hasten on the building of the new factory with all possible speed. With regard to the Sundries Company, he was pleased to say that several new processes of manufacture had allowed the company to compete with great success in foreign markets, and representatives were well established in India, and the Far East, Australia, New Zealand, Africa, Canada, and South America. An expression of satisfaction from the shareholders and a vote of thanks to the chairman concluded the proceedings.

New Inventions*Latest Patent Applications.*

- 15305.—Albert, F. L. J.—Building-blocks. June 12.
 14858.—Bellamy, F. H.—Buildings. June 8.
 14852.—Chanard, P.—Construction of dwelling-houses, &c. June 8.
 14812.—Crosbie, W. M.—Apparatus for making walls. June 8.
 14904.—Garrett, E. J.—Walls for buildings, &c. June 8.
 14991.—Lindman, E. I.—Production of porous concrete. June 9.
 15178.—Ottino, G. P.—Roofing construction for buildings. June 11.
 15697.—Dawe, J.—Building-blocks. June 17.
 15663.—Finn, A.—Plastering devices. June 16.

- 15860.—Hannah, F. C.—Asbestos-cement, &c., sheets, &c. June 19.
 15679.—Karman, T. V.—Building materials for light structures.
 15662.—Ritchie, H. C.—Reinforced-concrete structures. June 17.
 15677.—Stent, D. H.—Casting concrete walls. June 17.

Specifications Published.

- 225162.—Watson, C. W.—Process and apparatus for making concrete structures centrifugally.
 234545.—Clifton, W. E., and Clifton-Ewart Construction Co., Ltd.—Methods of and means for moulding concrete plaster and like structures.
 234578.—Wood, M. G.—Surveying instruments.
 234594.—Leeming, E. L.—Reinforced-concrete slat walls.
 234596.—Banks, C. S.—Removable fastening devices for use in constructional work.
 234599.—Downing, C. J., and Daniels, W. B.—Building-blocks and concrete buildings.
 234865.—Parsons, J.—Building of houses and the like.
 235006.—Eriksson, J. A.—Method for manufacturing porous concrete.
 229264.—Till, F. D.—Sun-protecting upper roofing.

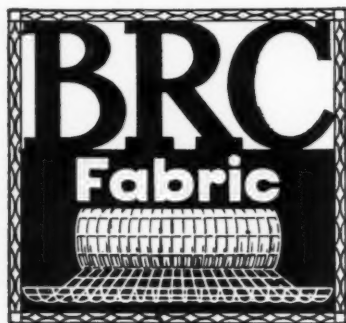
Abstracts Published this Week.

- 232811.—Ebinger, M., 1063 Alcatraz Avenue, Oakland, California, U.S.A.—Plastering.
 23230.—Freeman, H., 67 Brookwood Road, Southfields, and Bloomfield, F. P., 42 Pellatt Grove, Wood Green, both in London.—Floors; roofs; girders.

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