THE BUILDER

A Journal for the Architect & Constructor

DECEMBER 13, 1929. No. 4532

LEADING CONTENTS

ILLUSTRATIONS.

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ARTICLES *(Continued)*.

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87TH YEAR

THE LARGER WAR DOME.

SYMBOLIC FRUIT AND CYPRESS TREE DIVIDING THE GROUP OF KNOWLEDGE AND JUSTICE IN THE LARGER DOME.

Mural Decorations in the Imperial Secretariat, New Delhi.

BY MR. FYZEE RAHAMIN.

(*See page* 1002.)

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXVII. No. 4532. DECEMBER 13, 1929.

OFFICIAL ARCHITECTURE AND THE CALTON JAIL SITE, EDINBURGH

WE suppose the subject of official architecture has a wider interest for the architectural profession than any other question with the possible exception of registration, and we have in recent issues had a good deal to say on the subject. The case for the private practitioner has been stated with, we hope, a scrupulous regard to fairness which will not be denied by official architects, whose claims to consideration as members of a great profession, many of whom are members of the R.I.B.A., must be fully recognised, and whose knowledge and ability are as freely admitted. But while all this is willingly conceded by architects in private practice, there is a widespread conviction that the growing extension of the original sphere of activity of the official architect from the care and maintenance of Government buildings and national and ancient monuments to the design and erection of State buildings is not fair to the private architect, is not in the best interests of the public, and is certainly not likely to be to the advantage of the art of architecture. We believe this expresses the views of the private practitioner, whose doubts and misgivings have been crystallised into convictions since the after-dinner speech of the Marquess of Londonderry last May, when it appeared to be indicated that in future national buildings would be carried out departmentally. Lord Londonderry, who was First Commissioner of Works at the time, referred to certain buildings in course of erection or contemplated by the Office of Works, from which it was to be feared that the growing activities of the Department are not likely to diminish, and that a strongly entrenched monopolistic position will be created unless the profession can bring home to the Government what a menace this will be to the free development of the art.

Sir Banister Fletcher had something to say on the subject in his Presidential address at the R.I.B.A. last month, when he referred to the announcement that the Office of Works were to produce designs and plans for the erection of new Government buildings on Calton jail site in Edinburgh, and stated that a letter had been addressed to the Prime Minister, pointing out that the designs for such an important building should be thrown open to the whole architectural profession, so that the best available talent should have a fair opportunity of expressing itself. The same suggestion was made by Mr. Vincent Harris at the Manchester dinner reported in our last issue. Having remarked that we must all be evangelists for the freedom of the great craft of architecture from Government control, he said: "As architects we are all keen on our craft and our desire is for the best; therefore both official and private practitioners should help to see that these national buildings must be the result of competitions open to all—public, official and private practitioners alike." The reasonableness of this suggestion does not need to be stressed, as it provides an opportunity for securing the best design, which is what, after all, we want, either by the Office of Works or by a private practitioner. It was presumably made, not with the object of promoting the interests of any architect, private or official, but because of its bearing on the question of the advancement of architecture, for we believe with Mr. Harris, "that providing we are able to keep this freedom intact, architecture will rise to a much higher level through the influence and education of the schools than it has ever known in modern times," and we should have thought that help from the Government in furtherance of this belief would have been forthcoming but for the remarks of Lord Londonderry and what are believed to be the intentions of the Government in reference to the Calton jail buildings, and the buildings in Whitehall won in competition many years ago by Mr. Vincent Harris, but which, it is stated, are to be put on one side for an Office of Works Scheme.

The facts in regard to the Calton jail site are better known. Judging from correspondence which has appeared in the Edinburgh Press, designs have already been prepared by the Office of Works for the new buildings on the site, and a scheme was submitted to the Fine Art Commission of Scotland and rejected by them. Since then another scheme has been submitted to the Fine Art Commission, but neither the designs nor the "findings" of the Commission have been published, and there have been repeated requests for an open competition on the ground that only in this way can we hope to get buildings on the site that will add to the dignity of Edinburgh. Not only have the R.I.B.A. taken the matter up with the Government, but the Royal Incorporation of Architects in Scotland, the Edinburgh Architectural Association, the Cockburn Association, the St. Andrew Society and other bodies have done so as well, and the Edinburgh Town Council by a large majority have voted for an open competition for the new buildings, though curiously enough they have since rescinded their resolution. But the proposal remains that the design of the Office of Works shall be submitted in a competition—a suggestion which we should have thought would have been accepted as a very fair way out of a difficulty, especially as there is considerable feeling in Edinburgh that the buildings to be erected on this important site should add to the dignity of the city and be made the most of in grouping and sky-line. Why should there be such reluctance on the part of the Government to agree to this proposal, if not as a right, then as a concession? All over the country municipalities are realising the importance of securing the best talent in the profession by open competition for public buildings, and there seems to be no satisfactory reason why the buildings on the Calton jail site should not be competed for in the same way, and most certainly the old, old excuse of no time will not serve in this case, as it will take nearly a year to clear the jail site.

That the citizens of Edinburgh are taking a real interest in the question is shown by the fact that the above-mentioned Societies have asked the First Commissioner of Works to receive deputations from them on the subject, and though we are informed that this request has also been refused, we can hardly credit it and are inclined to think that the First Commissioner will agree to meet a deputation when he realises, as surely he will, that this is no personal question, but one which deeply affects the whole profession, and that the Societies mentioned represent some of the best influences in artistic circles in Edinburgh, who believe that the buildings to be erected on the site need exceptional qualities of imagination in planning and design; that the stimulus of progressive thought is essential in the development of such an art as architecture, and that it is more likely to find its fullest expression in the ranks of unattached private practitioners, and in competition, than in a Department of State. In the treatment of such a problem as the right development of this Calton jail site there is needed not only skill and knowledge, but these other qualities, and who can doubt that by the competitive method which has provided us with most of our best modern buildings we should be more likely to get the best results for this important work. If the Government do not make this concession to the profession, or limit the work carried out by their Department, they will create a very real resentment in the ranks of a great profession, the members of which hold strongly the belief that their art will progress and flourish only in an atmosphere of free competition, and that the opportunity which exists and is freely used by many municipal bodies and rich corporations of securing by competition the best that architectural skill can produce shall be available and used by the State in the great buildings which it requires from time to time.

NOTES

Government Policy and Architectural Work. At a meeting of the Select Committee of Public Accounts on February 7th, the following question was put:—"There is, I think, a growing inclination to include all Government work within the ambit of the Office of Works, to the exclusion of professional architects outside, is there not?" In answer to this, Sir Lionel Earle said:—"I do not think so, because in the case of really important buildings, as for instance, the Parliament Houses in Belfast, they are built by an outside architect. The Washington Embassy also is being built by an outside architect. All the big Government offices in London are built by outside architects, and the big museums." The policy of the Office of Works does not apparently quite follow the course suggested by Sir Lionel, if we may call attention to the following projects: the new Science Museum at South Kensington; the new Geological Museum at South Kensington; the new Government Buildings and Sheriff Courts on the Calton Hill, Edinburgh; the great new Government Offices in Whitehall. Do such important works as these come within the ambit of the Office of Works or do they not? There seems considerable differences between the statements of Sir Lionel Earle and the facts. We deal with the question in our leading article.

Papers Read Before Societies. The preparation of papers which are read before professional societies as a rule involves a good deal of skilled effort, and when the reading of the paper attracts the attendance of those specially qualified to discuss its subject, it is obvious that in many cases the time allowed for the reading of the paper and the discussion thereon is quite inadequate. The recent curtailment of time allowed for papers and their discussion at the R.I.B.A. presses hardly on such a subject as that on Science Buildings by Mr. Alan Munby, and it seems evident that some means might be adopted to set free those who do not care to follow the discussion, and possibly the chairman of the meeting as well. For our own part we often feel that the discussions are of vital interest, and it should certainly be possible for those who attend the meetings prepared to add something of individual interest to the discussions on any particular subject should have adequate opportunity to supply it. We are all apt in this busy age to take a good deal for granted, but the developments of science and the adequate housing of all those connected with it cannot well be ignored by the architect. Mr. Munby's paper and its discussion provides an object lesson as to the procedure at the Institute meetings, which it would be well to bear in mind should a chance arise to improve it.

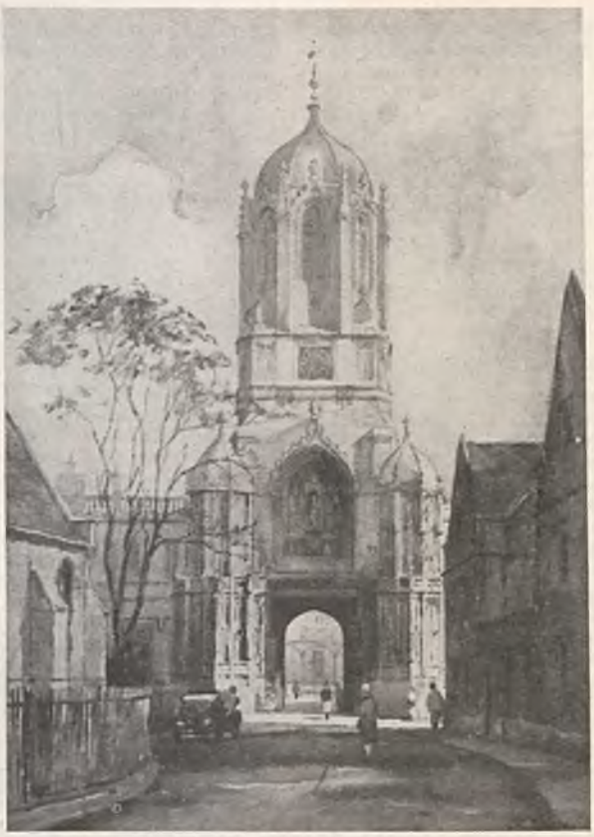
House in Finchley Road, N.W.: The Garden.

Mr. D. Barclay Niven, F.R.I.B.A., Architect.

The British Society of Master Glass-painters. In the October issue of this journal, so ably edited by Mr. J. A. Knowles, whose account of the York School of Glass running through its pages is full of interest, attention is called to the action of the Stained Glass Association of America who are asking that £1 per sq. ft. and 100 per cent. be charged on all imported windows or parts thereof costing less than (£3) per sq. ft. and 100 per cent. on all windows costing over fifteen dollars per sq. ft. The matter is still in the hands of the Senate and Congress at Washington, the object being to obtain a tariff high enough to maintain itself against foreign competition. The effect of this would be no doubt to prevent the competition from other countries, but whether of any advantage to the art is another matter. Art is of no country, and if the entrance of glass into America from foreign sources is prevented, the stained glass there is likely to be poorer. A tariff wall may prevent good glass from coming in, but it cannot improve American glass to have no longer this incentive to its own production. In establishing something like a monopoly, such a big American campaign applied to any art must surely lead to deterioration in its own production, for want of the incentive of example.

Eastern and Western Art. We are unable to dwell here on the articles of such various interest and such well-informed character, but in one of the "notes" which accompany this issue attention is called to the close identity of character—"how closely allied is Eastern art to that of European in the Middle Ages." An instance is given of a standing Buddha of sixteenth century date, which in pose, costume, drawing of drapery and design treatment was very like fourteenth-century glass. This, as we know more, is only to be expected, and we are glad to notice the growing recognition of this characteristic. In some of the Eastern Temples there may be seen capitals and cornices which, executed in the early centuries, are almost identical in feeling and beauty with early Gothic work. Nor is this surprising when we remember that all art at its best springs from the underlying identity between all human life, when expressing itself freely and in the best way.

Christmas Holiday Lectures for Children. The success of the informal talks on architecture to boys and girls which were given during the Christmas holidays last year and the previous year has, we are informed, emboldened the Council of the R.I.B.A. to arrange a further series for the forthcoming holidays. At the invitation of the Council, the Hon. Humphrey Pakington, A.R.I.B.A., has kindly consented to give the talks, which will be illustrated by lantern slides, and he has chosen as his subject, "English Architecture":—I. How it began. II. How it grew. III. What it means. The first lecture will



Tom Tower, Oxford.

From a Drawing by Mr. J. C. Beare at the Walker Galleries.

deal with the growth of the Gothic styles in this country, due to the advance of civilisation and the increasing power of man over his materials. The second lecture will describe the great awakening of the world in the days of the Renaissance, followed by the age of revivals and the romantic period, and culminating in Victorian days in the battle of the styles. The third lecture will deal in a simple way with the appreciation of architecture and special attention will be paid to modern tendencies. Old and new buildings will be contrasted, and it will be shown how each represents its own age. The lectures will be given in the R.I.B.A. Meeting Room, at 9, Conduit-street, on the following dates :—Monday, December 30, at 3.30 p.m. ; Wednesday, January 1, at 3.30 p.m. ; Friday, January 3, at 3.30 p.m. Tickets for any or all of the lectures may be obtained free from the Secretary of the R.I.B.A., 9, Conduit Street, London, W.1.

School of Architecture, Leeds College of Art.

An important development, marking a new era in the history of Leeds as a centre of architectural education, has been brought about by the full recognition of the School of Architecture of the Leeds College of Art by the R.I.B.A., so that students obtaining the Diploma of the Leeds School will receive exemption from the Royal Institute's Final Examination, the whole of the five years' course taken in the Leeds School being approved for this purpose. Although classes in architecture have been held at the Leeds College of Art since 1902, it was not until the appointment of the present head of the School of Architecture in 1921, that the first step on the way to full recognition was taken, when the full-time three years' course granting exemption from the Intermediate Examination of the Royal Institute of British Architects was organised and established. An unusual aspect of the training is the practical interest taken by the School in the civic development of Leeds. In their designs the students are given problems which are likely to be developed in the near future, and many interesting suggestions for the improvement of the city are made. The students of the School have figured largely in the national scholarships and prizes, and in the Royal Institute's professional examinations. The School takes an active part in the activities of the West Yorkshire Society of Architects, who give a number of prizes annually to their student members. Situated in premises adjoining the College of Art building, the School is attended by over sixty full-time day students and a similar number of part-time day and evening students. It is under the control of Mr. J. Addison, M.C., A.R.I.B.A., &c., and is a department of the Leeds College of Art, whose principal is Mr. D. S. Andrews, A.R.C.A.

Water Colour Drawings.

Architects will be very much interested in many charming water colour drawings by Mr. J. C. Beare, A.R.I.B.A., now on view at the Walker Galleries. Mr. Beare shows a most versatile and successful handling of subjects, both in town and country, and his knowledge of architecture enables him to give precise and accurate definition to architectural subjects.

House in Finchley Road, N.W.: Garden Front.

Mr. D. Barclay Niven, F.R.I.B.A., Architect.

GENERAL NEWS

An Appointment.

The Secretary of State for Scotland has appointed Mr. John Wilson, F.R.I.B.A, F.R.S.E., to be the chief architect of the Department of Health for Scotland.

"Clean Air."

This is the title of a new journal, the organ of the National Smoke Abatement Society, to be issued quarterly (2s. 6d. a year, post free). With the objects that it has at heart, it should be assured of success.

Proposed New Municipal Offices, Exeter.

It is announced by the Estates Committee of the Exeter City Council that it will give consideration at its next meeting to the question of the erection of a block of new municipal buildings for the city and the selection of a site.

Reopening of St. Paul's Cathedral.

The Dean of St. Paul's, presiding at a meeting of the Representative Committee of St. Paul's Cathedral Preservation Fund, announced that the whole of the cathedral would be ready for divine worship and would be reopened on June 25, 1930.

Nomination of Major R. I. Tasker as Chairman of the L.C.C.

We learn that Major R. I. Tasker, President of the Incorporated Association of Architects and Surveyors, has been unanimously selected by his party for election to the office of Chairman of the London County Council for next session.

Balmerino Abbey, Fife.

The Cistercian Abbey of Balmerino, now in ruins, arrives this month at its 700th year. Little is left of the splendid monastic buildings (which were erected in 1229 by King Alexander and his mother on a wonderful site on the Fife hills overlooking the Firth of Tay but the chapter-house, sacristy and a vaulted apartment and cells. The details of the church indicate a building in the first pointed style of the thirteenth century, with the cloister garth on the north side and not on the south, as at the neighbouring Abbey of Lindores. The Abbey was sacked in 1547.

A Hospital for Harpenden.

Mr. Halley Stewart, of Harpenden, in connection with his approaching 92nd birthday, has offered 67 acres of land in Harpenden, together with his own house and three cottages, for the founding of a local hospital. The village is at present served by a memorial nursing centre, which the donor thinks is unequal to the growing needs of the village. The governors of the memorial centre on Thursday evening decided to call a public meeting on December 23, when the offer will be submitted for public acceptance.

A Yorkshire Beauty Spot: C.P.R.E. Action.

Settle Rural District Council, Yorkshire, have investigated the representation of the Council for the Preservation of Rural England that the erection of wooden bungalows at Malham Cove, near Skipton, would be injurious to its beauty, and have decided to exercise the powers given them by the Town Planning Act to deal with this class of building. The council will convene a conference of property owners concerned, to which the C.P.R.E. and the Ministry of Health will be invited to send representatives. The council's action is generally approved.

Dr. Johnson's House.

The house at 17, Gough-square, London, which Dr. Johnson occupied from 1748 to 1759, and in which he compiled the greater part of his dictionary, is to be preserved for the nation. It was purchased many years ago by Mr. Cecil Harmsworth, who has now formed a body of governors to hold the property in trust for the nation. At a dinner in Dr. Johnson's house on Wednesday, Mr. Harmsworth handed over to the governors the trust deed and the documents relating to the securities with which he has endowed the trust. The deed sets forth that the name "Dr. Johnson's House" shall never be changed, and that the architectural features of the house, external and internal, shall be preserved intact.

Street Widening in High Wycombe.

In order to carry out a scheme of road widening, the Corporation of High Wycombe, Buckinghamshire, are applying to the Ministry of Transport for powers compulsorily to acquire properties essential to the enlargement of Creudon-street. Creudon-street adjoins the main London to Oxford road, and leads direct, through Amersham, to Hatfield. The street, which follows the line of the old Roman-British road, has historic associations, and possesses a seventeenth-century Quakers' meeting house. It is one of the narrowest and most dangerous streets in the town, and is extensively used by motorists as it is on the direct route from the main line station of the G.W.R. and the L.N.E.R. Under the scheme the meeting house, some old almshouses, and other properties belonging to the corporation will be demolished.

Middlesex Section of Western-avenue to be Begun.

As the result of fresh negotiations between the Ministry of Transport and the Middlesex County Council, arrangements have now been made by which the council will complete the sections of the Western-avenue which come within the county. Tenders are to be invited shortly after Christmas, and it is expected that the work will be begun early in the New Year. The section of the road now to be constructed is approximately five miles in length, and lies between Oldfield-lane, Greenford, and Long-lane, Hillingdon. The total length of the road, which is 100 ft. wide, is 13 miles, of which 4¼ had been constructed by the end of last year. The making of the road began at the Hammersmith end in 1920.

Northern Ireland.

Some interesting facts appear from an article by the Rt. Hon. J. M. Andrews, Minister of Labour for Northern Ireland, published by the London Chamber of Commerce, dealing with "Northern Ireland: an Ideal Centre for New Industries." Northern Ireland is, of course, part of the United Kingdom. It comprises 5,237 sq. miles, and has a population of 1,256,000 persons. The province is partly agricultural and partly industrial in character, and in order to foster the latter's activities an Industrial Development Association has been formed. Advantages of established industries in the province are: Fine ports; excellent railways and steamer lines; a wide range of suitable sites; abundant gas, electricity and water supplies; a fine working population; and, lastly, the fact that the Government, under its Loans Guarantee Acts, guarantees the payment of the interest and principal of loans made for the purposes of carrying out a capital undertaking where the application of the loan is calculated to promote employment in Northern Ireland, *i.e.*, provision for machinery, electric supply, housing, etc.

Westminster Abbey Sacristy Report.

The special committee set up by the Dean and Chapter of Westminster to review the various schemes for the provision of a sacristy which had been submitted to the Westminster Abbey authorities; to investigate any of them which merited further consideration, and to advise the Dean and Chapter on the whole question, has now completed its task, and its report, says *The Times*, will be presented to the Dean and Chapter in the near future. The members have been able to arrive at a unanimous report, which they hope will prove to be a satisfactory solution of the controversy which has raged since the suggested site for the sacristy was first announced. Archbishop Lord Davidson presided, and the other members of the Committee were Sir William Llewellyn, president of the Royal Academy, Sir Banister Fletcher, president of the Royal Institute of British Architects, Mr. C. R. Peers, director of the Society of Antiquaries, Mr. J. F. Green, acting chairman of the Committee of the Society for the Protection of Ancient Buildings, Lord Newton, and Sir Kynaston Studd.

L.C.C. Development Schemes.

The L.C.C. have decided to carry out the following works, involving the employment of workmen:—(i.) Construction of storm water pumping station, Deptford (estimated cost, £230,000); (ii.) Improvement to the River Graveney, Wandsworth (estimated cost, £60,000); (iii.) Enlargement of Lots-road pumping station, Chelsea (estimated cost, £250,000); and (iv.) Concrete river wall, Wandsworth-park (estimated cost, £30,000).

COMPETITION NEWS

"Pavilion of Light," Olympia.

We are informed that the Modern Art and Electric Light Competition organised in connection with the Ideal Home Exhibition closes to-morrow (Saturday). Entries must be dispatched so as to arrive at "Daily Mail Electrical Competition," Carmelite House, London, E.C.4, not later than midnight on Saturday.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Designs for "Pavilion of Light," at Olympia, offered by G.E.C. and *Daily Mail*. £1,000 in prizes for architects, artists and contractors. Sir E. Lutyens, Sir Duncan Watson, Messrs. P Connard, Oliver Bernard, D. G. Tanner and G. G. Wornum, assessors. Apply, Electrical Comp., *Daily Mail*, Carmelite House, E.C.4, before October 26	Oct. 18	Dec. 14
Municipal pavilion and refreshment rooms, etc., on site of old Waterloo Hotel, for Aberystwyth T.C. Mr. Arnold Thornely, F.R.I.B.A., assessor. Premiums: £100, £70, £30. Mr. T. J. Samuel, Clerk, Town Hall. Dep. £2 2s.	Sept. 27	1930 Jan. 1
Municipal Buildings, Assembly Hall and Law Courts in Victoria Park, Swansea, for the Corporation. Premiums: £750, £500, £300, £200. Assessor: Mr. H. V. Ashley, F.R.I.B.A. Mr. H. L. Lang-Coath, Town Clerk, Guildhall. Dep. £2 2s.	July 5	Jan. 18
Designs for Anzac Memorial, for the Trustees, to be erected at a cost of £75,000 in Sydney, N.S.W. Conditions from Agent-General for N.S.W., Australia House. W.C.2. Copies also at R.I.B.A.	Aug. 30	Jan. 24
Sixteen-bed cottage hospital at Ongar, cost £3,000. £5 5s. fee. Hon. Sec., Mr. C. H. Foster, Ongar Cottage Hospital, Essex	Dec. 6	Jan. 31
New Police and Fire Stations in Manchester-rd., for Accrington T.C. Mr. H. J. Rowse, F.R.I.B.A., assessor. Premiums of £250, £150 and £100. Town Clerk, Accrington. Dep. £2 2s.	Oct. 4	Feb. 28

"ARCHITECTS AND PUBLIC BUILDINGS"

FROM correspondence on this subject which has recently appeared in the *Manchester Guardian*, we take the following extracts:—

Mr. Clough Williams-Ellis writes: "The apparent intention of the Government to erect the great new office block proposed for Whitehall under the architectural direction of the Office of Works does raise an important architectural issue. Personally, I am only concerned that such conditions shall obtain as will be favourable to the largest possible output of really good building; and if a State department can put up a better show than can architects in private practice then I am all for its doing the job. But those who care intensely about architecture, and are therefore, by divine right, its best judges, will look to be assured that the Office of Works scheme is indeed worthy of its site and its opportunity, and so distinguished as to be readily accepted, whether with or without the ordeal of competition. Nor do I see why there should be any professional jealousy about it, for if the work is well done, as is postulated, it will have been the work of really competent architects, even though they are civil servants as well. One is already gratefully aware of the present quality of the Office of Works designers from the excellence of the new post offices and telephone exchanges that now distinguish so many of our towns and suburbs. But competence is not genius, and certainly one should hesitate to ensure the first if it be at the risk of denying opportunity to the second. Not that State or official action is capable either of invoking or suppressing architectural or any other sort of genius: all it can do is occasionally to afford or withhold opportunities for its expression.

Referring to the proposed new Government offices on the Calton-hill at Edinburgh, the writer continues: "As at present arranged, the building for this justly famous site will apparently be designed by an unknown civil servant in the Scottish branch of the Office of Works. He might produce a masterpiece or he might produce a botch. Both extremes are about equally unlikely: what he would probably produce is a very reasonable and seemly building that will give no one pain and no one ecstatic pleasure. But for such a rare chance as this that simply is not good enough. Obviously for such a job we want the best talent in the land—official or private, old or young. The accepted way of getting the best design is the competition; and it is probably the best way. In a case like that of a very important Government building I would suggest that the Office of Works should get out its own scheme, and the rest of us would try and best it—playing against the official design as "bogey." That is the way to keep a department up to the mark—just a little insecurity. . . . I am most emphatically for reasonable State intervention in architecture. Architecture . . . should be as much a State service as medicine or education. . . ."

Mr. Charles Holden writes: "The action of the Government in allowing the Office of Works to carry out such important buildings as the proposed new offices for the Board of Trade and the Government building on the Calton Gaol site in Edinburgh is a precedent very seriously affecting the future of the architecture of public buildings in this country. Admitted that the recent buildings of the Office of Works attain to a high standard of excellence, for which we architects and the general public have reason to be truly grateful; and it must also be admitted that a certain amount of public works must be dealt with in this way. But there must be a limit to the application of this principle—works of national and architectural importance cannot properly be dealt with by a Government department which enjoys freedom from control and is inaccessible to criticism or to the stimulus of healthy competition.

"Surely as a nation we are entitled to the benefit of the work of the best brains in the country for such important works. Specialisation in architecture is now almost the order of the day, and in ordinary practice the best experts are available in any branch of architectural work. Are these not to be available for public works also? Can it be possible for a self-contained department like the Office of Works to provide a first-class expert for every occasion? Even among first-class experts we find a wide range of opinion, as is shown in any large competition for a hospital or similar institution; and the competition almost invariably produces the best scheme. I am sure that could be said of the competition for the Board of Trade building held in 1915, when Mr. Vincent Harris's brilliant design proved—if proof were necessary—his qualification to carry out the work, or, if not that scheme, to allow him once more to show his powers to rise to a big occasion in competition with others, and even with the Office of Works."

Professor A. E. Richardson writes:—"I think I am right in stating that the whole architectural profession resents the proposals of the Government in connection with the new buildings in Whitehall. While I have nothing but praise for the ordinary routine work of the Office of Works, I do not think that department equal to the task of designing a building of national status. Surely it is a mistake to imagine that art can be ordered at will from Storey's Gate. It is well known that art will not arise at the call of a bureaucracy. Before the War a very gifted architect, Mr. E. Vincent Harris, won the competition for the identical building now proposed. His design was admired for the planning and bold treatment and, although it may now be considered slightly out of date, common courtesy demands that he should be given further opportunities to show his skill. It is a little high-handed to ignore the Royal Institute of British Architects, who arranged the original competition, and to scout the whole profession.

"If things go on as they are doing, architects will have no alternative but to become helots of a Government department. The masterpieces of building peculiar to the late eighteenth or early nineteenth century were not evolved in this manner. We have, for example, three of the finest—namely, Somerset House by Sir William Chambers, the Houses of Parliament by Sir Charles Barry, and St. George's Hall, Liverpool, by Harvey Lonsdale Elmes. The two latter buildings were the result of keen competition. In the case of Somerset House, two architects submitted schemes before the final choice was made.

"While not doubting the ability of the staff of His Majesty's Office of Works to plan and equip buildings of ordinary character, I do not imagine that a really inspiring building can be forthcoming by routine procedure. Would Sweden, for example, have gained the magnificent new town hall at Stockholm had the Swedish Government handed the work over to an official group of designers? There is extreme dissatisfaction among the younger members of the profession to which I have the honour to belong at the high-handed action of the Government. Both Mr. Ramsay MacDonald and Mr. Lansbury may be sympathetic toward architecture: but they would be doing a national service if they decided to call upon the Royal Institute of British Architects for advice in a matter well outside the range of party politics."

A correspondent signing himself "Robot" writes:—"To me as an ordinary member of the public, who indirectly has to pay a share of the cost of Government buildings, it certainly is a shock to find that the Government is in a worse position than the average business concern in so far that it has very little freedom in the choice of an architect. This is, of course, assuming that it is going definitely to adopt the system of building which is foreshadowed in the recent announcement, and that it intends to utilise its staff at the Office of Works for the design of one of the most important and prominent buildings likely to be erected in London for some time. Obviously the maintenance of some kind of building department of the Government is a necessity; but it is an appalling thought that such a department should develop into what promises to be an official art department.

"Most big business concerns, and municipalities for that matter, when they decide to build, set out to get the best possible result; and usually do this by organising a competition, and as a result are reasonably satisfied in their own minds that they at least have given themselves the opportunity of obtaining the best talent available. Everyone knows that but for such a competition we should not have the Liverpool Cathedral which we have to-day. Why, then, should we as members of the public not be entitled through our Government to explore the full possibilities and make sure that we are getting for ourselves the best that can be obtained?

"Anyone who has noticed the good and decent qualities of the post offices and various other small buildings which have been erected under the supervision of the Office of Works, will appreciate the fact that there are certainly men of talent in the Government's building service. But because these little post offices are quite pleasant in their way it does not follow that better could not have been produced; and, good as they are, one certainly has a feeling that whoever designed them was playing for safety the whole time. There is no sign of any spirit of adventure or tendency to progressive experiment. This is quite understandable, as by the very nature of things one would hardly expect startlingly new ideas to emanate from an official art department.

"The architects have their own grievance in that the Office of Works is gradually filching from them much of the work which was at one time the legitimate perquisite of the architect in private practice. This may certainly be a grievance to architects as individuals, but in a sense it is not important from the national point of view. What is nationally important is that national buildings should be the finest in the country; and it seems ridiculous to suppose that this can be attained by placing their design unreservedly in the hands of an official department, which must always be in danger of becoming stereotyped and at least extremely conventional in its outlook.

"I believe the problem which we are up against is not peculiar to this country. Similar controversies are raging abroad. I understand that in Germany, for instance, a great fight is in progress between the architects and the Government. But the architects have managed to persuade the Government after great difficulties that all was not well with the method of producing official buildings, and as a concession the Government agreed that some of the new State buildings projected should be put out to competition, but that its own officials should be allowed to compete also. Up to the present three such competitions have taken place, and on each occasion they have been won by private architects!

"If our Government feels that it has the best talent available in its office, then let it in its sense of security take a sporting chance and allow its own staff to show what it can do by taking part in open competitions for official buildings. If it wins, so much the better for the Office of Works. Incidentally I think we should all like to be assured that, even if it did win a competition, the cost of carrying out the building in regard to the professional services usually rendered by a practising architect would be no greater than that involved by the employment of an ordinary practitioner."

MURAL PAINTINGS AT DELHI

By VASUDEO B. METTA.

AT the beginning of the present century the immense harm that the teaching of Western art was doing to India was realised by Mr. E. B. Havell, the Principal of the Calcutta School of Art, who exhorted Indian artists to leave off imitating Western artists and draw and paint in the manner of their ancestors. A new school of artists soon arose in Bengal under the leadership of Mr. Abanindranath Tagore, who regarded as their masters not Raphael and Reynolds, but the painters of the Bagh and Ajanta Caves.

A little later other artists, in other parts of India, also reverted to their ancestral methods of painting. Of these perhaps the most notable is Mr. Fyzee Rahamin, of Bombay. Mr. Rahamin received his art education in the Bombay School of Art and the Royal Academy Schools in London; and also worked for a time under the late Mr. J. S. Sargent. On his return to India he was engaged by the Gaekwar of Baroda as his Court painter. From India Mr. Rahamin sent several paintings in the Western style which were hung in the Royal Academy, but after a time his ancestral instincts asserted themselves, and he began to realise that he could not express all that he wanted to through the medium of Western art. He therefore took to the Indian method of painting. Both before and after the War he opened exhibitions of his Indian paintings in London, Paris, and New York, which attracted a good deal of attention, and the Tate Gallery in London and the Luxembourg Museum in Paris bought some of his pictures. In 1926 the Government of India commissioned him (he was the first artist, Indian or Western, to be so commissioned) to decorate with paintings two domes in the Imperial Secretariat at New Delhi. That work has now been finished.

In the centre of the larger of the two domes—around the legend Allah-U-Akbar (God is great) in Arabic characters—Mr. Rahamin has painted in four divisions allegories of Knowledge, Justice, Peace, and War; the central figure in each of the pictures being larger than the rest. In the six panels below the dome are painted the six seasons of the Indian year. In the spandrels of the arched spaces are painted eight figures symbolising the Ashtanayakas, eight moods of the Indian womanhood. In the centre of the smaller dome is painted in a circle in Sanskrit characters the mystic word OM, signifying the Omnipresence and other attributes of God. This is surrounded by six concentric circles which symbolise together with the first circle in which is the word OM, the seven heavens. In the last and largest of these circles, Mr. Rahamin has painted the three Gods of the Hindu Trinity—Brahma, Vishnu, and Shiva—together with their consorts, Saraswati, Lakshmi, and Parvati—and some other goddesses and attendants. Below these come several other paintings which need not be described here.

Some idea may be given of the symbolism employed by Mr. Rahamin in his work. Justice is not depicted as a blindfolded woman as in Western art, but with deep-set eyes which look at you without appearing to do so. The figure is standing on a lotus, which means that she is above earth. She holds in her hand a pair of scales, one of which is of pink and the other of blue lotus, signifying that all colours are of equal value in her eyes. A Hindu woman worships her, while a Mohammedan woman decorates the scales, which means that the women of the two communities honour justice. The man of violence with the lathi (club) in his hand is running away from her. At her feet is the figure of a man who represents Law.

The painting of Knowledge, which is divided from that of Justice by the symbolic cypress and fruit tree, is represented by a being who is neither man nor woman, but a combination of both. It also stands on a lotus, holding in its hand a scroll, one end of which is closed, while the other is open, to signify that man's knowledge is only one-sided. The man standing to the left with a closed book in his hand represents the man who has found out that real knowledge cannot come out of books. The old man in the cave is a philosopher immersed in his thoughts, feeling certain that he alone has got true knowledge. Music and Painting are also self-absorbed. The scientist with the globe in his hand and the two architects near the mosque are interested more in the instruments of their profession than in its spirit. War has a fascinating exterior, but the skeleton shown under its clothes in the lower part of the body is meant to show its really horrible nature.

There is colour symbolism also used by Mr. Rahamin. The first group of the Hindu Trinity in the smaller dome—of Brahma, Saraswati, and the swans—is painted in pink and white, the colours of Brahma. The second group, representing Vishnu, on a blue lotus, with his wife, Lakshmi, the goddess Bhumideri, and the attendants, is painted in blue and gold, the favourite colours of Vishnu; while the third group, representing Shiva sitting on a tiger-skin and adorned with snakes and a crescent moon, with Nandi (his vehicle), the bull, on his right, and Parvati, his wife, on the left, is painted in white, gold, and green.

Mr. Rahamin, like the Indian artists of old, made no drawings of his pictures beforehand, nor did he use any models. He painted on the wall direct, drawing his inspiration from imagination. The colours used by him are also the colours which the old Indian artists used—yellow, white, green, red, blue, purple, and brown—all of which, except one, which is a vegetable colour, come from stones. The medium that he used was neither oil nor water, but the milk of a certain plant. These colours never fade and look good in any light. The paintings are all flat, the modelling being done by the line only.

Mr. Rahamin, like the artists of the Bengal School, is a nationalist in art, but his way differs from theirs. He says that the Bengali artists only imitate the artists of the Ajanta caves, reproducing their worst points as well as their best. What they should do is to study the philosophy and basis of Indian art from old text-books, interpreting those text-books spiritually and not literally, and paint accordingly.

Mural Decoration in the Imperial Secretariat, New Delhi: "Shiva and Parvati."

By MR. FYZEE RAHAMIN.

CORRESPONDENCE

Street Widening, Cambridge.

SIR,—May I, without in the least wishing to cross swords with Mr. Horder, whose championship of old buildings has again and again been magnificent, give a word of explanation on the attitude of the Cambridge Preservation Society? The street-widening scheme to which he refers was made before the War, when the wide street was part of the credo of every town-planner. It is true, as Mr. Horder points out, that as at present laid down it provides for the demolition of almost every remaining picturesque building in the only picturesque street of Cambridge, from the Post Office to the Castle. But to-day the wisdom of wide through streets in an old and crowded town is gravely doubted by many of the city fathers, and each time great sums are paid to owners in compensation for setting back their fronts increases these doubts. The town-planning committee is even now devising a by-pass which will relieve Cambridge of much of its through traffic.

With regard to the houses in Northampton-street, they were put up for auction not long ago. The Preservation Society is still heavily in debt over its Madingley purchases, and could not have purchased the houses; but by great good fortune they were saved by a public-spirited gentleman who is a member of the Society, and are his private property.

In the case of Sussex-street, most of us consider that the time is past when these pleasantly shaped cottages could be saved. Years of neglect have reduced them to a pitiful tumbledown rat-warren. The site has now no depth, as all the back part is in different hands and in process of rebuilding; and both this building and that owned by Sidney Sussex College will be set back to the new frontage line. The plea for a wider street at this nodal point in Cambridge is infinitely stronger than it is farther out. With regard to the intervening part, it must be remembered that between Sussex-street and the river is nearly half a mile of distance and in many different ownerships—widening would be a long and costly business in any case, and rebuilding as a street of one design a matter of great difficulty.

The Society endeavours by propaganda and example to dissuade owners from destroying old and beautiful buildings; and a change of attitude towards the old buildings is becoming apparent. Sometimes destruction is inevitable. The Society endeavours to encourage good design in new buildings by carefully thought out letters of gratitude to the owners of those that add most distinctly to the beauty of the streets. The first building which it picked out in this way was the "Rose and Crown" Inn, which has since been awarded the R.I.B.A. medal for Essex, Cambridgeshire, and Herts.

H. C. HUGHES, Joint Hon. Sec.,
Cambridge Preservation Society.

The Architect's Name on Buildings.

SIR,—I think M. M. is right. Architects should not sign their buildings. Many of us would never get another job if we did. Only two things could lead an architect to sign his buildings. First, that he is proud of them, and second, as a commercial advertisement. I have often wondered why Norman masons put their signs on a cube stone which had no carving or enrichments on it. They may have been paid by the superficial dressed foot. Wren did not need to sign St. Paul's, and Sir Giles Scott will not need to sign Liverpool, and if we do anything much worth while it will have its influence on posterity, signed or not signed.

Bryce is said to have presented a copy of his bust to his clients to set up in the entrance hall of the country houses he designed. There is some sense in this as it provides work for our brother artist the sculptor. We might even get Orpen to paint our portraits to bury in the foundation-stone along with the coins of the realm and the latest edition of *The Builder* containing reproductions of our greatest achievements.

WILLIAM DAVIDSON.

P.S.—An engineering friend suggests that the architect's Institute registered number might prove a sufficient signature. W. D.

Mural Decoration in the Imperial Secretariat, New Delhi.
BY MR. FYZEE RAHAMIN.

Small Domestic Building and the Architect.

SIR,—Mr. Newbold and I are not widely at variance. Fortunate indeed is the owner of the cottage before which Mr. Newbold sits in contemplation of beauties half revealed. I, on the contrary, stand before many others, some having picture postcard celebrity, and find that they owe all, or nearly all, their claims to tolerance, to environment, and kindly nature. He therefore writes from the particular, I from the general. I do not think it too much to hope for that time should do as much for the average modern cottage as for its predecessor — render it tolerable. As regards the effect of the War, Mr. Newbold would appear to have misunderstood the point I wished to make, namely, that the effort to overtake arrears of housing occasioned by the War has proved too much for the digestive powers of the village. When we built two or three scattered cottages per year we could reasonably hope that tree, shrub, and creeper would hide most of them before their presence became too obtrusive. Built in blocks of dozens, they force themselves on our attention, and a not unnatural outcry follows. T. J.

Mr. Snowden's Committee of Inquiry into the Relations of Banking and Industry.

We have received a letter on this subject from Mr. James Edward Tuke, in the course of which he writes :—

"The terms of reference to this Committee have now been made public, and in view of the paramount importance of financial policy towards industrial undertakings, the present opportunity for a thorough investigation is extremely welcome. Hitherto, all inquiries into trade depression have been confined to the administrative side of industry, but now, for the first time, the financial aspect is to be called in question.

"It seems necessary, however, to urge that the terms of reference shall be so interpreted as to include inquiry into the financial *principles* from which the credit policy of the bank flows. The tendency to blame bankers as such for our difficulties is to be deprecated. Rather should the basis of the policy they are called upon to carry out be questioned.

"It is to be hoped that the findings of the Committee will point to a way of solving the great paradox of the twentieth century: poverty in the midst of potential plenty, and even amidst large-scale unemployment of those whose labour could supply the unsatisfied needs of their fellows. The obvious and primary human purpose of industry, to deliver goods and services to consumers, should not be obscured by any secondary consideration, such as that of employment, important as this may be in its place."

[With the letter is a list of 39 signatories, persons mainly prominent in the industrial world.—ED.]

A Doubtful Practice.

SIR,—With reference to the two letters in the Correspondence columns of your issues of November 29 and December 6, signed "Turk" and "Chartered Quantity Surveyor" respectively, may I be allowed to add to the remarks of the last-mentioned correspondent the information that quantity surveyor members of this Association, known as "Incorporated Quantity Surveyors," are amenable to rules of professional conduct as strict as those of the Surveyors' Institution, and unprofessional conduct on the part of a member such as that mentioned in "Turk's" letter would be faithfully dealt with by the Discipline Committee of my Association.

G. B. J. ATHOE, Secretary, I.A.A.S.

CHARING CROSS BRIDGE

We take the following excerpts from letters on this question which have been addressed to *The Times*:—

Sir Howard Frank writes :—

"Apart from design and engineering, there is the question of co-ordinating thoroughfares throughout a wide area to allow the new bridge to exercise to the full its function as a permanent means of relief to traffic congestion. People speak lightly of widening West End thoroughfares, removing business houses, and cutting roads through suburbs, but few pause to consider the cost of such alterations to-day. The whole subject, therefore, is one which needs consideration from every standpoint. The suggestion that a single authority should be appointed to handle the traffic problem will appeal to practical men, provided it has power to deal with an area extending at least 10 miles in all directions from Charing Cross."

Mr. Mervyn O'Gorman says :—

"To approve or condemn the Charing Cross project one must see how it falls into some road lay-out, and how far it subserves some far-reaching plan which has duly foreseen the conveyance (more safely than at present, one must hope) of the enormously increased demand for road transport in 1940-50. Apparently Central London has no such 'lay-out' or plan! If there were, it is incredible that such an essential to judgment should not be advanced when the Charing Cross scheme is submitted for approval."

Dealing with Sir Percy Simmons's speech to the L.C.C. on December 3 (reported in our last issue), Mr. Ian MacAlister says :—

"Sir Percy Simmons is reported as saying : 'It was unfortunate that the criticism of the Royal Institute of British Architects should have only started last week, because the plan was approved by the Council last July, and the Institute asked for the loan of it so far back as September.'

"The plan that he says was asked for in September was not, in fact, secured by the R.I.B.A. until November 14, when I was permitted to send someone to the County Hall to copy it. It was then, through the courtesy of the Clerk of the Council, published at once in the R.I.B.A. *Journal* for the information of our members. The President of the R.I.B.A. had seen a copy of it for the first time on or about October 18. The chairman of the Thames Bridges Conference saw it first at the County Hall, through the courtesy of the Clerk, on October 21 and again later. Both the R.I.B.A. and the Conference had asked to be received in deputation by the London County Council many months earlier—in fact, before the appointment of Sir Edwin Lutyens—but this request was not granted."

Referring to the same report, Sir Banister Fletcher says :—"The Press campaign of correspondence of which Sir Percy Simmons complains began immediately upon the publication in the Press of the official scheme and could not begin before that publication, as the public had no opportunity of seeing the scheme and there was nothing tangible to criticise. So much for the small matter of the 'coincidence.'

"I do not wish to forget, in the slightest degree, the magnificent way that Sir Percy Simmons has carried through these negotiations for a road bridge, for which he deserves our unstinted thanks. I simply advocate delay in order that all the complicated aspects of the scheme may be adequately examined by responsible and competent authorities. I therefore advise, as I did on November 4, in my inaugural address as President at the R.I.B.A. :—

"(1) That a scale model be prepared of the whole site to be dealt with.

"(2) That a public competition should be advertised forthwith, without any conditions, for a treatment of the required scheme.

"This is no matter for merely carping criticism, but as long as doubts exist as to the best treatment of this vast and far-reaching project it is only reasonable and right that there should be time for further consideration and suggestions."

Dealing with that part of Sir Percy's speech in which the latter said that "he did not say it was more than a coincidence that the correspondence in the Press only started last week—the very week that Sir Edwin Lutyens was on his way to India and had no opportunity of controverting the Press campaign," Dr D. S. MacColl writes :—"Now the innocent reader might suppose, from this, that Sir Edwin Lutyens was responsible, with the engineers, for the entire 'lay-out and so forth.' Actually he was called in (under outside pressure) at a late stage to make the best of a bad job. For initial and radical defects he cannot be held responsible. Sir Edwin, of course, must speak for himself, but it would be rating his architectural intelligence low indeed to suppose that he approved of those irremovable features. It so happened that I discussed the whole scheme with him on the eve of his departure for India, so that he was fully informed of the opposition it was about to encounter."

Lord Esher asks :—"Why should Londoners not see sketches and a model of the proposed vast change in the aspect of their City? Why should they not see the form of question put to Sir E. Lutyens and his reply? If the County Council press on their Bill there is only one course open to Parliament—to throw it out. I sincerely hope that Lord Crawford, who so adequately represents the Fine Arts Commission and the Royal Institute of British Architects in Parliament, will take steps to see that the proposed Bill is not hurried through until the project is understood and more widely approved."

Professor S. D. Adshead writes :—"Quite apart from such controversial questions as to whether the bridge should terminate on the Strand or as to whether the station should come up to the Embankment on the south side, the present scheme, as published, is hopelessly confused : it is nothing more than an attempt to avoid small obstacles, minor engineering difficulties, and every sort of obstruction which more mature consideration and further negotiation could undoubtedly remove. Not only does this official scheme lack all architectural dignity, but should it be carried out as now submitted great possibilities for financial recoupment and of enhanced values will be lost."

Sir E. Owen Williams, commenting on Sir Percy Simmons's remarks that "it was curious that if this was a bad scheme that there should have been no criticism from engineers," says :—"Sir Percy Simmons would appear to consider expressed criticism uncalled for, and that the absence of criticism implies agreement. A silent audience is not necessarily a satisfied one, and it is for the audience, and not the actors, to time their cheers or jeers."

Sir Andrew Taylor writes :—"Much criticism has broken out, partly well-advised, partly ill-advised. Even a heaven-born plan would have its critics. Cannot there be held a round-table conference between the authorities who are parties to the Bill and representatives of the R.I.B.A., the Royal Commission of Fine Arts, the Town Planning Institute, and similar bodies, to discuss frankly the pros and cons of the matter; and cannot a Bill be passed on general lines by Parliament, leaving details to be settled later after further consideration? Such an opportunity of adding to the beauty, distinction and charm of London has not arisen in our generation, and it therefore behoves us to make no mistake."

Mr. H. V. Lanchester writes :—"One of the principal demands in the improvement of London passenger traffic conditions is that for the co-ordination of the suburban and Tube lines. This is unfortunately omitted from the proposals of the Ministry of Transport; but if, instead of the Tube lines being extended, these were linked up with the suburban routes, which could be done at relatively small cost, our large terminal stations would then be required only for long-distance traffic, and the facilities for transit in and about the Metropolis very greatly improved."

A Model in Preparation.

In the course of the meeting on Tuesday of the London County Council, Mr. J. P. Blake asked the chairman of the Improvements Committee whether, in view of the fact that the Charing Cross Bridge scheme had now passed the Council, a model of the lay-out and a coloured illustration of the scheme could be exhibited in the lobby for the information of members.—Sir Percy Simmons replied:—"In consultation with the Ministry of Transport it was decided last month that, subject to the approval by the Council of the Charing Cross Bridge Bill, a model illustrative of the lay-out of the scheme should be constructed, and the work is now in hand. The model will take a considerable time to construct. If it is not wanted immediately on completion for Parliamentary purposes, I will endeavour to arrange for it to be exhibited at the County Hall. A coloured plan is also being prepared. This will be exhibited in the lobby when ready."

"THE BUILDER" DEBATE

XXIV.—STEEL MASTS AND OVERHEAD WIRES.

Sir,—This question of an everlasting building material is surely wide of the point and ignores the fact that all terms are relative. "Negative" can hardly compare the permanency of our stone-built cathedrals and historic castles with that of the buried iron mains which have troubled us of late, or our steel-framed buildings which may trouble us sooner than we expect. What I wish to aim at is that whatever big undertaking we attempt should be undertaken with a responsible eye to the future. We must not solve our pressing problems of the present by half-measures which may create a more pressing problem for our grandchildren. If we are going to undertake a thing, let us do it well or leave it alone.

I shall welcome the electrical age as much as "Negative" professes to do, but when it comes I want it to present a permanent solution to the problems which it aims to solve. The thorough way is always the best way in the long run, and these overhead wires seem a most superficial method to adopt; and I believe we have been given the instinct to hate them just because they represent a fundamentally wrong principle. If we were to cut this method right out of our considerations, I believe we should readily find the capital with which to lay down the necessary plant in a way that would remain serviceable as long as many of our historical buildings have remained; but so long as we flirt with this cheap and easy way of doing a big thing, so long will capital remain in suspense.

Surely "Negative's" suggestion that these horrors will have to be placed on carefully chosen routes is an admission that they are horrors. Generally, people would pass a route as well chosen if it is out of sight of them. But they are never out of sight of everybody, and it really means that those who are patient and long-suffering will be made to suffer long, while the vocal and vociferous will see that the others get all the trouble. Does "Negative" really like the railway, and the telegraph and telephone wires? He really hates them, as I do, but has merely become benumbed in his sensi-

bilities so far as these things are concerned. If he could have things started again, would he not be grateful if all these ugly things could be put out of sight? Of course he would! and yet he can view with equanimity the approach of yet another and greater inroad into the beauties of our surroundings.

"Negative" is very comfortable about the efficacy of repeated paint-spraying treatment of the steel masts. I have no doubt that by this means they will be kept nice and tidy to all appearances, but I have not sufficient confidence in the thoroughness of the British workman to be sure that some speck in each mast will not remain, with an inroad for rust. It only needs one member to fail to make the whole structure fail. That was the cause of that disaster at the old Charing Cross station, and it arose out of a false confidence in things which look all right. The collapse of a steel mast is not likely to cause disaster to more than a few cows (or farm labourers!), but, notwithstanding, the unfortunate generation which has to meet this circumstance is likely to hate the ancestors who chose such frail means to build up a new method of existence. The figures of the experts, which seem to have so fully convinced "Negative," take none of these things into consideration. We are expected to respect some arbitrary figure allotted to "maintenance" as if it were a certain and unalterable figure under any circumstances; whereas we really know very little about it. I imagine, however, that by experience of sea-cables, the experts could tell with a near approach to certainty whether we might expect our buried cables to remain in service for, say, one hundred years, and give some idea of the condition such cables are found to be in, after such a period. Here we have something more certain to go on, and I suggest we should follow the more secure course.

Generally speaking, society is divided into two classes of people—those who appreciate and enjoy what they see, and those who do not. The latter class is an aimless one, and the bluntness of their senses has been recognised by Nature by denying them the instinct to detect what is sensible and what is not. I suggest that the other class should combine to say "No" to this thoughtless project, before all the things they hold dear disappear in a network of mechanical futility.

POSITIVE.

MEETINGS

FRIDAY, *December* 13.

Institution of Structural Engineers. Annual Dinner. May Fair Hotel, W.1. 7.15 p.m.

Plumbing Trades. Social Function. At the Borough Polytechnic Institute, S.E.1. 6 p.m.

MONDAY, *December* 16.

Royal Institute of British Architects. Debate on "Are Building By-laws Destructive of Rural Beauty?" to be opened by Mr. M. H. Baillie-Scott. 8 p.m.

TUESDAY, *December* 17.

College of Estate Management. Mr. W. T. Creswell, Barrister-at-Law, on "Arbitration in Rating Appeals." 5.30 p.m.

WEDNESDAY, *December* 18.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, P.R.I.B.A., on "Greek Architecture (3000—146 B.C.)." 6 p.m.

Liverpool Architectural Society. Mr. E. M. K. Ellerton on "Architectural Rendering."

Institution of Sanitary Engineers. Mr. H. N. Carvalho on "The Channel Tunnel." 7 p.m.

THURSDAY, *December* 19.

Institution of Electrical Engineers. Lt.-Col. S. E. Monkhouse on "The Heating of Buildings Electrically by means of Thermal Storage." 5 p.m.

MONDAY-FRIDAY, DECEMBER 16-20.

Architectural Association. Pantomime. 8.15 p.m.

ILLUSTRATIONS

PLATES

House in Finchley Road, Hampstead.

Erected on rising ground, this house has been recently completed from the designs of Mr. David Barclay Niven, F.R.I.B.A. The planning has been made to fit a rather difficult site under some fine old trees, and already the building is beginning to tone in with its surroundings. The bricks used are purple in colour, the window frames and architectural features being painted ivory white, and the sun shutters grey green. The entrance door and the doors to the public rooms are of finely figured mahogany, while the internal fittings and appointments generally are simple but of good quality. The builders were Messrs. C. Tavener and Son.

Saunton Golf Club House.

A new clubhouse and garage for 19 cars has just been completed, to take the place of an old clubhouse, for the well-known Saunton course. The new building is one story in height, so as not to interfere with the building sites further inland. The common room has been arranged so as to be used as an additional dining-room when large meetings are being held. Central heating has been provided, also an electric light plant installed in the garage block; the professional and caddies' rooms are also attached to this block. The contractors were Messrs. W. Sanders and Son, South Molton, Devon, and the clubhouse was designed by Mr. F. W. Beech, A.R.I.B.A., of Messrs. Ellis, Son and Bowden, of Exeter.

A "Chiltern Court" Flat.

"Chiltern Court" was described and illustrated generally in our issue for June 21. We now give some photographic illustrations of the interior of one flat, showing the general character of the accommodation provided and the decorative treatment. The services include the following:—Central heating to all rooms and corridors; constant hot water to kitchens, bathrooms and all bedrooms including maids' rooms; lifts to all floors; a telephone installed free in every flat; each flat equipped for wireless receiving sets connecting with a central high power set; a wall jewel safe provided to each flat; gas kitcheners of the latest labour saving type; ample power plugs and electric light points; connections for the easy installation of refrigerators; medicine cupboards in principal bedrooms; postal chutes; coal fireplaces in principal rooms, easily converted to gas or electricity; tradesmen's lifts with speaking tubes to each kitchen. The rentals, which include rates and taxes, range from £225 to £1,000 per annum. The furnishing of the flat illustrated is by Messrs. Maple and Co. Mr. Charles W. Clark. A.R.I.B.A., is the architect.

British Institution Scholarship.

This scholarship has been awarded to Mr. A. S. Gray (Central School of Arts and Crafts and Royal Academy Schools). The subject for this year was: "A Village Art Gallery and Public Library." The accommodation, locality and site were left to the choice of the student.

A Churchyard Cross.

This cross has been erected in Chiswick churchyard from the designs of Mr. Maurice B. Adams, F.R.I.B.A. (retired), in memory of his wife.

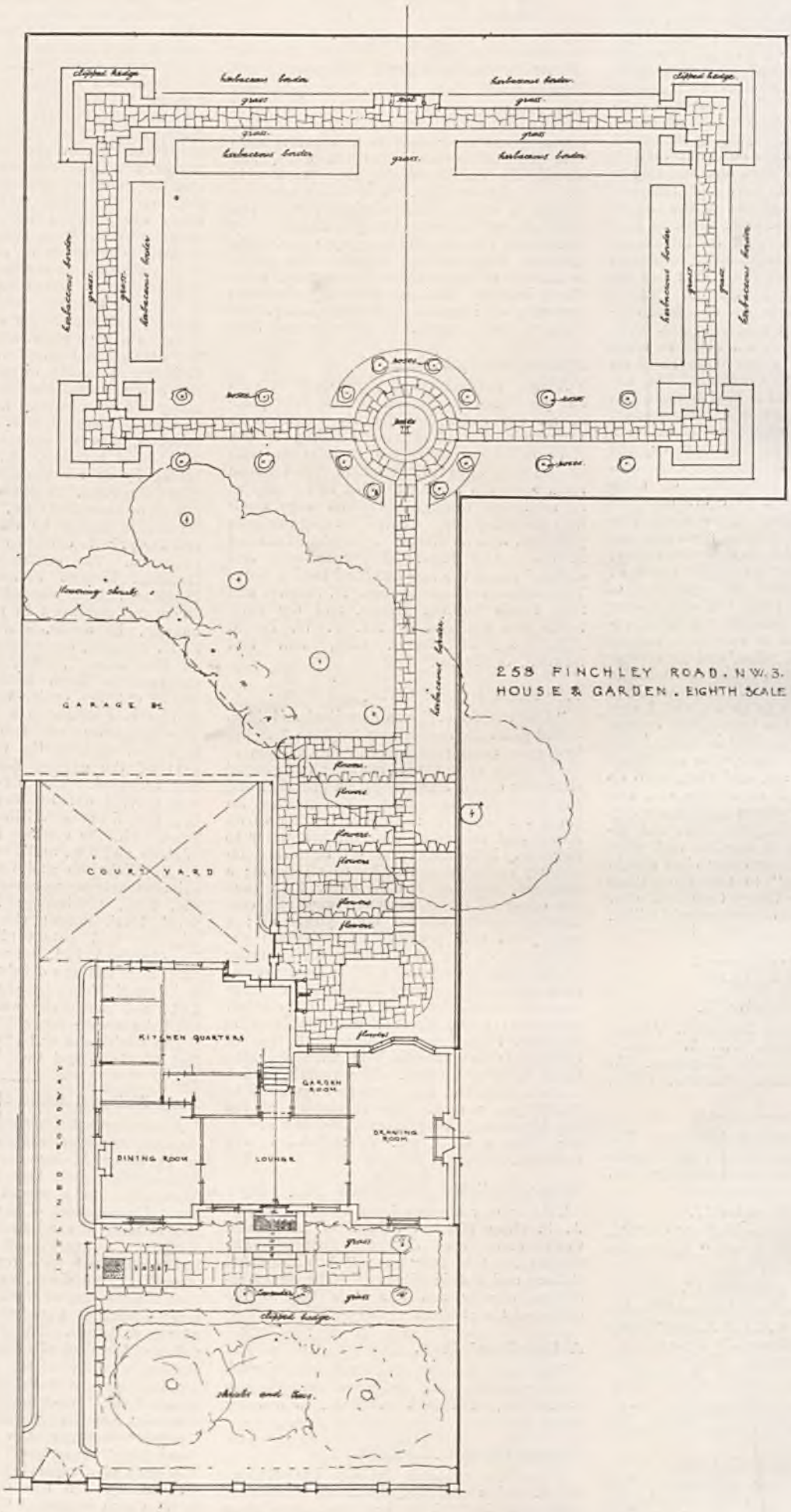
Factory Extension, Harlesden.

Since the original factory for Messrs. H. J. Heinz and Co., Ltd., at Harlesden, was built in 1925, it has been more than doubled in size by two main extensions. The latest addition, which was completed recently on the east side facing the end of Waxlow-road, is a three-story, steel-framed structure, 260 ft. by 80 ft., with a total floor area of approximately 60,000 sq. ft. The main front is faced with multi-coloured bricks, pointed in cream tinted white cement, and all floors are of reinforced concrete on steel joists. The windows are of steel, and a feature is made of the window boxes which are of pre-cast green cement. The outer bays of the roof are finished flat, the central section being a series of north-light lanterns with the southern slopes panelled out in Celotex, and the northern ones finished with patent glazing. The main staircase and lavatory floors are finished with terrazzo, the remainder of the floors being laid with Jarrah blocks. The whole of the walls and partitions throughout are finished with Keene's cement above a 3 ft. 6 in. high dado, which is carried out in green tinted Portland cement, the warehouse walls being enamel finish to a high gloss, and the office section flat painted and stippled. The top floor is divided into a series of private offices around the outer walls, the whole central space being left open to form a general office with no divisions beyond 3 ft. 6 in. high panelled barriers. This space is top lit by the north-light lanterns, and is ventilated and heated by an air-conditioning plant on the Plenum system. A goods lift and passenger lift have been installed, and the warehouse section is heated by overhead steam coils and the private offices by low pressure steam radiators. The contractors for the steel framing, Messrs. Peirson and Co., Ltd., fabricated and erected the 600 tons of structural steelwork in their contract time, namely, 13 weeks, and the builder, Mr. E. H. Burgess, commenced work on the site on November 1, 1928, and completed his contract to time, namely, in 26 weeks, fitting out the entire top floor as general and private offices in a further two weeks. The sequence of trades was so well organised that in the early part of April part of the ground floor was taken over and occupied. The air-conditioning plant was carried out by Messrs. Davidson and Co., the lifts by William Wadsworth and Sons, Ltd., the electric lighting by Duncan Watson and Co., and the steam heating by J. H. Nicholson and Co., Ltd. The main sub-contractors were:—George Rome and Co., Ltd., plastering; Hollis Bros., Ltd., wood block floors; the Luxfer Co., steel windows and patent glazing; Carter and Co. (London), Ltd., terrazzo and tiles. The reinforcement was obtained from the British Reinforced Concrete and Engineering Co., Ltd., and Ferrocrete was used for the suspended concrete floors.

The architects and engineers are Messrs. Hal Williams and Co.

Early Mediæval Architects.

A popular belief regarding the identity of the early mediæval architects was challenged by Professor A. Hamilton Thompson, president of the Leeds branch of the Historical Association, in a recent lecture on "The Early Development of the Office of Works," at a meeting of the branch at the Leeds City Museum. A great mistake, he said, which had been made with regard to the history of mediæval buildings, was in the assumption that the "clerks of work" mentioned in the early chronicles were actually the architects of the buildings. The lecturer outlined the duties of the clerk of works, or "the viewer," as he came to be called. In the early part of the fourteenth century, he said this title was changed to "supervisor" or "surveyor." Even the New English Dictionary, through a misunderstanding of the chronicles, had confused the "supervisor" with the architect. The duty of a supervisor was simply that of overlooking. In the discussion, Professor A. J. Grant suggested that, as the supposed architects had been deposed, the names of the true builders, wherever known, might be written on tablets on the walls of the buildings they designed. Such a tablet might be placed in York Minster, he added.



Plan of House and Garden, Finchley Road, N.W.

MR. D. BARCLAY NIVEN, F.R.I.B.A., Architect.

House in Finchley Road, N.W.: View from Roadway.

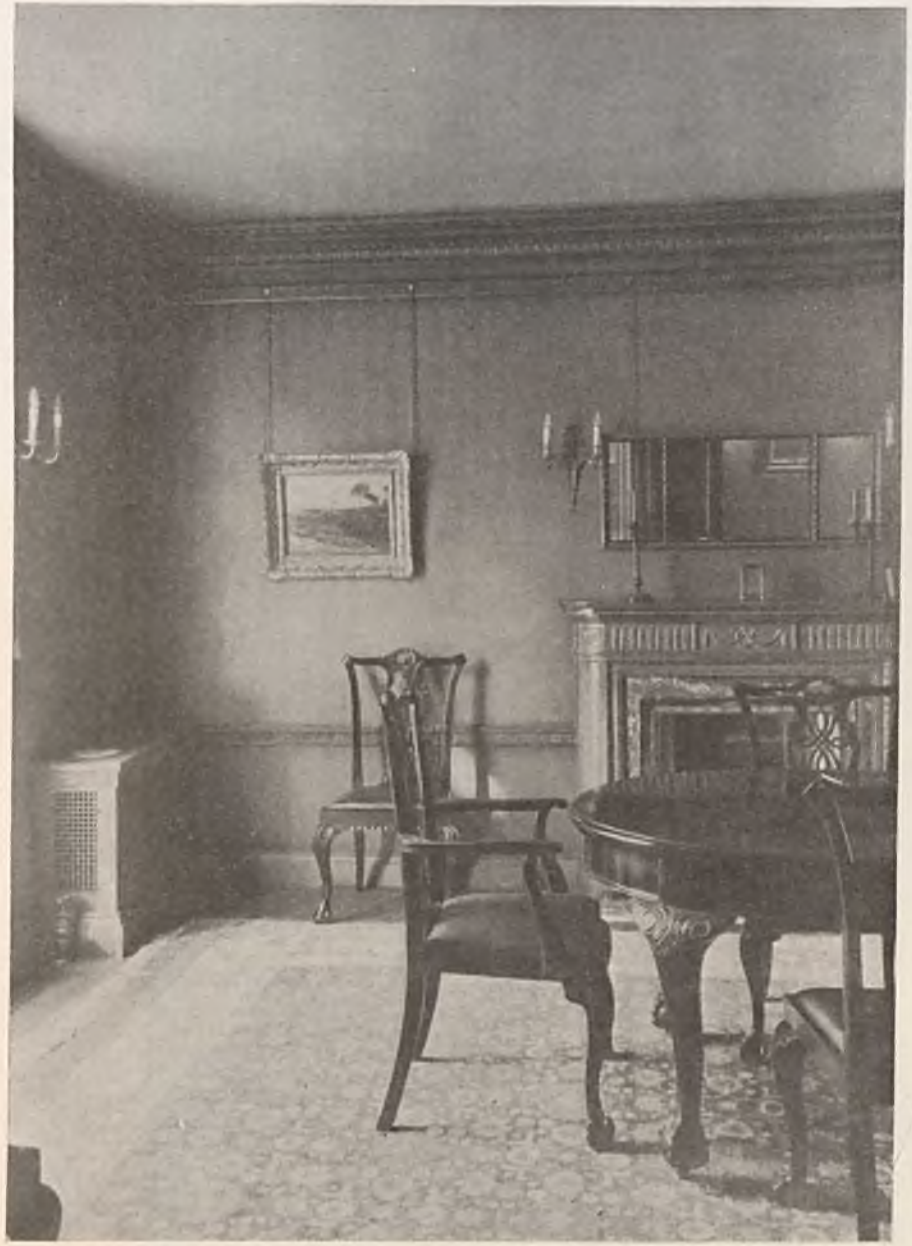
MR. D. BARCLAY NIVEN, F.R.I.B.A., Architect.

House in Finchley Road, N.W.: Detail of Entrance Front.

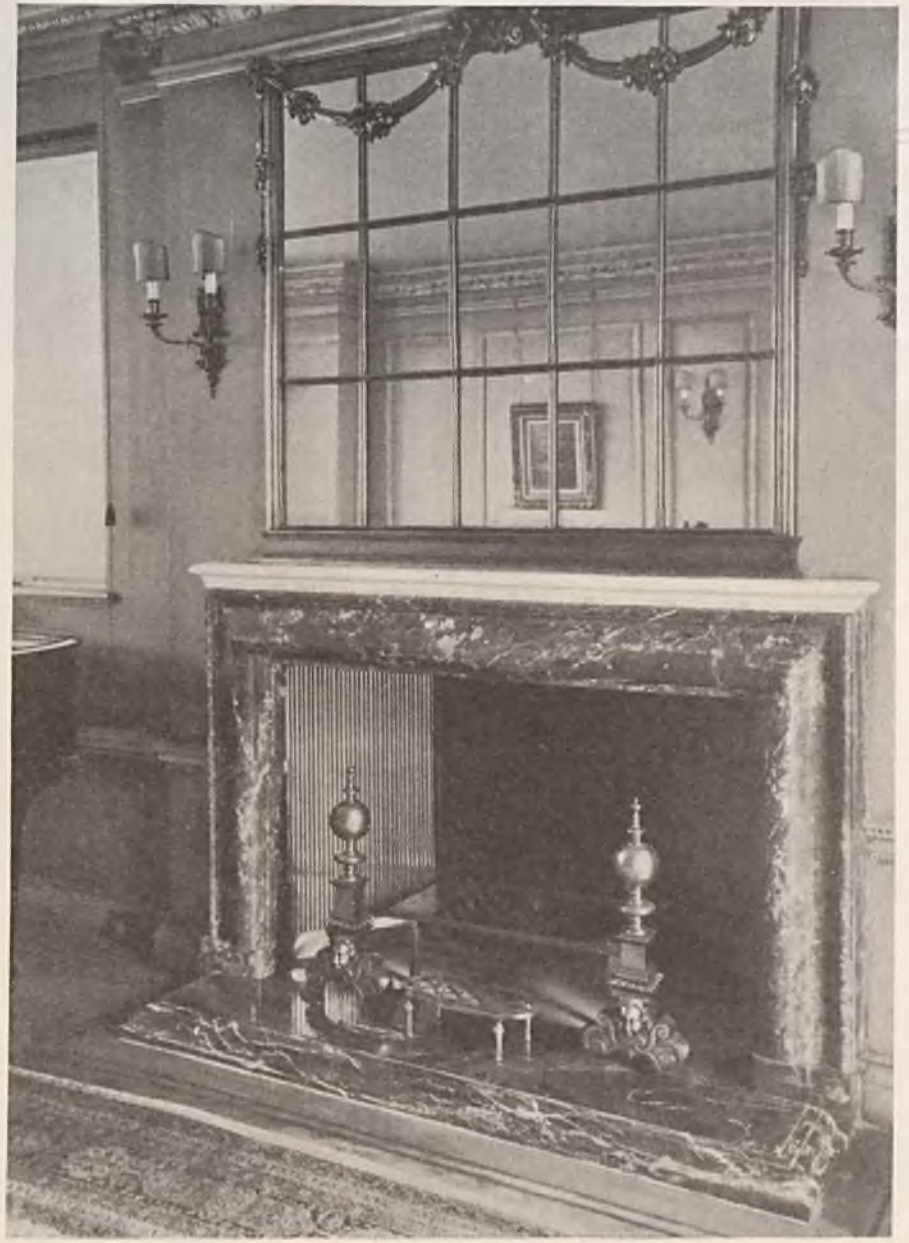
Mr. D. Barclay Niven, F.R.I.B.A., Architect.

House in Finchley Road, N.W.: Lounge, looking into Dining Room.

MR. D. BARCLAY NIVEN, F.R.I.B.A., Architect.



Dining Room.



Drawing-Room Fireplace.

House in Finchley Road, N.W.

Mr. D. Barclay Niven, F.R.I.B.A., Architect.

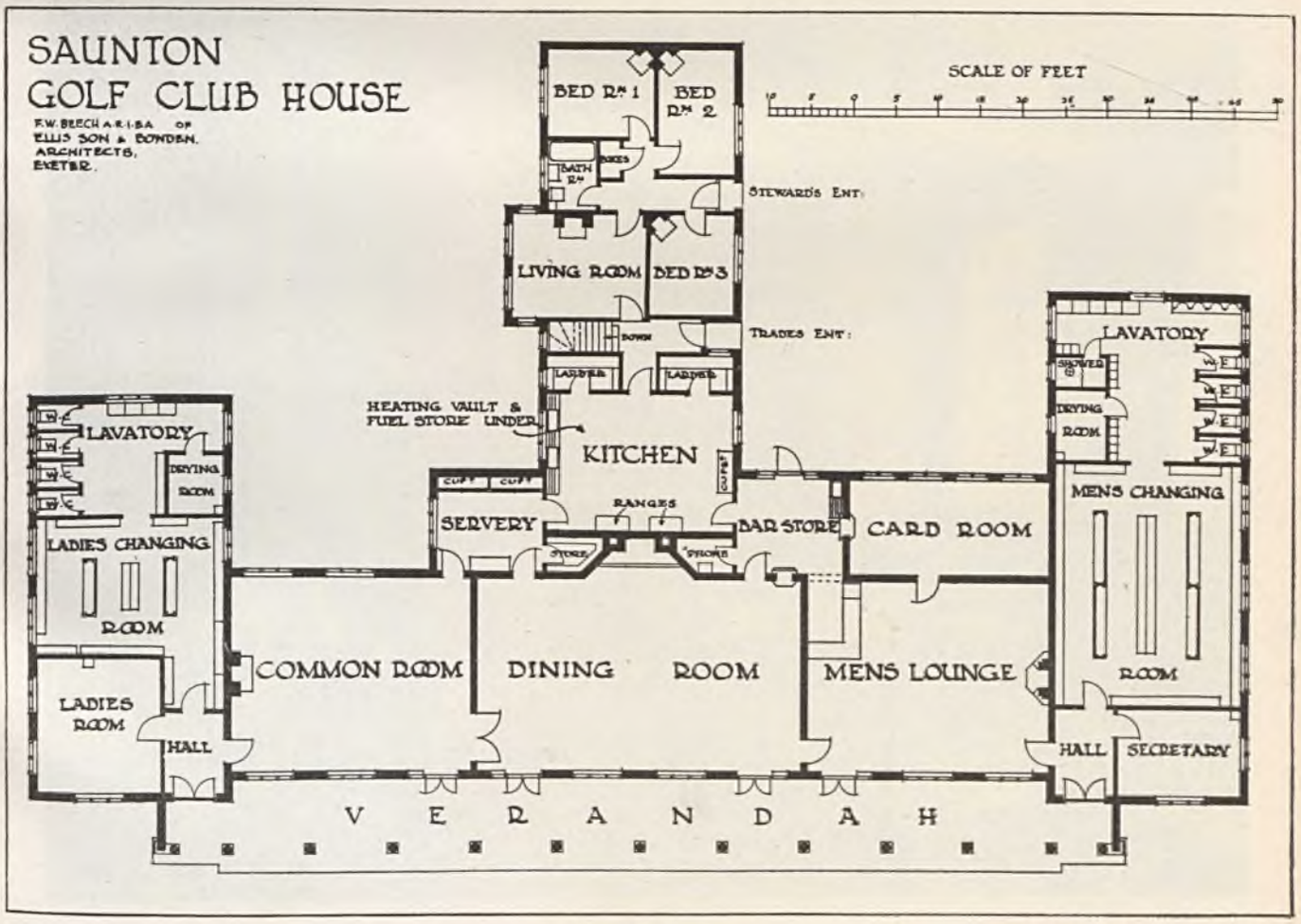
General View of Exterior.

Verandah.

Saunton Golf Club House.

Mr. F. W. Beech, A.R.I.B.A. (Messrs. Ellis, Son & Bowden), Architect.

DINING ROOM.



GROUND-FLOOR PLAN.

Saunton Golf Club House.

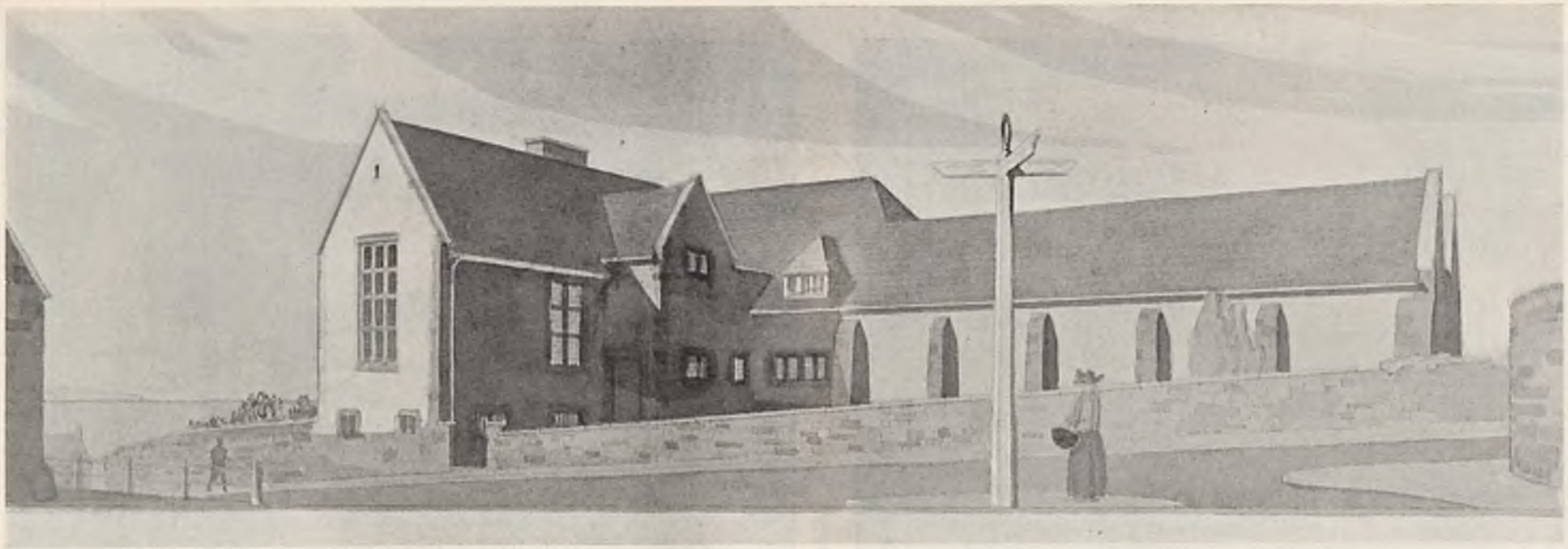
MR. F. W. BEECH, A.R.I.B.A. (Messrs. Ellis, Son & Bowden), Architect.

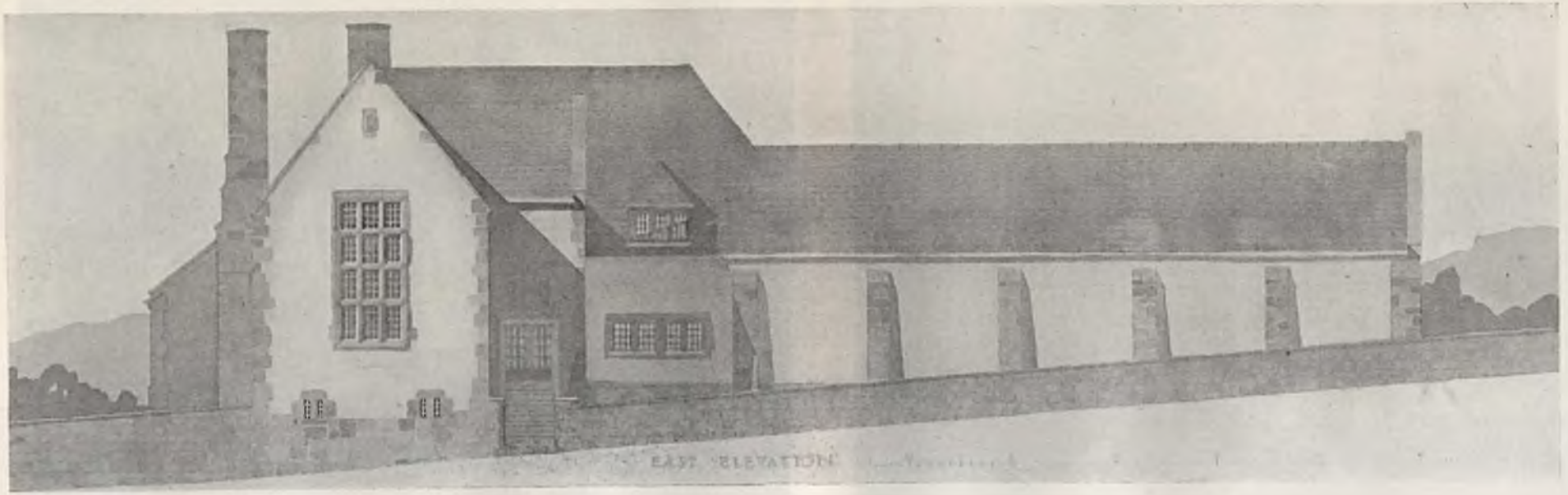
DINING ROOM.

DRAWING ROOM.

"Chiltern Court," Baker Street, N.W.: A Typical Flat.

MR. CHARLES W. CLARK, A.R.I.B.A., Architect.

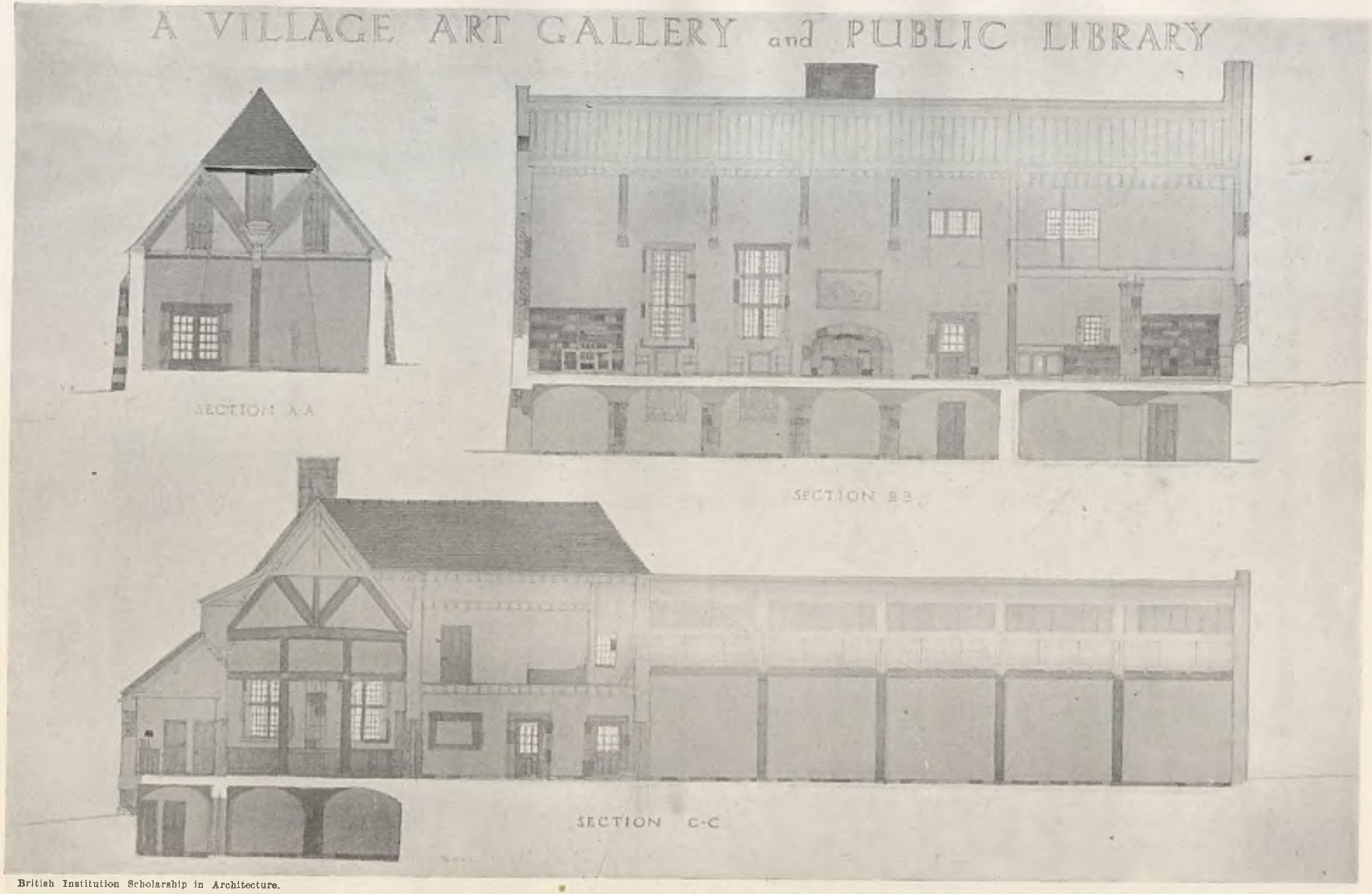




British Institution Scholarship in Architecture.

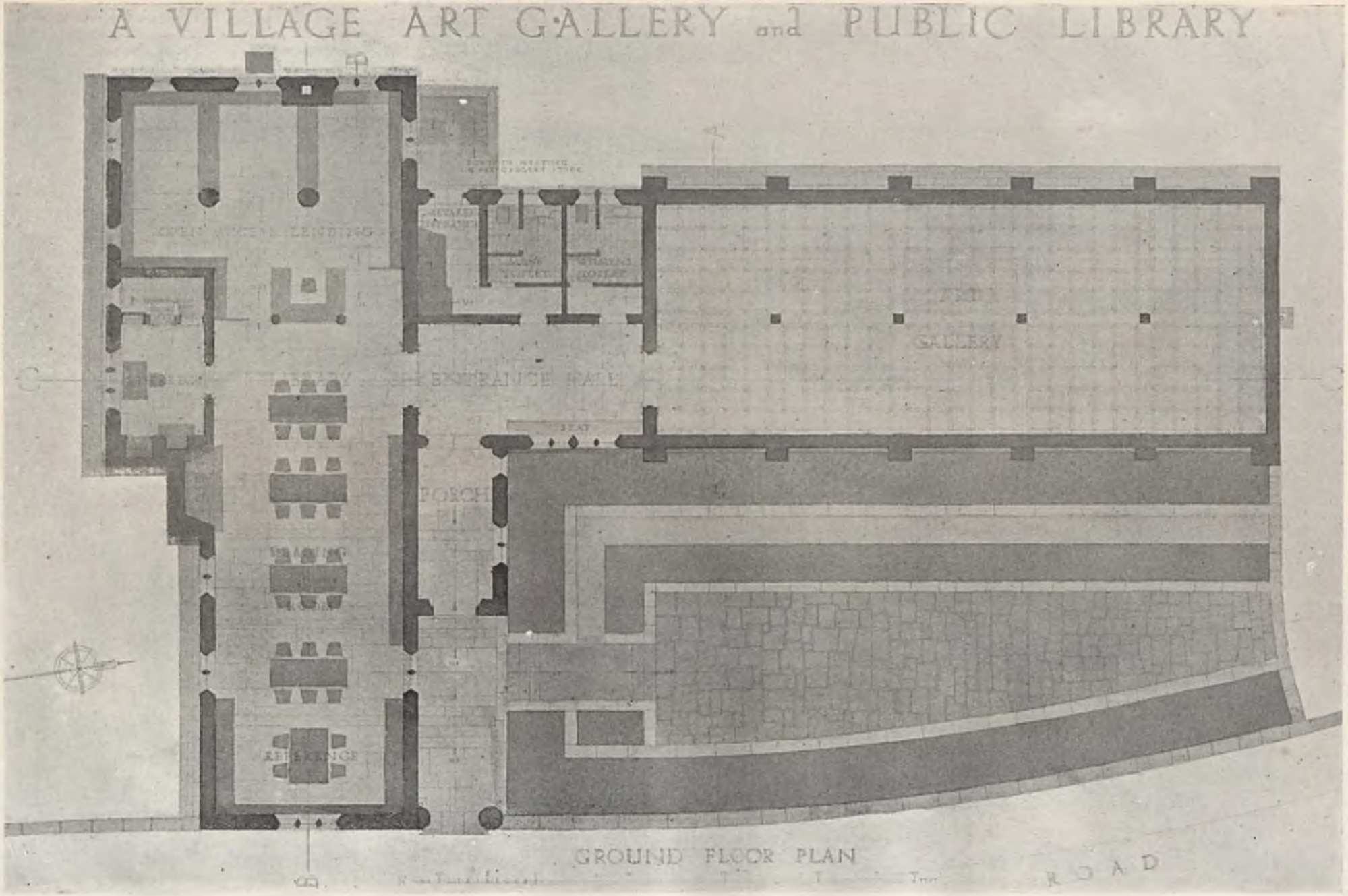
Design for a Village Art Gallery and Public Library.

By Mr. A. S. Gray (Central School of Arts & Crafts and Royal Academy Schools).



British Institution Scholarship in Architecture.

By MR. A. S. GRAY (Central School of Arts and Crafts and Royal Academy Schools).

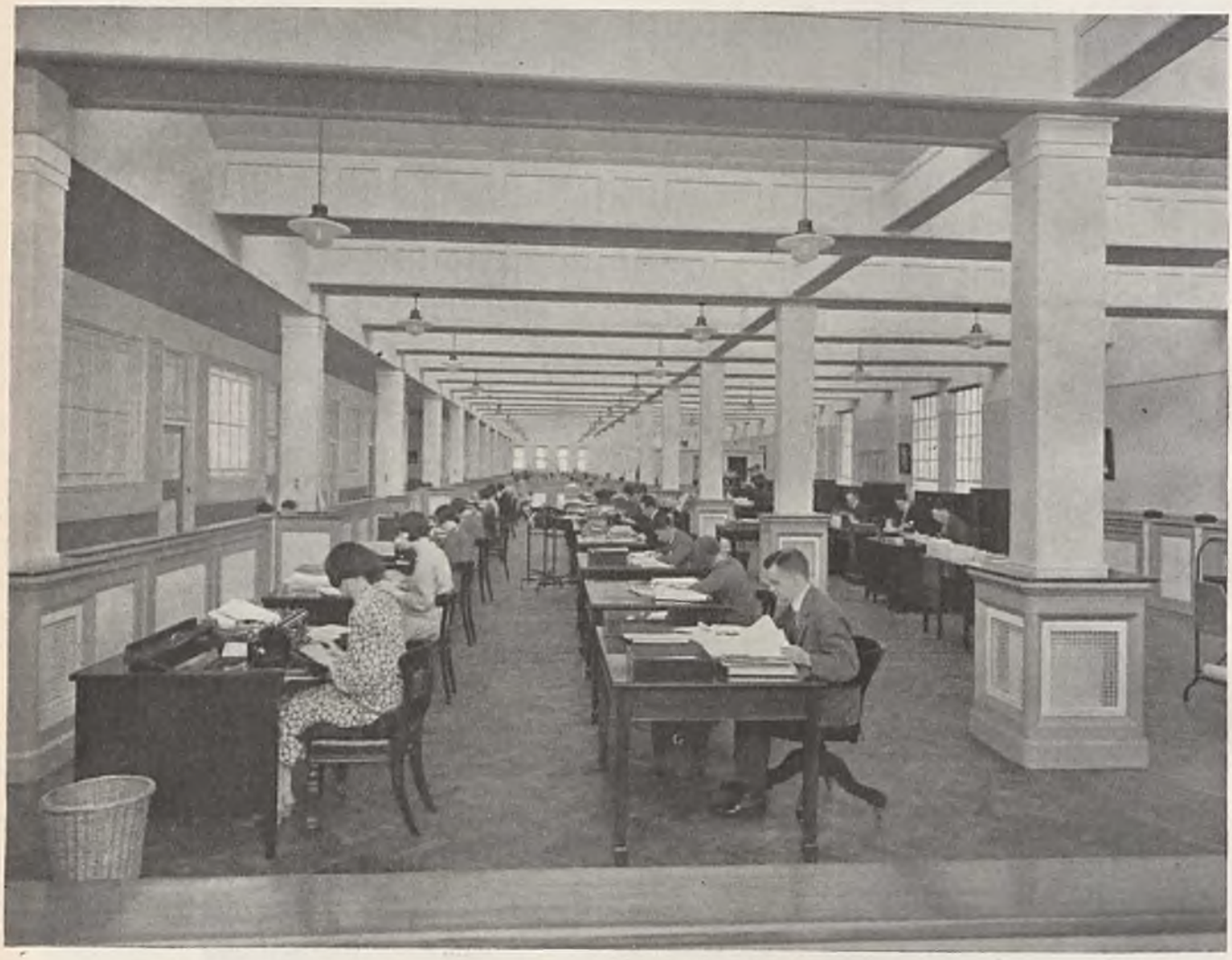


British Institution Scholarship in Architecture.

By Mr. A. S. Gray (Central School of Arts & Crafts and Royal Academy Schools).

Memorial Crucifix, Chiswick Churchyard.

MR. MAURICE B. ADAMS, F.R.I.B.A. (retired), Architect.



NEW OFFICES.

FRONT ELEVATION.

Factory Extension, Harlesden.

MESSRS. HAL WILLIAMS & CO., Architects.

MORE GREEK STUDIES—X

By W. R. LETHABY.

THE IONIC ORDER.—(*Continued.*)

The Temple of Mars, Halicarnassus.

Vitruvius describes the city of Halicarnassus with a succinct accuracy which shows someone's close observation and suggests that he must have seen it. "The place is curved like a theatre. On the lowest tier by the harbour is the Forum. About halfway up the curving slope is a broad wide street, in the middle of which rises the Mausoleum. At the top of the slope in the centre is the Temple of Mars (Ares), containing a colossal acrolithic statue by Leochares, or, as some say, by Timotheus. On the right of the summit is the Temple of Venus and Mercury close to the Spring of Salmacis. On the left King Mausolus built the royal palace which commands a view of the Forum, the Harbour, and the Fortification."

In the annexe of the Mausoleum Gallery at the Museum is the upper drum of an Ionic column surrounded by an elaborate band of decoration in the same tradition as the Naucratis columns, but in the developed manner of those of the Erechtheum. It is described in the *Catalogue* thus: "No. 999. Neck of Ionic Column (?) ornamented all round with an anthemion and acanthus pattern in low relief. From the Castle of Budrum [Halicarnassus], where the drum had been inverted, hollowed out, and used as a mortar, there is no evidence that it came from the site of the Mausoleum, though this is not improbable; if so, however, it cannot have formed part of the orders. Height, 1 ft. 10 in.; diameter 3 ft. 2½ in." That it actually was the top drum of a column is proved by remnants of 24 flutes; that it could not have come from the Mausoleum is shown by the fact that the column to which it belonged was considerably larger than the main order of the great tomb. In a former study of this fragment (*The Architectural Review*, July, 1915) I gathered what evidence I could find and came to the conclusion that it had belonged to the Temple of Ares (Mars), which contained the celebrated statue by Leochares, and had probably been built by Mausolus. It cannot be doubted from the delicacy of the carving, the form of details, especially the acanthus, and the expanding profile of the top of the shaft, that it was not later than the middle of the fourth century. The stiff acanthus leaves in the carving are characteristic of the earlier half of the fourth century.

Halicarnassus was visited by "Palmyra" Wood in 1750-51. In his MS. notes at the Hellenic Society he describes: "The foundations of some very great building. It may be 100 yards in front, and is supported by an exceedingly good rustic wall which in one corner was entire enough to measure. Its height was 11 ft., but I cannot say how much to allow for the ground, which was very much raised. There are the ruins of an outward wall, but upon this foundation are still extant two broken pieces of Ionic Pillar of very good marble, whose diameter, we found, was 3 ft. 10 in. These pillars denote some vast structure, which the foundation confirms. If Budrum be Halicarnassus, I know of no spot so proper to place the monument of Mausolus." This site is described by Wood as being some 200 yards farther up the hill than "the Doric colonnade," and it is evident, from this and other indications, that what he saw were remnants of the Temple of Mars. Donaldson, in the following century, gave the following account of Halicarnassus: "In the plan in the centre of the town are the remains of an extensive row of columns of the Doric order, five or six of which still exist with their entablature entire. Behind, on a raised terrace, are constructions; and still farther north, on another platform, surrounded by a regular built wall, may be found fragments of a large Ionic edifice, most probably the Temple of Mars" (*The Classical Museum*, Part XVI).

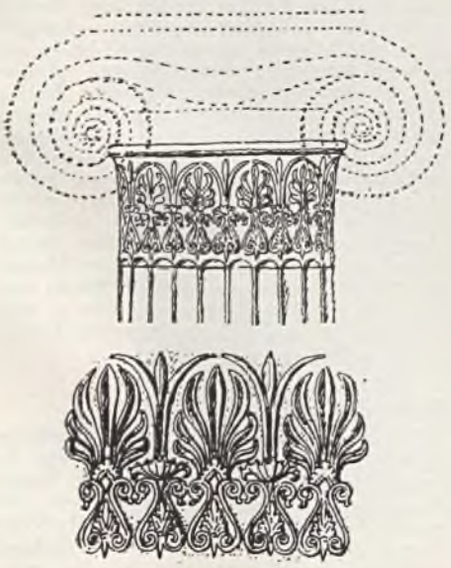


FIG. 10.

FIG. 11.

Wood may be said to have discovered the building in the sense of recording the site, while Donaldson suggested that it was the Temple of Mars. From their observations we find that the columns of the temple were Ionic, and Wood's measurement shows that the diameter, 3 ft. 10 in., would perfectly well suit the upper drum now in the Museum, which is 3 ft. 2½ in.; 3 ft. 10 in. is so near 4 Greek feet that we may suppose that this was the true dimension. Combining this column with records of the discovery of foundations on the site of the Temple of Ares, I proposed a restoration of the plan of the structure. Now I should like to amend my restoration of the capital by giving the volute a double spiral like that of the Erechtheum capitals. Supposing that capitals of this type are scarcer than they are, I refrained from that obvious course before. A fragment of a small capital from Athens in the Museum has a double volute, and so have the capitals of the Nereid Monument; both these seem to be of the fourth century. Later examples have been found at Delphi (Pomtow).

When I made my former little study I did not press the resemblance of the column to those of the Erechtheum by giving the volutes a double spiral, for it is clear, from the example at Locri, that all Ionic capitals above elaborate necking bands were not of this variety. The capitals of the Nereid Monument show also that the double spiral was used without being associated with necking bands. Further study of the Nereid Monument and the Mausoleum, however, has suggested to me the probability that architectural works at Xanthus are much later than is generally supposed, and were almost certainly influenced by the famous Greek monuments of Halicarnassus. If the Nereid Monument depended as a whole on the Mausoleum, the double spiral capitals of the former more probably imitated capitals at the Temple of Ares than those of the Erechtheum. A definite point in favour of this view is the fact that the sides of the volutes of the Nereid Monument are similar to those of the Mausoleum, and not like those of the Erechtheum. The necking bands might well have been omitted at the Nereid Monument because of the very small scale of the work. The carved band on the fragment we are discussing is exceptionally large, and delicate in workmanship; the capital associated with it must have been of special beauty. I would now restore the capital with double spirals (Fig. 10). A capital of the same type, but later in date, was found at Ptolemais, in Syria (Renan's Mission). Fig. 11 is sketched from a capital in the Louvre, which, I think, may be this last; possibly it derived from the Temple of Ares itself. Our drum with the carved band is such an exceptional work that it should be brought out of the basement and exhibited. It would make a pedestal for another object, and take no room.

The statue of Ares in this temple may, I think, have been like the standing figures in armour known in several bronzes. The imperial Roman statues followed the same tradition.

No restoration of even the plan of the temple seems to have been drawn before my attempt was made, and I am going to claim it as my own special temple!

Ionic Capitals.

At the Museum is gathered, distributed here and there, a remarkable collection of Ionic capitals, probably a score. These examples would furnish an excellent body of material for the study of what the books call the "Ionic order." The first result of the study is surely that there is very little that is fixed in this "order." Another result might be to stir our curiosity regarding the origin and meaning of the type and the secret of its persistence. On these questions a considerable body of literature exists. So far as I seem to see for myself, the facts are something like this: An Ionic type of column was developed in Western Asia as a simplified palm tree—a sacred tree—by the second millennium B.C. It was derived by Greek colonists in Asia Minor from the Hittites, or traditions left by them. In these same Greek colonies Egyptian elements were also absorbed — the "honeysuckle" or "palmette" ornament is the Egyptian lotus and bud. Some examples found in Cyprus are almost identical with the lotus band from

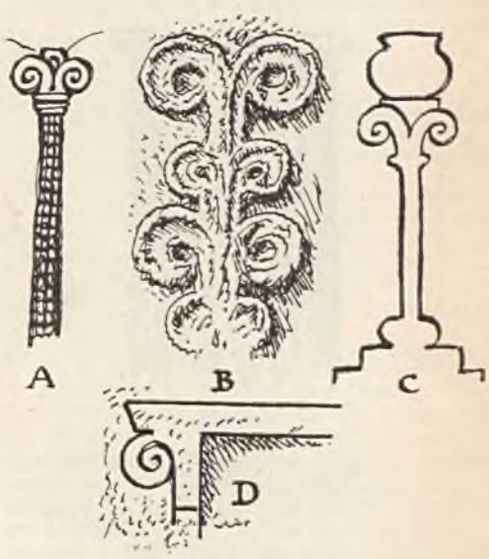


FIG. 12.

Naucratis. This lotus ornamentation, thought sacred or lucky, was associated with the sacred type of pillar; and the capital itself came to be thought of as of lily form. The persistence of, and regard for, the type depended on these ancient traditions—on a sense of sacredness and good luck.

With early examples of the Ionic capital two forms of ornamental leaf-work are frequently associated. One of these is the row of petal-like forms that developed into the carved moulding which we call the "egg-and-tongue," and was probably derived from the lotus. The other is a series of pointed leaves, which seems to have become what we call the Lesbian leaf-moulding. These were sometimes so very long and sharp that I think it possible that they may have originally represented palm leaves. Some long leaves of this type appear in the Crœsus Temple at Ephesus. A remarkable early capital with long, pendant leaves has recently been illustrated by Mr. Dinsmoor (Anderson and Spiers) and by Professor Robertson. It ought to be pointed out that Professor Robertson separates the earlier type of volute capitals, in which the scrolls rise vertically, from those which have "a separate cushion laid upon the shaft." There are such a large number of representations of this type in vase paintings, and so many intermediate examples actually existing, that I cannot see any possibility of such separation. Fig. 12, C, is painted on the Clazomenæ Sarcophagus. He goes on to doubt whether this type of capital was derived "from particular vegetable forms, palms, lotus, or lily," and decides that for "such speculations the evidence is insufficient." If the emphasis here is on "particular," it would be quite easy to accept this statement. On the wider ground, however, I believe there is overwhelming evidence that the Ionic type was a simplified form of representations of a sacred tree. I have just found, Fig. 12, B, a carving described as the "Tree of Life," on an altar found in North Palestine, of Hittite origin (A. Jeremias, *Old Testament and Ancient East*). This same altar had corner "horns," which seem to have been perfect volutes. Fig. 12. A, from an early Babylonian tablet, is obviously both a palm tree and a column. That some symbolical meaning was long attached to volute capitals is suggested by the fact that they are carved on the jambs of early tombs in Cyprus. An example which must be an offshoot of the same tradition may be seen on a small grave slab from Carthage, in the Museum (Fig. 12, D).

The Palestine Exploration Society have casts of door jambs from Lachish which have volutes of similar type.

Fergusson remarked, about 80 years ago: "It is now impossible to doubt that all that is Ionic in the arts of Greece is derived from the valleys of the Tigris and the Euphrates."

FIG. 13.

The substance of this observation has now been immensely strengthened by new knowledge of Hittite art. As we saw in regard to Ephesus, Ionic art so largely depended on derivations from the Hittite that it may be regarded as a continuation of the older native art of Western Asia. Ionic columns, with

FIG. 14.

their curving capitals, were *ashera*. Greek Asia Minor was saturated with Hittite influence: Mausolus was, I believe, a Hittite name.

A very beautiful early Ionic capital of a semi-vertical type in the Museum, 443, is described as "from the Temple of Artemis, Eucleia, Athens (Inwood)." I should date it c. 480 B.C. It is not described in the new catalogue of archaic things and has recently been banished to a corner of the Mausoleum Room although it is Athenian. I gave a restoration of it in *The Builder*, November 5, 1920. A fragment of a volute with double spirals from Athens, in the Museum, has a flower carved in the "eye" and differs from the capitals of the Erechtheum also in the scale. It is similar to a capital illustrated by Puchstein and it might be worth while to obtain a cast of that and restore our handsome fragment.

The upper drum of a column, 420, described as "Necking of Ionic column copied from the East portico of the Erechtheum," seems of suitable size to be from the late and little circular temple of Rome on the Acropolis, and should probably be assigned to it as I suggested more than 20 years ago.

I seem to have a dim memory that in the basement I once saw a plain but elegant little Ionic capital from a stele of the Athenian type.

(Figs. 13 and 14 are from Wood's MS. book: the former is a column from the Theatre at Hierapolis; the latter seems to have been at Laodicea.)

. . . . . .

Concluding these notes I would venture to point out that during the last half century we have fallen behind in these studies.

We should, I would suggest, be helped and stimulated by an account of Greek art based on a study of our own material. The whole field is so great that there is need of selection and concentration, and we have to understand what is in our own Museum thoroughly. A well-documented account of British exploration and discoveries would be stimulating. In the two centuries from c. 1660 to c. 1860 we led the way in these fields and did wonderful things. Our students of art, especially the thousands who pass through the schools in the Bloomsbury district, should go deeper than making occasional drawings of "ornaments." They should be encouraged to know some one work thoroughly and to make restorations of it. The students of the Ecole des Beaux Arts have a long tradition of making such restorations which appear to be stored in a collection. This is said from the point of view of archæology and not from that of building, but there is probably room for at least one technical archæological expert.

With all our art instruction we do not seem to have highly trained architect-draughtsmen who can illustrate books such as are produced in France, Germany, and Austria.

At the Museum it will, I hope, be realised that valuable help might be obtained from students of architecture and sculpture in drawing and interpreting the wonderful things stored there. Some selected students might be specially attached to the Museum and given facilities to study in the Cellars. Perhaps a travelling studentship might be made tenable there.

It is desirable that the meaning attached to the word scholars should be expanded to cover experts in stones. Not only should the labelling at the Museum be very much fuller than at present, but the information thus given should be revised much more frequently.

THE ARCHITECTURAL ASSOCIATION

BUILDING MATERIALS BUREAU

THE Building Materials Bureau which has just been opened by the Architectural Association at 34, Bedford-square, originated in August, 1928, in a small collection of materials got together for the purpose of illustrating lectures to students. Frequently added to, this collection grew to such considerable proportions that its value to the practising architect became apparent, and it was decided to establish a bureau for the benefit of the architectural profession. The object is to maintain an up-to-date collection of samples on a scale which is impossible in an architect's office, and thus provide in a convenient way means by which architects can keep in touch with all the latest developments in the manufacture of materials and articles used in building, and have available for reference a wide range of samples of standard materials such as bricks, tiles, timbers, etc. The Bureau is under the direction of a special committee appointed by the Council of the Architectural Association, and is in charge of a curator (Mr. J. K. Winser) and an assistant. It is open daily between the hours of 10 a.m. and 6 p.m. (Saturdays, 1 p.m.), and is, we are informed, in continual use by architects.

Samples of materials are only exhibited in the Bureau by invitation of the Architectural Association, and the Council reserves to itself complete freedom in their selection and retention. Samples are deposited in the Bureau and accepted on the basis that they become the property of the Architectural Association. No payment of any kind is accepted from any firms exhibiting. No guarantee, we are informed, can be given that materials and samples sent to the Bureau will be exhibited permanently, as they can only be retained on exhibition during such period as the committee considers them to retain interest to those using the Bureau. The Council of the Association have given the strictest instructions that under no circumstances are opinions to be expressed, favourable or otherwise, on materials exhibited, by anyone employed by the Association. For the guidance of those consulting the Bureau the following information is as far as possible recorded: Names of manufacturer; where obtainable; buildings in which material has been used (with names of architects); approximate cost; any other special technical data of value to architects.

Firms sending exhibits to the Bureau are requested to furnish such information as is available under the above headings and also to send trade price-lists. They are also invited to keep the Bureau supplied with up-to-date information concerning their exhibits. The exhibits in the Bureau are divided under the following headings:—Acoustic materials; asbestos cement goods; bricks and ceramic materials; cement, limes, plasters and accessories; electrical goods; fabrics, carpets and upholstery materials; flooring materials; glass; glazed tiles; ironmongery; marble (natural and artificial); marbolithics and scagliola; metalwork of all types; paints, stains and varnishes; plywoods; roofing materials; stones (natural and artificial); thermal insulating materials; timbers (including a special exhibit by the Empire Marketing Board); wallboards; water fittings; windows and skylights. There is also a large collection of trade lists and commercial directories for reference.

Sutton Coldfield Parish Church.

In connection with this work, illustrated in our last issue, we are informed that the external repairs were carried out by Messrs. Bridgeman & Son, of Lichfield, who also executed the screen and fittings in the Vesey chapel. Mr. W. H. Bidlake, M.A., designed and carried out some years ago the vestry shown in the exterior view.

ROYAL ACADEMY SCHOOLS

The President of the Royal Academy, Sir William Llewellyn, presented on Tuesday night the prizes won by students of the Royal Academy Schools. Amongst those present were Sir David Murray, Mr. W. L. Wyllie, Lord Crawford and Balcarres, Mr. W. W. Russell, and the Secretary, Mr. W. R. M. Lamb.

Sir William Llewellyn, in his address to the students, said that two things which went to the making of high artistic work were drawing and design. Drawing, especially of the human form, had always been considered, and undoubtedly was, the best training, and of the greatest importance in the beginning of an artist's career, no matter what branch of art he intended pursuing. It was the means by which all other qualities of art were expressed, and must be practised with the greatest perseverance. The drawing and the study of the human figure must be accompanied by the cultivation of imagination, and for this purpose their exercises in composition must be pursued with unwearying perseverance, in order to develop the imaginative faculty.

Every artist should also have a knowledge and appreciation of the artistic side of architecture. Nearly all the painters of the great periods, and especially of the Italian schools, were capable of placing their figures in correct and beautiful surroundings, much of which was designed by themselves. When they thought of the extreme value architecture was in the composition of figure subjects, both in painting and sculpture, it was to be regretted that it did not form a compulsory part of the education of the student. Academicians had long felt the need of a department in their schools to deal with this matter, and it was with pleasure that he could tell them that the services of an eminent architect had been obtained to take in hand this part of a painter's and sculptor's education.

The awards included:—

Historical Painting.—R.A. Gold Medal and Edward Stott Travelling Studentship (£200), Lilian Dorothy Sawyers.

Landscape Painting.—Turner Gold Medal and Scholarship (£50), Teng Hiok Chiu.

Landscape Painting.—Creswick Prize (£25) and Silver Medal, Joyce Wansey Thompson.

Design in Monochrome for a Figure Picture.—Armitage Prizes, 1st (£30) and Silver Medal, Kathleen Muriel Sheppard; 2nd Prize (£10) and Bronze Medal, Daisy Rotinoff; *Proxime Accessit*, John Strickland Goodall.

Design in Water Colour for the Decoration of a Portion of a Public Building.—1st Landseer Prize (£30) and Silver Medal, Madeleine Edith Robinson; 2nd Landseer Prize (£10) and Bronze Medal, Diana Beatrix L Pullinger.

Composition in Colour.—Prize (£5) and S. J. Solomon Silver Medal, Elizabeth Joyce Rivers.

Two Paintings of a Figure from the Life.—1st Prize (£10) and Silver Medal, Elsie Dalton Hewland; 2nd Prize, Bronze Medal, Enid Annie Abrahams.

Portrait Study of a Lady in Evening Dress, showing Arms and Hands.—Arthur Hacker Prize (£30) and Silver Medal, Marjorie V. O. Morris.

Two Paintings of a Head from the Life.—Arthur Hacker Prize (£20) and Silver Medal), Ernest Thomas Perry.

Set of Four Drawings of a Figure from the Life.—1st Prize (£10) and Silver Medal, Elsie Dalton Hewland; 2nd Prize (£5) and Bronze Medal, Alice Headley Huckle; *Proxime Accessit* (extra Landseer Prize, £5), Lilian Dorothy Sawyers.

Set of Three Drawing of a Head from the Life—Prize (£5), Cecelia Engel; *Proxime Accessit* (extra Landseer Prize, £5), Walter Goodin.

A Painting from a Cast.—1st Landseer Prize (£10), Evelyn Houghton; 2nd Landseer Prize (£5), Margaret Isabel Strutt.

Drawing from the Antique.—Prize (£5) and Silver Medal, Margaret Alison Nicol.

Pencil Study of a Landscape Foreground.—Duff Greet Prize (£10) and Silver Medal, Margaret Isabel Strutt.

Composition in Sculpture.—R.A. Gold Medal and Edward Stott Travelling Studentship (£200), Marjorie Meggitt.

Model of a Design.—1st Landseer Prize (£30) and Silver Medal, Eleanor Iselin; 2nd Landseer Prize (£10) and Bronze Medal, Doreen Winifred Shimwell.

Two Models of Busts from the Life.—1st Prize (£5) and Silver Medal, Muriel Blanche G. Hiley, 2nd Prize, Bronze Medal, Marjorie Meggitt.

Model from the Antique.—Prize (£5) and Silver Medal, Marjorie Meggitt; *Proxime Accessit* (extra Landseer Prize, £5), Henry Eric J. Doudney.

Set of Three Models of a Figure from the Life—1st Landseer Prize (£30) and Silver Medal, Marjorie Meggitt; 2nd Landseer Prize (£20) and Bronze Medal, Henry Eric J. Doudney.

Design in Architecture.—R.A. Gold Medal and Edward Stott Travelling Studentship (£200), Richard George Bospidnick.

Set of Measured Architectural Drawings.—1st Prize (£10) and Silver Medal, Walter Edmund Troke; 2nd Prize, Bronze Medal, Arthur Leonard Hall.

An Architectural Design.—Landseer Prize (£20) and Silver Medal, Alec Norris Goddard.

An Architectural Design.—1st Prize (£10) and Silver Medal, William Frederick Howard; 2nd Prize (£5) and Bronze Medal, Aaron Writer.

Perspective Drawing in Outline (open to all Students).—Silver Medal, Sydney Walter J. Smith.

Landseer Scholarships in Painting and Sculpture, of £40 a year each, tenable for two years; in Painting, Alice H. Huckle, Diana B. L. Pullinger, and Madeleine E. Robinson; in Sculpture, Arthur J. J. Ayres.

John Crompton Scholarships in Painting, of £50 each, tenable for one year, Charles R. Beeson, Harold L. Botcherby, and Margaret I. Strutt.

The R.A. gold medal and Edward Stott travelling studentship of £200 has been worthily won by Richard George Bospidnick. His plan is cleverly disposed, and the elevational expression is agreeable and dignified in a refined type of Renaissance. The proportions and emphasis of parts are pleasing, and altogether the design, though not showing any special novelty or individuality of treatment, is a good sound piece of work. As an example of what we may call modernism, the design No. 278 has decided merit, shall we say, for almost anything but an art gallery. In the Landseer prize competition the award goes to Alec Norris Goddard for a group of almshouses, which we feel are decidedly lacking in any attractive architectural quality, the proportions being anything but pleasing. The best designs are Nos. 283, 281 and 285; in each of these designs there is evidence of real feeling for architectural design.

In the competition for an architectural design the first prize is well won by Mr. Frederick Howard for a memorial hostel, the drawings being pleasingly executed. There are some promising garage designs. Quite a large number of designs in this competition are shown, and, on the whole, are encouraging. The second prize is given to Aaron Writer for a well-detailed pavilion for a public park.

The Landseer prize for a design in water colour for the decoration of a portion of a public building must have been a difficult matter for adjudication.

The gold medal for sculpture is won by Marjorie Meggitt for a panel representing speed. This is cleverly composed and expressive of the subject. It is closely followed by a design by another student which really deserved some award, but on the whole the prize is well won.

With regard to the Turner landscape prize, it is not a little curious that the successful competitor is Mr. Teng Hiok Chiu, a Chinese student. We congratulate the winner, but one cannot refrain from pondering over the award. It would seem incredible to most people that an English landscape could be interpreted by a Chinese student in a more sympathetic manner than an English one.

It is also of interest and significant that so many women students have been successful this year, there being over 20 successful students.

Flat in Chiltern Court, Baker Street, N.W.: The Hall.

MR. CHARLES W. CLARK, A.R.I.B.A., Architect.

HERALDIC DESIGN

Mr. W. Loftus Hare delivered a lecture on the "Origin and History of Early Heraldic Design" before the Incorporated Institute of British Decorators at Painters' Hall recently. Mr. C. A. Hindley, F.R.I.B.A., president, was in the chair.

Apart from the fabulous creatures, said the lecturer, there was the zoological collection of the heraldists. The lion was not a native of Greece in historical times, but was doubtless known on the African and Asian borders of Hellas. We could account for his presence on an armorial charge by resort to mythology or history. Herakles, in one of his labours, overcame the lion of Nemea in a plucky combat, and earned the right to clothe himself in the lion's hide and to put the image of his victim on his shield. In this the Greek heroes copied him frequently, and Athena, the goddess, also bore the lion. He crouched, sprang, walked, or sat, according to his moods, on 20 or 30 of our vase paintings and became in time a favourite among the kings and knights of Europe.

The panther was carried by Patroclus on his shield, and sometimes appeared twice and sometimes four times on the shields of other warriors. The bull was often used, standing or charging. When the horse arrived in Kent on the shield of Hengist he assumed a "rampant" attitude, which was perpetuated on the breasts of Kent-built steam rollers to this day. Artemis and her devotees carried the deer, the stag, and the fawn in several styles; the ram was a favourite, and his habit of butting was perpetuated in heraldic opposition in a fine drawing by Amasis. Among the birds, the eagle had the first place, and had perched on the Imperial arms of Russia, Austria, and Germany. This bird was borne by Hector in a combat with Menelaus, and in several devices carried the serpent in his beak.

How was it that so many monsters, animals, objects, and symbols of Greek heraldic culture appeared in Western heraldry? When the Northmen went "a-viking" they not only came westward to our coasts and southward to the Mediterranean, but sailed eastward to the Baltic shores, passed up the great rivers of Poland and Russia, and founded a kingdom at Kiev. They fared farther south, traded and fought with Byzantium, harried the coasts of the Black Sea, the Aegean, and the Mediterranean, and no doubt met with many examples of Greek culture. The lion was taken by the Vikings home to Norway. He came to England with Knut the Great, who was also overlord of Norway, and was quartered on the Royal Arms, with the axe in hand. With Thorstein the Red he harried Scotland and fixed his image in red on gold ground on the Scottish flag. He stood rampant to this day on the Scottish quarter of the Royal Arms.

One of the most familiar forms in Western heraldry was the circular gold plate or boss called the "besant," the name of a Byzantine gold coin. It appeared as the ball or "pellet" on Greek shields, one to eight times. It might have been a regimental sign borne by companies of warriors; or the central ball might be the metal boss of the shield, and the others, three or four, the bosses to which the handle was attached. The interior structure of the shield was often shown with a rectangular arrangement which would require four fastenings. It was curious, however, that in copying this feature the mediæval heraldists had made it entirely decorative.

In the discussion which followed, Mr. Phelps said that it had struck him, listening to the evolution of heraldry, that that art was the projection of ideas of the changing forms of society. The thought then suggested itself: What would be the symbolic projection of our present life? What form would clothe our ideas and what colour would embellish those forms? We realised in listening to an instructive evolution of idea projected in form, that every feeling, hope and aspiration of modern people had, if they felt the creative faculty within them, to be projected in some form. The new form would express modern ideas and ideals. It was to be hoped that the future projection would be the articulation of ideals that would be produced in our form of heraldry and embellished in colour.

The President said that the study of heraldry had been put on early in the programme because it had such an excellent effect on all designing and decorative work. A designer who understood heraldry did much stronger and more definitely useful designing than a man who ignored it. We were all in the habit (not altogether a good one) of reviling whatever could be called "Victorian." Victorian design and Victorian furniture and decorating in all its phases, as we knew it, had a good deal with which a great deal of fault could be found, and it was almost always because the ornament was useless, meaningless. It was ornament used just because they could afford to do it. Wood-carvers were allowed to carve large surfaces only because they were paid 5d. an hour. They were all allowed to go as far as they liked, use ornament which had no sense or meaning whatever, and the consequence was that their work had no value to-day, and that it was only the finest examples of that time which were worth keeping. Heraldry curbed that crowding of ornament where it was not required and put meaning into what was done.

SOCIETIES AND INSTITUTIONS

THE IONIC ORDER.

Sir Banister Fletcher, P.R.I.B.A., lecturing at the Central School of Arts and Crafts on Wednesday, December 4, traced the origin of the "Ionic Order" of architecture as used by the Greeks, more especially in their colonies in Asia Minor. The order was slighter and more graceful than the sturdy Doric, and so it came about that the capital was widened by the addition of the Ionic volute above the echinus, and the base was added to the fluted columns to supply an appearance of strength. The lecturer discussed the various suggested prototypes, more or less fanciful, of the downward curving "volute" or curl. Some, he said, thought its origin might be traced to nature-forms, such as the twist of the ram's horns, or of the beautiful nautilus shell, which must have abounded on the shores of Greece; others thought it was merely a developed form of the bracket capital of primitive timber architecture; while others, again, turned to the vegetable types of Egyptian capital as the prototypes of this curved form. Amongst the many temples erected by the Greeks in this order were the two widely-different temples in Athens—that of Nikê Apteros, picturesquely perched on the Acropolis rock and dedicated to Athena in her character as patron goddess of naval enterprise; and the Erechtheion, a triple temple also on the Acropolis—a rich and beautiful example of the order. Finally the lecturer described the temple at Ephesus, erected to Artemis, better known as "Diana of the Ephesians." The site of this vast structure might still be traced, but the most striking record of this temple, with its services, its craftsmen, and its surroundings, was that dramatic description in the Acts of the Apostles, which vividly portrayed the human interest of those days during the dawn of Christianity. The order had been much used down to modern times, as at the British Museum.

SOUTH WALES INSTITUTE OF ARCHITECTS.

At the invitation of the chairman and the executive committee of the South Wales Institute of Architects (Central Branch), an enjoyable and instructive evening was spent by members on Tuesday, December 3, when a tea and discussion meeting was held at Messrs. David Morgan's Café, Cardiff. The subject arranged for the evening was "The Form of Contract and Questions Arising in Connection with the Contract Documents," and, under the chairmanship of Mr. H. Norman Edwards, an interesting discussion took place. On the motion of Mr. W. S. Purchon, seconded by Mr. C. J. Bartlett (chairman of the School of Architecture Club), a vote of thanks to the chairman was passed.

THE R.I.B.A.

At a general meeting of the Royal Institute of British Architects held on December 2, the following members were elected:—

As Hon. Fellow.

Howard De Walden and Seaford, Lord, Thomas Evelyn Scott-Ellis.

As Hon. Associate.

Stott, Sir Philip Sidney Bart, F.S.A.,

As Hon. Corresponding Member.

Wanscher, Vilhelm, M.A.

As Fellows.

Broad, M. C.
Cowderoy-Dale, F. C.
Harris, P. C.
Hooper, C. O.
Macfarlane, G. G.
Minty, R. J. H.
Mullins, G. T.
Newman, P. C.
Nicholson, F. W.
Stockdale, W.
Strickland, H. C. W.
Vernon, F. A.
Clarke, G. L.
Salmond, W.
Tanner, D. G.
Davies, C. G.
Gunson, E.
Hamilton, G. D.
Jenkins, T.
Liddle, E. F. W.

As Associates.

Ashworth, H. I.
Barker, F. (Miss)
Bartholomew, G.
Beck, R. T.
Bradley, F.
Breakwell, J.
Brown, R. S.
Buchanan, J. W.
Bunyan, J.
Collmann, L. J.
Coote, L. F. R.
Crabtree, W.
Crosby, E. L.
Cruickshank, A. J.
Culpin, C. E.
Deolaliker, G. B.
Douglas, P. H.
Dow, J. S.
Dunn, R. R. A.
Ecclestone, J. H.
Eden, W. A.
Ellis, H. G.
Finnegan, L.
Foley, H. V.
Forbes, I.
Fraser, J. M.
Garrett, A. J. W.
Gibb, J. J. R.
Golding, A.
Greenwood, F.
Hall, F. G. A.
Harding, H. J.
Hatcher, B. A.
Helm, W. R.
Holt, A. N.
Hough, G. C.
Jenkins, G. L. M.
King, W. H.
Knight, G. W.
Knowles, H. J.
Lamb, W.
Lane, H. R.
Lewin, Captain H. A.
Lightfoot, B. St. C.
Lovett, W. F. B.
Lowes, A. J. G.
Lowther, A. W. G.
Lubynski, N. F.
MacDonald, E. A. H.
MacDonald, G. S.
McLaren, I. H.
Mansfield, J. L. S.
Mant, C. G.
Metcalfe, J. G.
Metz, M. De.
Mitchell, T.
Morgan, B. J. M.
Morris, W. A.
Morrison, R. J.
Mowbray, W. B.
Napolitano, F.
Plant, W. G.
Poulton, D.
Redwood, R. S.
Saunders, G. S.
Scammell, R. Q.
Shewan, W. W. C.
Simpson, R. A. C.
Spencely, H. G. C.
Statham, C. W.
Summerson, J. N.
Sykes, C. G.
Taber, E. A.
Tamkin, A. L.
Thompson, G. L.
Tomlinson, H.
Turner, C. A. C.
Wailes, P. A.
Walkden, J. S.
Waugh, D. S. R.
Williams, G.

Following are notes from the minutes of the Council, November 4:—

First International Congress for Concrete and Reinforced Concrete, Liège, September, 1930.—Mr. H. D. Searles-Wood was appointed to represent the R.I.B.A. on the Committee which has been set up to make arrangements for this Congress.

The Fellowship.—The Council, by a unanimous vote, elected the following architects to the Fellowship under the powers defined in the Supplemental Charter of 1925:—Mr. W. J. Palmer Jones, Mr. D. A. Stewart (Perth, Scotland), Mr. L. L. Powell (Brisbane), Mr. P. A. Oakley (Melbourne), Mr. P. R. Claridge (Adelaide).

Students.—The following Probationers were elected as Students of the R.I.B.A.:—S. K. Bamber (Southend School of Arts and Crafts); E. Britton (R.W.A. School of Architecture, Bristol); R. A. Bruce (University of the Witwatersrand); J. S. Fraser (Edinburgh College of Art); D. E. E. Gibson (University of Manchester); D. S. Haddon (University of the Witwatersrand); J. A. Miller (University of Manchester); F. J. M. Ormrod (University of Liverpool); J. Patterson (Edinburgh College of Art); R. K. Pullen (A.A.); W. Scott (University of Manchester); G. Stirrup (University of Liverpool); D. S. Taylor (A.A.); G. J. Timmis (University of Liverpool).

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Chimney Dampcourses.

[REPLIES TO "EXPERIENCED," DECEMBER 6.]

SIR,—The trouble of dampness soaking down from chimney-stacks has always been a difficult one in exposed positions. Before the War, when cost was not so prohibitive, I achieved complete success in several cases where conditions were extremely bad by stepping up the brickwork to what was ultimately the line of the lead cover-flashing, and laying 4 lb. sheet lead in one piece across the whole width of the stack, and dressing it up the steps in the brickwork. The lead was pierced for the flues and was bossed up ¾ in. inside, clear of the pargetting. Plasterers' laths were built into the cross joints of the brick courses set immediately upon this sheet lead dampcourse, and were pulled out to provide weeps for any water that trickled down inside the flues and was arrested by the upturned lead rim.

The sheet lead dampcourse was made to project ½ in. from each outer face of the stack, and when the roof was covered in, and the soakers fixed, the skeleton cover-flashing had its top edges tucked into the joints immediately below the lead dampcourse, which was then turned down to overlap this cover-flashing. The steps in the flashing were made square instead of being undercut as is usual with skeleton flashing, and consequently there were no exposed pieces of brickwork below the lead dampcourse into which the rain could drive. Such a measure would not only be too expensive for general adoption at the present time, but it requires very close supervision to ensure that it is effectively carried out. There is also the rather serious objection that the lead dampcourse completely severs the continuity of the brickwork, and with tall chimneys, of no great size, might easily be the cause of their becoming dislodged. A much more simple and inexpensive method is to build the whole of the chimney-stack from well below roof level in waterproofed cement mortar, and have the flues pargetted with waterproofed cement mortar also.

A final precaution is to cover the flues at the tops so that rain does not fall down them, as it will cause damp spots on the chimney breasts opposite the ramps. There are a number of proprietary chimney-pots which completely cover the flues, and which, incidentally, are very effective safeguards against down draught. A good alternative is, however, to cover the top of the flue with a half-round ridge tile weighted down on the top by one course of bricks set in cement. The ridge tile should be broadside on to the prevailing winds.

L. E. WALKER.

SIR,—It is inevitable, with porous bricks, that the area of brickwork between the dampcourses shows damp on the exposed faces inside and out. In normal weather it is sufficiently high above ceiling level to clear itself between weathers by evaporation; but the present spell of weather is unprecedented. We have had weeks of rain, during which chimneys have become absolutely waterlogged, and the culminating storms have meant that all rain driven on to the face of the chimneys has driven off a corresponding quantity inside. This has accumulated, and ceilings have suffered. The only way to cope with this is to waterproof the surface of the chimney.

INEVITABLE.

Damp Walls.

[REPLIES TO "IN TENEBRIS," DECEMBER 6.]

SIR,—The dampness that shows upon the surface of the plastering to a party-wall which has a perfectly good dampcourse is most probably due to condensation. A hard patent plaster was used and probably trowelled to a glass-like smoothness. Most hard, close-grained materials strike cold, as, for instance, linoleum compared with a loosely woven rug. The coldness of this hard surface robs the air next to it of heat, and the air, being chilled, must get rid of the moisture it contains, which it does by depositing it in the form of condensation upon the surface that deprived it of heat.

This trouble could be overcome by stripping the hard plaster and giving a fresh skimming coat of ordinary gauged lime putty and sand setting stuff, or one could give the present surface a coat of good round paint, and throw upon it, whilst this paint was wet, fine granulated cork. If this granulated cork is sifted through a sufficiently fine sieve, a surface good enough to paper over should be obtained.

ARCHITECT.

SIR,—The job really wants seeing, but there are one or two suggestions which may point to a cause of the trouble. The finish mentioned suggests that the trouble may be one of condensation. Your correspondents might consider the possibility of this being the trouble. A thick matt wallpaper might correct it. On the other hand, there are generally chimneys in party walls, and there is no place more liable to admit the rain. Is this the probable cause? Remember that damp shows immediately on a plastered wall where it might be invisible on bare brickwork, as in the roof space. Also, it may very well work down disused flues, and appear anywhere.

ARCHITECT.

SIR,—In a large number of cases I have found that the exterior (cavity) walls dry out some six to nine months sooner than the solid party walls. The wall in the roof, not being plastered and more exposed to the air, would naturally dry out quicker than the wall lower down. Once these walls get perfectly dry they will not absorb damp in wet weather.

An examination of the walls in dry weather should show if the damp-proof course is at fault. I have found in some cases that dampcourse said to be three-ply was not effective. I would recommend a better damp-proof course than four-ply.

A. N. P.

Waterproofing Brickwork.

[REPLIES TO "W. W.," DECEMBER 6.]

SIR,—There are a good many weatherproofing solutions which can be applied to the surface of brickwork without changing its colour, and which have a really remarkable effect in repelling rain, but it would be unreasonable to expect anything that is applied with a brush or a spray to provide a permanent remedy against the continual attrition of the weather, and the makers of the best of these solutions will probably say, quite frankly, that one must not expect such treatments to remain effective beyond a few years.

Boiled linseed oil has a good effect, but is apt to leave the surface of the brickwork shiny, and the best results, so far as they go, are probably obtained by an emulsion of mineral wax in a light-bodied oil. If a permanent remedy is sought, the interior plastering of the wall might be stripped and replaced with waterproofed cement mortar in two coats, finished with an absorptive skimming coat that would prevent condensation.

ARCHITECT.

SIR,—Waterglass, applied in a number of thorough coats, is as effective a treatment as any; but there are a number of proprietary materials on the market equally effective. Any local building materials' merchant would be able to supply your correspondent.

STORM PROOF.

Venetian Window.

SIR,—I am somewhat doubtful as to what is meant by the above term, as generally used in the building trade. Can any of your readers explain?

SUPERVISION.

Profit Basis.

[REPLY TO "A BUILDER," DECEMBER 6.]

SIR,—Fifteen per cent. is a reasonable proportion for profit and establishment charges, but it is doubtful whether this should not include wear and tear of plant and brushes. It depends very largely upon the total turnover.

FAIR BASIS.

Hollow Breeze-block Walls.

[REPLY TO "J. P.," DECEMBER 6.]

SIR,—A thorough admixture of a good waterproofing material with the cement should make an impervious wall, but no solid material in which there is direct contact between the inside and out can be relied upon to resist driving rain, particularly of the persistence of that we are now experiencing. Breeze blocks of good quality are of equal weather-resisting qualities to the average stock brick.

LIMITS.

Mahogany Substitute.

SIR,—I should be glad to know what is the most suitable wood to use for staining and polishing as mahogany. The possibility of Columbian pine suggests itself.

INQUIRER.

Skirting Shrinkages.

SIR,—Is it not possible to do something to avoid the gaps which occur under skirtings after the latter have shrunk? Would it not be possible to groove such members into the flooring so that shrinkage would not matter?

LAYMAN.

Picture Rails.

SIR,—A picture rail does not always fit in to all schemes of decoration, as when walls are panelled from floor to ceiling. Are there any unobtrusive forms of picture hooks which can be fixed and removed without damage to plaster or decorations, for use on such occasions?

HOUSEHOLDER.

Cost of Modern Office Work.

SIR,—I should be much obliged if you would supply me with information as to the approximate cost per cubic ft. of the erection of a building as under:—Site: 100 ft. by 45 ft., and regular, and open on adjacent two sides; good central London soil. The proposed building is to be eight stories high (no basement), and to consist of modern office accommodation, with lift and general services usually required, together with central heating. A steel-framed building will be required, and no extravagant ornamentations or fittings are desired; whilst the elevation should be of best quality artificial stone in a good plain style.

READER.

Cement-spraying Machines.

SIR,—We have on many occasions received valuable advice and information from correspondents, and are wondering whether any friends would kindly give us information and experience as regards spraying machines suitable for rendering the exterior of buildings with cement and other similar compositions. Information concerning such waterproofing material would be of great assistance to us.

COMBEN & WAKELING, LTD.

An Architect's Estate.

Mr. William Whitehead, A.R.I.B.A. (43), of Moor Park-drive, Headingley, Leeds, director of Alfred Whitehead, Ltd., of Prudential-buildings (net personalty, £2,830), left £4,890.

THE WEEK IN PARLIAMENT

Westminster, Wednesday.

Houses Built.

Mr. Greenwood informed Mr. Day that the total number of houses built in England and Wales with State assistance, during the twelve months ended September 30, 1929, was 132,144, and the number of houses having a rateable value not exceeding £78 (£105 in the Metropolitan Police District) erected without State assistance during the same period was 71,083, making a total of 203,227.

Subsidies.

In reply to Viscount Wolmer, Mr. Greenwood stated that the total amount paid in housing Exchequer subsidies since 1918 was £80,874,771.

Rural Housing.

Mr. Greenwood informed Lord Elmley that the position as regards rural housing was engaging his attention in connection with the legislation he had under consideration.

Gas Boilers.

Sir Alfred Butt asked the Minister of Health whether he would communicate with all the local authorities and urge upon them the desirability of passing by-laws insisting upon proper external ventilation being provided in every case where gas boilers or geysers were fitted, in order to minimise the danger of poisoning to the public from this source.

Mr. Greenwood said that a committee appointed by the President of the Board of Trade was considering what measures might be taken with a view to diminishing the number of deaths from such accidents, and when the committee had reported he would consider the question of communicating with local authorities

Empire Materials.

Sir K. Wood asked the Minister of Health whether he had received a copy of the resolution recently passed by the London County Council that in the construction of dwellings preference would be given wherever practicable to materials wholly or in part obtained from sources within the British Empire; and whether he would in his next communication to local authorities advise the adoption by them of a similar policy and course of action.

Mr. Greenwood said he understood that a resolution on the lines suggested in the question had recently been passed by the London County Council, but he had not received a copy of it. Section 10 of the Housing (Financial Provisions) Act, 1924, provided that, in approving proposals for the construction of houses, the Minister of Health should not impose any conditions which would prevent the materials required from being purchased in the cheapest market at home or abroad. Local authorities had, however, been urged to arrange that all contracts for or incidental to works carried out by them should, in the absence of special circumstances, be placed in this country, and that where this was for some reason impracticable British Empire products should, if possible, be used. The issue of a further communication to local authorities was under consideration.

Damage by Heavy Vehicles.

Captain Wallace asked the Minister of Transport if he was aware of the inconvenience caused to certain inhabitants of Highgate owing to the diversion of traffic from Archway-road to roads not constructed to bear heavy vehicles, and the resultant risk of serious damage to the roads and the houses therein, and, if so, what steps were being taken to deal with the situation.

Mr. Morrison said this matter had been closely investigated by his Department and the Commissioner of Police, and he was satisfied that in the circumstances this diversion was unavoidable. All practical steps, however, had been, and would continue to be, taken to avoid damage and inconvenience by controlling the traffic. Omnibus drivers had also been instructed to proceed slowly, and an inspector was detailed to enforce compliance. The highway authority had made special arrangements to repair any damage to the roads which might occur

Battersea Power Station.

Sir Samuel Hoare asked the Minister of Transport if he could assure the House that the London Power Company would not be authorised to proceed with the full scheme of the Battersea power station until the Government chemists had made their further Report, and unless this Report made it clear that the danger of sulphur fumes had been eliminated.

Mr. Morrison replied that the full scheme would not be sanctioned until the Committee presided over by the Government chemist had made their further report, and it was clear that adequate measures could, and would, be taken to avoid the dangers which might arise from sulphur fumes.

Cockington Forge.

Captain Cazalet asked the Prime Minister whether his attention had been called to the fact that the famous Cockington Forge, Torquay, might shortly be purchased for exportation to America; and whether he was prepared to take steps for the purpose of retaining it in this country.

Mr. Lansbury, who replied, said that much as he would regret the disappearance of this well-known forge, he feared that it was not a case in which he would feel called upon to intervene under the Ancient Monuments Act.

Mr. Lansbury, answering further inquiries, said that a small committee was investigating the matter with a view to reporting to the Prime Minister.

Glasgow Housing.

Mr. Adamson, Secretary for Scotland, informed Mr. Train that the number of subsidised houses built in Glasgow during the last ten years was 24,746. The Corporation of Glasgow had granted advances under the Small Dwellings Acquisition (Scotland) Acts amounting to £355,875 in respect of the construction and purchase of 665 houses.

Foreign Bricks.

Commander Southby asked the President of the Board of Trade, whether, in view of the fact that the importation of cheap foreign bricks was adversely affecting the brick-making industry in this country, he would consider the desirability of a tax on foreign bricks, or, alternatively, the introduction of regulations which would make it obligatory for all foreign bricks to be marked with the name of the country of origin, in order to safeguard the interests of British brickmakers and enable the people of this country to know when they were not getting British bricks.

Mr. Graham said that the answer to the first part of the question was in the negative. With regard to the second part, the Standing Committee under the Merchandise Marks Act, 1926, had already under consideration an application for an Order in Council under the Act to require imported bricks to bear an indication of origin.

Price of Houses.

Sir J. Birchall asked the Minister of Health whether he was aware that since July the cost of building houses had been steadily rising; and, if so, to what causes he attributed the rise.

Miss Susan Lawrence said the answer was in the negative. The average price of houses had varied very little in recent months. It happened that in the last three months the average size of non-parlour houses showed some increase on the average area in July; the average cost per square foot had, in fact, declined since July. In the case of parlour houses, the average cost in July was abnormally low, in consequence of an unusually favourable tender having been obtained for a large proportion of the houses included in the contracts made during the month The figures for subsequent months more nearly represented the recent normal cost of houses of this type, taking into account the variations in the size of such houses, and the localities in which they were built.

National Galleries.

Mr. Mander asked the Prime Minister whether the Government was prepared to accept the proposals of the Royal Commission on National Museums and Galleries.

Mr. MacDonald said that the proposals made in the recent report of the Commission affected a number of institutions. The trustees or other governing bodies of the institutions were considering the proposals and the Government must await their recommendations and receive an estimate of the total cost involved before arriving at definite conclusions on the report generally.

BOOK REVIEW

The Honeywood File: An Adventure in Building. By H. B. Creswell, F.R.I.B.A. (London: 9, Queen Anne's-gate, Westminster, S.W.) Price 7s. 6d.

"The Honeywood File" is a young architect's record of correspondence in connection with the design and erection of a country mansion, "'Honeywood Grange,' Marlford, Kent." It sets forth the hundred-and-one difficulties, trials, tribulations and modified raptures of the young architect in practice. There are troubles with the client and his wife, with the tenders, with the local surveyor, with the builder, with the adjoining owner, with the materials, with the site, with almost everything and everybody; and through it all we see the architect, one James Spinlove, a conscientious and competent, though occasionally impetuous, young A.R.I.B.A., doing his best to get the work finished to everybody's satisfaction.

The various other characters involved come out with extraordinary clearness in the correspondence—the client himself, Sir Leslie Brash, a pompous and prosperous business man with social ambitions who, besides splitting all his infinitives, never uses one word where three will serve, or words of one syllable when he can drag in long ones; the client's wife, Lady Brash, nervously incoherent; the builder, Grigblay, a sterling fellow who, besides knowing his job and doing it well, keeps a friendly eye on the young architect; Tinge, the businesslike quantity surveyor; Potch, the local surveyor, a jealous and mean-minded man, who endeavours to "crab" the job at every opportunity; Wychete, P.R.I.B.A., who, rather unusually, as we think, is ready to answer various questions on practical building problems by return of post; and the client's daughter, a cheery young thing who signs herself "Pud," and between whom and Spinlove there are signs of an incipient romance, though it never develops. (Why, may we ask, should this young lady's flippant notes be preserved on Spinlove's office file? And why does Spinlove never answer them? Perhaps he did, but his letters were of too intimate a nature to be copied and preserved.)

In the end, after countless difficulties have been surmounted, the house is completed satisfactorily, and the file closes. The letters, together with the author's comments upon them, make entertaining and instructive reading, and give a remarkable insight into the difficulties which are likely to be met in house-building. The book should appeal to the architect and the layman alike: and from the point of view of the latter, a short glossary of technical terms would have been an advantage.

THE BUILDING TRADE

RECURRING DEFECTS: THEIR CAUSE, PREVENTION AND CURE.—XXIV

By J. R. TAYLOR.

DOMESTIC HOT WATER SUPPLIES.

NOTHING has given me so much pleasure during the course of these articles as the realisation that they are widely read and that the profession is awake. It matters far more that architects should be thinking about the subjects treated than that I should be right on any contentious point, and I welcome with interest any thoughtful criticism advanced. With some forty years of experience behind me, I find that the most striking fact that emerges is that nothing has taught me so much as my mistakes. Always a fairly close student of the text-book, I have endeavoured to apply the theories to my daily work and to reason out any divergence of opinion with an underlying conviction that the other fellow is entitled to his point of view, and that it is to be treated with respect if backed by a record of good work. Thus any apparent dogmatism on my part is not so much that of the pedagogue as an emphatic warning to others not to fall into mistakes I have made myself.

There are many text-books on the subject of domestic hot and cold water supplies, so ably written as to make the study of them a pleasure rather than a drudgery. My own articles were not so much concerned (except as regards better protection against frost) with any new methods as with the direction of the young architect's attention to the desirability of his studying the subject for himself.

On the other hand, the architect has such a vast subject that he is really to be congratulated if he can successfully combine anything like a practical knowledge in all trades with the severe calls made upon him by the design. This must constitute my apology, if such is needed, for recapitulating some of the more elementary facts in this and the following article.

CONVECTION.—To understand the working principle of any hot water apparatus, it is necessary that the movements of hot water or circulation should be described, and here a little imagination is our best help. We will imagine that we are possessed of eyes of a similar capacity to those described by Sam Weller in Bardell *v* Pickwick, and thus endowed we shall see the particles or molecules composing the volume of water in the form of tiny globes, each so light and mobile that at least one eminent scientist goes so far as to say that they are capable of moving over, under, and around one another without friction, and that they are even repellent to one another, so that they do not rub. But be this as it may, they are so extremely mobile that but very little heat is required to set the expanded particles moving upwards, to be immediately replaced by colder particles, which, after moving down, are themselves expanded and move higher. With the aid of glass models, which need not be described here (but which the reader may easily construct for himself, guided by the text-books), we should see that not only are the heated molecules eager to rise, but the colder ones from the upper strata appear to be just as eager to fall. I am writing as though they had will power, so that a clear mental picture may be formed. This constitutes the circulatory movement which, constrained to follow a path mapped out, carries them forward in a never-ending circle until release is granted at a tap or the driving force is removed. Even if the fire is withdrawn, the circulation will continue for a very long time, because of the eagerness of the colder members to get back to the lowest point. The movement starts at once, and is continuous for so long as a balance is maintained between the amount of heat applied, the amount of water to be dealt with and the losses by radiation. With too little water in proportion to the fire, steam would be formed and the effective heat thus be wasted, *but in nine cases out of ten where a domestic hot-water system does not give satisfactory results, it is because the capacity of the boiler is over-rated, and too large a margin of water is provided by reason of an oversized cylinder.*

THE BOILER UNIONS.—It is commonly thought that these unions are placed one at the top and one nearer the bottom of the boiler to ensure that circulation shall take place. This is not so. With both unions flush with the top circulation would still immediately set in on the application of heat and would continue. But it would be uncertain up which union the water would choose, as it were, to move. In the model it can be made to go up either by moving the flame from one side of the boiler to the other. We therefore place the unions at different levels to constrain the circulation to travel in only one direction, and enter the cylinder at a selected point.

THE CYLINDER UNIONS.—I will deal first with those unions to the cylinder, the position of which may be said to be non-contentious. The primary return is placed at or near the bottom in order that the whole contents of the cylinder may flow through the boiler, and, as I shall presently show, this has some bearing on the position selected for some of the others. The secondary flow is placed at or near the top in order that the hottest water in the cylinder shall be immediately available at the taps. Now it is customary to say that water is a poor conductor; that hot water will float for some time on the top of cold water; and that the primary flow must take its supply from this point on account of these facts Generally this is rather loosely expressed, and the reader may get a hazy sort of idea that the boiler takes in, say, a gallon of cold water, heats it through a given number of degrees, and then delivers it at the top of the cylinder, where it floats ready for use while the boiler is dealing with the next gallon. Nothing of the sort happens; the flow from the boiler to the cylinder is continuous once it is started, and its first deliveries are at a comparatively low temperature. It makes no deliveries at a higher temperature until the whole contents of the cylinder have been once through the boiler, and it is only after repeated passages that the water becomes really hot. I am, of course, referring to normal connections, but this process may be varied by placing a branch to the primary return half-way up the cylinder, and by means of a stop-cock, throwing the lower half temporarily out of action. This introduces an unnecessary complication best avoided in small systems dependent on a range boiler. In a hotel or other large establishment a series of regulating valves either automatically or humanly controlled may be not only desirable but necessary, but in ordinary domestic use it is of primary importance that the system shall be as simple and foolproof as possible.

CYLINDER CAPACITY.—Before turning to the unions, the position of which may be described as contentious, it is worth while to consider the question of cylinder capacity. This, to be of the greatest efficiency must be in strict accordance with the boiler capacity. Here, with the average range boiler, we are at once in trouble, because we have no means of insuring that the capacity will remain constant as used in the average small house. We can only hope that it will receive intelligent treatment, that its flue will be kept clean, that the damper will be opened to its widest in the morning and the fire be lit well in advance of demands on the hot water. It is even more important, perhaps, that the damper should be closed after the demands for hot water have been met and an exceptionally brisk fire has been made up for cooking. But assuming that all this is correctly attended to we are by no means at the end of our difficulties, because the demands on the capacity are not constant. They will vary on different days very widely, as, for instance, when there are guests or, on the other hand, when some of the family are absent. We must, however, make a choice between evils, and therefore decide amongst other things whether the cylinder shall deliver hot water in small quantity or warm water in larger quantity for the early morning requirements of the house. Unfortunately, whichever we decide on it will be a departure from the ideal.

In Article XIII (*The Builder*, September 27), referring to range boilers, I wrote:—"It is a very exceptional boiler that will heat 30 gallons of water through 70 degrees within an hour and a half of the fire being lit. The average arched-type supplied with the usual kitchen range suitable for a small house will only deal with about 20 gallons in the first hour and a half and about 20 gallons per hour thereafter." Although some makers claim rather better performances for their boilers, the above figures provide a more reliable index, and even they are a little optimistic as compared with the results obtained under average usage.

All this has an important bearing on the size of the cylinder connected to this type of boiler. It is necessary to guard against making it either too large or too small. Bearing in mind that all the content must pass through the boiler before any is delivered at a useful heat, too large a capacity means delay; if too small, the risk is run of loss by the water reaching boiling point in the mid-day hours, when the fire is brisk and the demand is small. If this is ignored, alarming noises are set up as the water escapes in the form of steam emulsion. Based on the above figures, it will take about 2¾ hours to raise 25 gallons of water from 50 degrees to boiling point if there are no radiation losses. These losses are, however, considerable, especially when the cylinder is not covered with insulating material. In practice, a cylinder of this size is, therefore, about right for this boiler.

PRIMARY FLOW CONNECTION.—There is one point to consider before finally deciding where to connect the primary flow. If it is very high up we have seen that we run the risk of one user, whose demand for hot water coincides with delivery of water at a useful degree of heat, using up all that is available. In this way it may happen that it is drawn off at the scullery sink quickly to melt the grease from dirty dishes while the more important function of providing a bath supply remains in abeyance. If we connect it very low down we shall be told that it will mingle with the cold water and be lost. This is quite wrong. The acquired heat cannot be lost except by radiation. All that can happen is that it will be diffused in the general bulk, and many who realise how small and inadequate this is would view it with complacency. With this type of boiler we cannot increase the heat, and as the whole of it will undoubtedly be wanted within a comparatively short time of the fire being lighted all fittings will get some, but none a preferential share, by this method. We are thus driven to the conclusion that whether

we connect high up, low down, or midway (and all are practised in conformity with local customs), we may defend our choice if we are able to state our reasons for it. But with a better boiler we may, by a multiplication of secondary flow and return unions, exercise a great degree of selectivity, as I propose to show next week, after having dealt with the other unions on the system immediately under examination.

***The following correspondence arising out of Mr. Taylor's articles has been received :—

Hot-Water Service.

SIR,—Mr. Taylor's chief stumbling block appears to be that he has tried to design a hot-water service to suit the connections on a cylinder which he can buy from a hardwareman's stock. A hardwareman cannot be expected to know right from wrong, and stocks what he has the greatest demand for. What Mr. Taylor describes as the 4-union cylinder with both primary connections and secondary return near the bottom of a vertical cylinder was probably considered correct, say, 30 years ago, and the hardwareman apparently still goes on making it.

I do not think it necessary to go into all the elementary points in your excellent Journal, but, perhaps, I may answer Mr Taylor's questions by asking one or two of my own. He refers to the position of the primary flow which the hardwareman likes to place near the bottom. Mr. Taylor "compromises" by placing it near the centre. May I ask him where he prefers hot water first—at the bottom or middle of the cylinder or at the tap? Why—first thing in the morning—does he want to convey nicely heated water through a body of cold or cool water to reach the tap?

My second question deals with the secondary return shown near the bottom of the cylinder. I ask Mr. Taylor if he can definitely decide which way water will travel to an opened tap. If not, why does he risk drawing cold water from the bottom of the cylinder?

I might, perhaps, refer to one "fallacy" which may have escaped his notice. Not only will the air pipe (as shown in his sketch) refrain from doing its duty but it receives the hottest water, and by radiating heat the water in it will circulate and when cooling will drop back into the top of the cylinder. I may be straining at a gnat, but I see that Mr. Taylor agrees the position is a wrong one.

S. WHITMORE ROBINSON.

Mr. Taylor replies as follows :—

SIR,—I note with some regret Mr. Robinson's return to the attack, as I had thought that he at least would be one to welcome an attempt to overcome frost difficulties in a manner sufficiently inexpensive to permit the architect to adopt it when designing small houses that must be low enough in cost to compete successfully with the speculative builder. His first paragraph would better be answered by the makers of cylinders, who, though dismissed by Mr. Robinson as "hardwaremen" who "cannot be expected to know right from wrong," are in many instances competent engineers. Where economy governs and the job is small, such cylinders are deservedly popular with practical men.

His second paragraph states that he will answer my questions by asking others. I fail to find any note of interrogation in either of the articles (*The Builder*, September 27 and November 6). I will, however, try to answer his. To the first my answer is : Either at the bottom middle or top according to the volume of water required from the cylinder in the early hours, for reasons already stated. I do not understand by what magic Mr. Robinson would draw it from a TAP without it entering the cylinder on a cylinder system. To the second : Yes, unless the circumstances are unusual. When the pipe runs are so beset by difficulties as to give rise to the risk he foreshadows, modification might be necessary, but the exception would prove the rule.

As to Mr. Robinson's final paragraph, I am happily in agreement with him when he fears that he may be "straining at a gnat." Wherever the air pipe is fixed it would attain the highest point on the system, would contain the hottest water, would release heat by radiation, and thus set up circulation, and the contents would return to the cylinder. In the sketch it affords protection to the rising main in very severe frost.

Storm Damage.

SIR,—In an article dealing with this matter (*The Builder*, November 15) I wrote : "Short of the complete overturn of the roof, probably nothing does more damage or causes more alarm than overturned chimney stalks and pots. Not one case out of twenty finds its way into the daily Press, because unless the stalk falls through a roof while the occupants are in bed and they are either killed or badly injured, the story is so common as to have no news interest."

The following is summarised from the *Times*, December 9 : "A resident of Nightingale-road, Southsea, was killed in bed early on Saturday morning by a chimney falling through the roof. A resident of Albert-road, Southampton, was killed by a chimney stack which crashed through the roof of a house and fell on to his bed. A big gable chimney dislodged by the gale crashed through four floors of the Jersey dining-rooms at Weymouth. A chimney crashed through the roof on to a bed in which persons were sleeping. A doctor's house at Bath was badly damaged when a chimney stack crashed through the skylight into the hall. The chimney stack of a house at Plymouth fell through the adjoining house from top to bottom. At Seaton, Devon, roofs were stripped and chimneys were blown down. A chimney stack fell and crashed through the roof into a room just vacated."

I suggest this is a matter for the architects' earnest attention. The prolonged rains have also fully demonstrated the total inadequacy of 11 in. cavity walls in exposed situations, particularly to south and south-west elevations, even where the work has been carefully carried out under constant supervision. The 11 in. solid work where the cavities are closed against openings becomes completely saturated under prolonged rainy conditions.

J. R. TAYLOR.

BUILDERS' FOREMEN & CLERKS OF WORKS

THE annual dinner of the London Association of Builders' Foremen and Clerks of Works was held at the Hotel Cecil on Saturday, December 7, under the chairmanship of Mr. Oliver J. S. Piper, O.B.E., the gathering numbering about 400 After the loyal toasts had been honoured,

The Chairman, proposing the toast of "The Association," coupled with the name of its President (Mr. G. W. Holt), said the Association was started 35 years ago by a few enthusiasts of the London County Council Works Department, and had established itself as a permanent organisation. It showed a keen perception on the part of the early members, who in 1913 changed not only the title but the functions of the Association from the Builders' Foremen Association to the Association of Builders' Foremen and Clerks of Works. The line of demarcation in the knowledge and ability required as between a builder's foreman and a clerk of works was so faint as to be hardly recognisable. The Association, at its meeting in 1904, decided to establish a Pension Fund, and to that had been added from time to time other benefits, such as unemployment, distress and death benefits. At the present time the Association had ten aged members and sixteen widows enjoying pensions, at an annual cost of £600. This, out of a membership of 350, was a record to be proud of. He was happy to say that donations had come in fairly satisfactorily, and he thought there was a possibility this year of establishing a record in response to the annual appeal for funds.

Mr. G. W. Holt, responding, said he hoped there would be no mistake about the objects of the Association, and that the members would respond to the utmost to the appeal made by the Chairman. When he joined the Association it had no pension fund, and what had been done since in that direction had been accomplished by hard work. He was glad to say that the Association was making good progress in the desire to render assistance to those of their members who were unable to help themselves.

Mr. J. T. Cummings (Vice-President of the Association), proposing the toast of "The Architects, Surveyors, Builders, and other Visitors," said they were favoured with the presence of many gentlemen of eminence and ability—architects, surveyors, engineers, builders and contractors, and representatives of firms whose names were not only well-known in London, but throughout Great Britain and in other parts of the world. Such gatherings as that, where the leaders of the various branches of the building industry met together for a social evening, must make for the common good. He desired to appeal to those who were in a position to do so to give some thought to the question of provision being made for the lads entering the craft sections, so that they might obtain an insight into the elementary principles of their work, by the inclusion in the school curriculum in the last years of their school days such subjects as would prove useful in their work and to their advancement in the service of the community.

Alderman Ewart G. Culpin (Chairman, London and Home Counties Branch, Incorporated Association of Architects and Surveyors), responding on behalf of the guests, said they were pleased to hear that the Association existed not only that they might conserve but preserve their own interests, because that was fundamentally the aim of all associations, whether professional bodies or otherwise. Not only did the Association exist for that purpose, but it had at heart the relief of distress of those of their members who had fallen upon bad times. The great object they all had at heart was to see that those who had borne the heat and burden of the day did not find themselves at the close in need without the help of their fellows. He was also glad to note that not only did they do this, but they looked after the widows and dependants as well.

Dealing with the province of builders' foremen and clerks of works, the speaker said that architects all knew that it would not be possible to translate their dreams on paper into those erections which were at the present moment beautifying and ennobling London without the cordial co-operation and help of those who translated their instructions and interpreted their plans into bricks and mortar. There was no body of men more loyal, he felt sure, in the work which they carried out, no more thorough in their duties and conscientious in the discharge of the work placed in their hands, than the clerks of works and builders' foremen. They were, indeed, the sheet-anchor both of the architectural and surveying professions, as well as the building industry itself.

The concluding toast, that of "The Chairman," was proposed appropriately by Mr. G. W. Holt, and the Chairman suitably responded.

Canadian Building Materials.

We are informed by the Canadian Ministry of Trade and Commerce that cement production in Canada during 1928 established a new high record at 11,023,928 barrels, valued at £3,487,000. 34,047 barrels of cement were imported. Lime production was in the same happy position; 508,889 tons, valued at £943,190, were manufactured, imports amounting to 5,417 tons.

LONDON MASTER BUILDERS' ASSOCIATION

The annual dinner of the London Master Builders' Association was held on December 5, at the Connaught Rooms, W.C.2, the President, Mr. G. H. Parker, F.I.O.B., occupying the chair. Supporting him were Lord Burnham, Lord Amulree, Mr. Wm. J. Stewart, M.P., F.I.O.B., and Mr. E. Stanley Hall, F.R.I.B.A., and amongst those present were Sir Giles Gilbert Scott, Dr. Oscar Faber, Sir Walter Lawrence, Lt.-Col. J. Mitchell Moncrieff, Major R. I. Tasker, Messrs. A. H. Adamson, R. Angell, C. H. Bedells, C. J. Bennett, T. P. Bennett, R. S. Bowers, Darcy Braddell, E. J. Brown, G. W. Buchanan, J. Buckland, G. M. Burt, Ben Carter, F. G. M. Chancellor, Maurice Chesterton, E. Stone Collins, A. B. H. Colls, Alfred Cox, E. G. Culpin, T. S. Darbyshire, Arthur Davis, Humphry Deane, A. Dryland, C. E. Elcock, E. Elgood, W. T. Faldo, A. B. Falkner, G. Topham Forrest, F. J. Gayer, George Gee, C. Lovett Gill, E. B. Glanfield, Alex. Grant, J. F. Greenwood, A. Grunspan, L. Rome Guthrie, Alner Hall, H. Austen Hall, Wm. Hall, W. J. P. Halls, Stanley Hamp, A. W. Haskins, L. J. Haskins, George Hicks, R. J. Holliday, J. R. Leathart, Cecil Masey, F. M. May, J. Murrey, G. P. Nash, D. B. Niven, D. Palmer-Jones, George Parker, W. T. Plume, E. Pollard, A. D. S. Rice, R. L. Roberts, H. D. Searles-Wood, T. S. Tait, S. J. Tatchell, J. M. Theobald, W. E. Trent, C. C. Trollope, Douglas Wallis, T. Wallis, G. W. N. Ward, Septimus Warwick, Maurice Webb, H. A. Welch, A. G. White, F. J. Wills, Frank Woodward, and the Secretary, W. J. Rudderham.

The loyal toasts having duly been drunk,

Lord Burnham submitted the toast of the evening, "The Association." He said that he was glad to find the building trades, in London at least, basking in the sunshine of permanent prosperity. If the trades of the country as a whole were in the same position there would not be much to complain of. Of the unemployed, however, there were many who had grown weary before their time or whose technical training did not extend to the higher branches of their profession. He had recently returned from India, and when there he had felt that England had much to be proud of and much reason for satisfaction. The great historic buildings there (the finest of their style in the world) would have hardly been in existence but for Lord Curzon. The people of India used to talk of their Viceroys as Lord Protectors, but Lord Curzon was a Lord Preserver, because there was no part of India where signs of his work could not be found. The greatest result had been New Delhi—not yet complete, but arrived at the point of use and habitation. There were two great architects on the job, Sir Edwin Lutyens and Sir Herbert Baker, and they had brought about a great achievement. Sir Edwin had said that at one time he had 30,000 men on the work. In the first years there was much criticism of the scheme on the part of the English papers. On one occasion Sir Edwin was criticised in the Press for not putting pointed arches to the windows. The India Office took it up and cabled Sir Edwin for an explanation. The reply came quickly: "God did not see fit to point the rainbow: why should I the windows?"

Returning to the building trade, the speaker said that he had been told that there were at least twenty-five cinemas being erected in the Metropolitan area. The House of Lords had just passed a Bill for accelerating and increasing widows' pensions by reducing the qualifying age to 55. That would mean a good deal of money flowing from the Exchequer to the picture-houses. The reaction from that state of things would be the builders' opportunity for the building of more cinemas for those enriched widows.

The President, in the course of his reply, said that Lord Burnham had referred to the permanent prosperity of the building trade. He believed that if his lordship could have access to some of the more intimate relationships of the industry he might alter his opinion. The building industry had its difficulties, as it always had, of one kind or another. As a small child he could remember hearing that the industry was in a deplorable condition. Some of the difficulties had been handed down to them; some they had brought upon themselves; and others had been thrust upon them. They would surmount those difficulties if they kept together. He believed that the relationship between both employers and operatives had never been on a sounder foundation than they were to-day. He believed that both parties were desirous of interpreting their agreements in a straightforward manner and of doing the right thing to any party considering itself aggrieved. The constitution and agreements of the industry were now in such a state that in no circumstances whatever could he, the speaker, perceive that the old and barbaric methods of strike and lock-out would ever disgrace the industry again.

Dealing with employment, the President said that the industry in London had absorbed many thousands of skilled men, but wanted more. The only way to get skilled men was through apprenticeship. He felt that no man could ever become a craftsman in a few months, and it was up to everyone in the building trade to do their bit in the direction of encouraging the system of apprenticeship. They would have to make what might be called the "unattractive" trades (plastering, bricklaying, joinery) popular. In conclusion, he would like to pay tribute to the staff of the Association, who, led by Mr. E. J. Brown, had rendered such sterling service.

Mr. Ernest Brown proposed, in the course of an "unofficial" speech, the good health of Mr. George Parker, Senr., father of the President. This was heartily toasted, and Mr. Parker replied.

Mr. Wm. J. Stewart then gave the toast of "The Guests." He said that no member of any employers' body had had more pleasant relations with the employees' representatives, whose leaders, Mr Murrey and Mr. George Hicks, he was glad to see there that night. Building might be good with the L.M.B.A., but in the provinces was not so flourishing. Each trade knew its difficulties, and he felt that employers and employees should be called together and arrive at some conclusion. At present no attention was paid to those who really knew the faults. In the building industry there were great troubles and great distress, matters that were pressing and should get immediate attention.

Lord Amulree replied. The building industry had been of especial interest to him, and, after 15 years' connection with it, he knew that the important part of the question was not the letter of agreement, but the spirit. Unless both operatives and employers realised that, there could be no true conciliation. He had been warned not to mention the New Contract. He would say that, apart from the contract, it was necessary to revise the conditions of the building trade, which was at the same point in administration as in 1907. It was quite time that the architect, surveyor, employer, operative and building owner put their heads together to endeavour to revise the whole question, revise costs, and put the whole industry in a better condition financially. Any industry had to-day to adopt, if not nationalisation, then the spirit of nationalisation, and the building industry was no exception. A council had been sitting for the last few months to improve general conditions. He would like to see the standard of building materials raised and some cohesive attempt at unification. The industry was a peculiar one, and could best be understood by one who had grown up in the intricacies of the whole affair.

Mr. E. Stanley Hall also replied. He was glad to hear of the fraternal relationship between employer and employee. He would like to see that relationship extended further to include (in alphabetical order): the architect, builder, clerk of works, foreman, joiner, and quantity surveyor. Building success depended on team work, and he was glad to say that, personally, he had only on three occasions failed to get that support—and on those occasions the London Master Builders were not concerned.

WOOD PRESERVATION

A meeting was held on Tuesday, December 3, at the Hotel Metropole, Northumberland-avenue, W.C.2, to inaugurate a "Wood Preserving Association." Amongst the large gathering present were: Mr. Leslie Wood, F.S.I. (chairman); Lord Clinton, Sir Harold Boulton, Sir James Calder, Colonel Sir G. Courthope, Bart, M.P., Messrs. Hugh Ferguson, C. Ward, C. le Maistre, C.B., — Bryan, C. B. Cabriel, and J. C. Brown. In moving the formation of the Association the Chairman outlined the principal objects, which were: to spread knowledge of wood preservation with a view to prevention of wastage of timber; to investigate all possible methods of wood preservation and to standardise specifications for wood preservatives and their application; and to afford members opportunities for the interchange of ideas regarding improvements in wood preservation, and for the discussion of all matters bearing thereon.

Sir Harold Boulton, of Messrs. Burt, Boulton & Haywood, Ltd., said that an association of this kind should be regarded as a public and national movement.

Lord Clinton then proposed "The Formation of the Wood Preserving Association." This was seconded by Mr. Hugh Ferguson. Mr. C. Ward, of H.M. Post Office, referred to the interest of H.M. Post Office in the preservation of wood. Messrs. J. C. Brown, C. le Maistre, C. B. Cabriel, and — Bryan spoke on behalf of the Railways, British Engineering Standards Association, Timber Trade Federation, and the Forest Products Research Laboratory respectively. A committee is now being formed, and any further information can be obtained on application to Sir Harold Boulton, Association of Tar Distillers, 166, Piccadilly, W.1.

Employment in the Building Trade for October.

There was a further seasonal increase in the numbers of workers unemployed during October, says the *Ministry of Labour Gazette*. Employment was moderate to fair, on the whole, with unskilled operatives, and moderate to slack, in most districts, with unskilled workers. It was reported as slack or poor in a number of districts, including Blackburn, Cardiff, Keighley and Rochdale; on the other hand, it was reported as good at a few centres, including Coventry, Harrogate, Ipswich, West Middlesex and North-West Surrey. As compared with October, 1928, employment showed little change, on the whole. As regards individual occupations, employment declined with bricklayers, masons, carpenters and plumbers; it varied somewhat as between different centres with these classes, but was moderate to fair in most districts. It declined considerably with plasterers, and was generally moderate. Employment remained slack with slaters, and there was a further decline with painters. It was moderate to slack, on the whole, with tradesmen's labourers. As compared with October, 1928, increased employment was shown with masons and with painters, and decreased employment with bricklayers and slaters; there was little change with the remaining classes.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *office not later than Tuesday evening.*

Acton.—FLATS.—Major W. G. Cross, Borough Engineer, has prepared plans for the erection of 28 flats at Brassie-avenue and The Approach on the East Acton housing estate, W.3. Tenders are now being invited.

Becontree.—CHURCH.—The L.C.C. has recommended that the site on the Barking (No. 13) section of Becontree, with frontages to Wood-lane and Gale-street, be sold for £1,200 to the Church of England authorities for the erection of a church.

Bow Road.—PREMISES.—On the site of 169-171, Mr. R. Mansell, builder, of 17, Grant-road, Croydon, is to erect new premises. The plans have been prepared by Messrs. Barnes, Kirkwood and Woolf, of 85, Baker-street, W.1.

Charlton.—SCHOOL.—The L.C.C. recommend £20,537 for the erection of the Charlton-park L.C.C. school, and the supply of furniture. The scheme is also to include the erection of a schoolkeeper's house.

Croydon.—ALTERATIONS.—Alterations are to be made to the premises of Messrs. Batchelor and Son, Ltd., at North End. The scheme has been planned by Messrs. G. Baines and Son, FF.R.I.B.A., architects, of 121, Victoria-street, S.W.1.

Croydon.—REBUILDING.—The E.C. propose to rebuild the Oval school and to erect a new senior department at the Ashburton-grove school. The architect is Mr. J. M. Sheppard, F.R.I.B.A., 38, Bedford-place, W.C.1.

Dollis Hill.—ADDITIONS.—Additional accommodation is to be provided at the Gladstone Park swimming baths for the Willesden Urban District Council. The plans are by Mr. F. Wilkinson, engineer to the Council.

East Ham. — HOUSES. — The East Ham Borough Council has accepted a scheme submitted by the Borough Engineer for the laying out of streets and the erection of houses on 12 acres of land in Charlemont-road.

East India Dock-road.—ADDITIONS.—A scheme of extensions is proposed at the Poplar Hospital for Accidents. It is estimated that the cost will be about £30,000.

Edmonton.—BUILDING.—The B.G. are to erect an operating theatre at their Institution. Messrs. Miskin and Son, Ltd., of Romeland, St. Albans, are the contractors. Their estimate amounted to £4,825.

Finsbury-park.—REBUILDING.—The Manor House Hotel at the junction of Seven Sisters-road, Green-lanes and Woodbury-down, is to be rebuilt. The owners of the property are Messrs. Watney, Combe, Reid and Co., Ltd., of Stag Brewery, Westminster, S.W.1. The work is expected to cost over £30,000. The plans are in the hands of the company's architect.

Hammersmith.—SCHOOL.—The L.C.C. has accepted the tender of Mr. Albert Monk, of Lower Edmonton, N.9, for the erection of a central school on the Wormholt-park estate. The plans are by Mr. G. Topham Forrest, F.R.I.B.A., architect to the Council. The accepted price is £17,950.

Hendon.—HALL.—On the L.C.C. Watling estate at Burnt Oak, it is proposed shortly to erect a new Wesleyan Central Hall. Messrs. A. D. Jackson and Sons, Ltd., 35, Old Southend-road, Southend-on-Sea, have secured the contract. Their tender amounted to £15,500. The plans have been prepared by Messrs. Smee and Houchin, architects, Fleet House, Fleet-street, E.C.4.

Hendon.—FACTORY.—Factory buildings are to be erected at Rookery Way. Messrs. F. Coyle and Co., Ltd., 61, High-street, Brentford, have secured the contract. Their estimate amounted to £9,000. The plans have been prepared by Messrs. Wallis, Gilbert and Partners, architects, 29, Roland-gardens, South Kensington, S.W.7.

Hendon.—HOUSE.—Messrs. Watney, Combe, Reid and Co., Ltd., brewers, of Stag Brewery, S.W.1, are to erect a new public-house at Deansbrook-lane. The plans are in the hands of the company's architect.

Hendon.—BUILDING.—The L.C.C. has recommended that, subject to the consent of the Minister of Health, the plot of land at Watling estate with a frontage to Edgware-road, be let on building lease to Mr. R. F. Yeo.

Ilford.—SCHOOL.—The E.C. are to erect a new school, to be known as the Beal Central School. The cost is estimated at between £40,000 and £50,000. The architect is Mr. H. Shaw, Borough Surveyor.

Lambeth.—DWELLINGS.—The London C.C. are to build 34 tenements on the Wedgwood House site facing Kennington-road, Lambeth. The tender of Mr. A. T. Rowley, of Tottenham, N., has been accepted.

Mill Hill.—SWIMMING BATH.—Plans and estimates are being prepared for the suggested construction of an open-air swimming bath at Mill Hill by the Hendon Urban District Council. The proposed site is near the fire station.

Notting Hill.—FLATS.—Tenders are being invited by the Kensington Borough Council for the erection of 24 flats in Hesketh-place, Notting Hill, W.11. The plans are by the Borough Engineer.

Notting Hill-gate.—STORES.—Messrs. F. W. Woolworth and Co., Ltd., Victory House, Kingsway, W.C.2, are to erect new branch premises at 110-112, High-street. Plans have prepared by Mr. W. Priddle, the staff architect to the company. The new building is to be erected by Messrs. F. W. Woolworth's building department.

Old Bond-street.—SHOPS.—The block of old premises at the corner of Old Bond-street and Stafford-street is being demolished preparatory to the erection of a modern range of shops, with offices and showrooms above. This work is in the hands of Messrs. Henry Boyer, Ltd., of Terminus Wharf, Paddington Basin, W.2. The plans for the new block have been prepared by Messrs. Wimperis, Simpson and Guthrie, FF.R.I.B.A., architects, 61, South Molton-street, W.1.

Piccadilly. — ALTERATIONS. — Messrs. A. Edmonds & Co., Ltd., Constitution-hill, Birmingham, have secured the contract for a new shop-front, interior fittings, and structural work at 71, Piccadilly, W.1, for Mr. H. W. Phillips.

Poplar.—RECONSTRUCTION.—Messrs. Mann Crossman and Paulin, Ltd., brewers, Whitechapel-road, are to rebuild their premises, the "General Havelock" public-house at St. Leonard's-street. The plans have been prepared by Mr. W. Stewart, of 4, Aldgate, E.C.3. Messrs. Harris and Wardrop, of 10, Wallwood-street, E.14, are the contractors.

Regent's-park.—POND.—H.M.O.W. are inviting tenders for the erection of a children's boating pond in Regent's-park, N.W. The plans have been prepared by H.M.O.W. Architect's Department.

Shoreditch. — REBUILDING. — Provisional plans for the rebuilding of "The Horns" public-house, at the Shoreditch end of Hackney-road, have been before the Tower Division Justices.

South Kensington.—PREMISES.—The property at the corner of Cromwell-place and Alfred-place, opposite South Kensington Underground Station, is to be converted into a block of shops, flats and showrooms. The scheme has been planned by Messrs. F. Taperell and Haase, architects, of 5, Stratford-place, W.1. Messrs. G. Parker and Sons, Ltd., 124, Sumner-road, S.E.15, are the contractors.

Tooting.—CHURCH.—The erection of the new Church of St. Augustine is to be put in hand immediately. Messrs. J. Dorey and Co., Ltd., Distillery-road, Brentford, have secured the contract. The plans have been prepared by Mr. H. P. Burke Downing, F.R.I.B.A., of 12, Little College-street, S.W.1.

Tottenham.—FACTORY.—Messrs. A. Osment and Sons, builders, 79, The Crescent, Tottenham, N.15, are to erect a new factory building in Markfield-road. The plans have been prepared by Mr. C. E. Blackbourn, architect, 34, Finsbury-square, E.C.2.

Walworth. — PREMISES. — Alterations and additions are being made to 15a, Deacon-street by Messrs. J. Marsland & Sons, Ltd., builders, South Molton-street, W.1. The architects are Messrs. Briant & Son, Kennington Park-road, S.E. Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W.1, are supplying the constructional steelwork.

Willesden.—HOUSES.—Messrs. Pearce & Taylor, Ltd., builders, Burnley-road, N.W.10. are erecting 58 houses in Gearv-road, and six houses and garages in Park-avenue, Willesden Green, N.W.

Willesden. — ADDITIONS. — The Willesden Urban District Council are about to provide additional accommodation at the King Edward swimming baths, Harlesden, N.W.10. Mr. F. Wilkinson, engineer to the Council, has prepared the plans.

Wimbledon.—ADDITIONS.—Messrs. R. J. & J. S. Thomson, architects, 49, Wimbledon Hill-road, S.W.19, have prepared plans for additions to the vestries and lavatories, etc., at St. Mark's Church, St. Mark's-place.

NEW CINEMAS

Battersea.—The L.C.C. Theatres Committee has approved plans submitted by Mr. D. Mistlin, the managing director of the Globe Cinema, Northcote-road, Battersea, for the reconstruction of the premises. The architect is Mr. Bertie Crewe, 75, Shaftesbury-avenue, W.1, and the contract, as announced in our issue for November 29, has gone to Messrs. F. G. Minter, Ltd., of Putney.

Birmingham.—The erection of a new cinema on a site fronting Steelhouse-lane and abutting on Weaman-street and Slaney-street, for the Provincial Cinematograph Theatres, Ltd., and Gaumont-British Picture Corporation, is shortly to be put in hand. The contractors are Messrs. McLaughlin & Harvey, Ltd., of 24, Highbury-grove, N.5. The new building has beeen planned by Mr. W. T. Benslyn, A.R.I.B.A., 17, Easy-row, Birmingham.

Hunstanton.—A scheme is under consideration for the erection of a new cinema and variety theatre. The plans are in the hands of Mr. J. L. Carnell, F.R.I.B.A., architect, of Paradise-chambers, King's Lynn.

Southport.—The contract for the rebuilding of the "Palladium" cinema, in Lord-street, for the Provincial Cinematograph Theatres, Ltd., and Gaumont-British Picture Corporation, Ltd., has been given to Messrs. McLaughlin & Harvey, Ltd., 24, Highbury-grove, N.5. The architects are Messrs. Gray & Evans, of Liverpool.

Walthamstow.—Work is to be put in hand immediately upon the erection of the new "super" cinema in Hoe-street, E.17. Messrs. George Parker & Sons, Ltd., of 24, Sumner-road, S.E.15, have secured the contract. The plans have been prepared by Mr. Cecil Masey, F.R.I.B.A., of 15, Caroline-street, W.C.1.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9*	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 1036.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc

DECEMBER 16.

Alcombe.—35 Cottages.—Erection of, for the Minehead U.D.C. A. Douglas Barron, architect, Surveyor's Office, The Parade, Minehead. Dep. £2 2s.

Beverley.—Alterations.—Also additions to headquarters offices, at Sessions House, East Riding of Yorkshire. County Architect, County Hall, Beverley.

Cardiff.—Houses.—200, on Ely site, for T.C. City E. Dep. £2 2s.

Derby.—Masonry Work.—Erection of masonry parapet and abutment piers to Exeter Bridge, Derwent-street, Derby, for the Derby Corporation. C. H. Aslin, A.R.I.B.A., Borough Architect, Municipal Offices, Babington-lane, Derby. Dep £1 1s.

Eton. — Redecoration. — External, at housing schemes:—Gerrards Cross, Burnham Denham, Eton Wick, Farnham Common, Iver, Langley and Stoke Poges, for R.D.C. A. Gladwell, E. and S.

Glamorgan.—Installation.—Electric lighting at Hensol Castle, near Pontyclun, for C.C. H. Rowland, clerk, Glamorgan County Hall, Cardiff.

Halesowen.—Heating.—Central heating of Cornbow House, for U.D.C. E. and S.

Haslingden.—Houses.—24 non-parlour type, in stone, on Longshoot site, for T.C. R. Taylor, B.S. Dep. £2 2s.

Haverhill.—Houses.—16 non-parlour, in Recreation-rd., for U.D.C. J. H. Clarke, S. Dep. £2 2s.

Manchester.—Painting.—Basement of Crumpsall branch library, for T.C. City Architect. Dep. 10s. 6d.

Plymouth.—Repairs.—To premises at 2, Castle-st. and 11, Flora-st., for C.B. R. J. Fittall, T.C.

Truro.—Garage.—Residence and garage at Carbis Bay. A. J. Cornelius, F.R.I.B.A., architect, Truro.

Warrington.—Houses.—162, on Westy-lane site, for C.B. A. M. Ker, B.E. and S. Dep. £2 2s.

Windlesham.—Fire Station.—For U.D.C. C. Gray, S. Dep. £2 2s.

DECEMBER 17.

Charminster.—Houses.—21½ pairs, facing Luckham-rd., adjoining existing housing scheme, for Corporation. F. P. Dolamore, B.E.

Dundalk.—Building.—Laying of 8-in., 6-in., 5-in. and 4-in. dia. water mains in streets, and also building underground and overground sanitary conveniences, for U.D.C. M. Sellars, Town Surveyor. Dep. £2.

Ennis.—Extension.—Post Office, for Commissioners of Works, T. Cassedy, secretary, Offices of Public Works, Dublin. Dep. £1.

Hoylake and West Kirby.—Buildings.—Fire station and fireman's house, Hoylake, for U.D.C. E. and S. Dep. £2 2s.

Hull.—Branch Post Office.—Erection of, in Queen-st., Hull, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Larne.—Plumbing.—In connection with District Hospital, for B.G. J. A. Hanna, C.E., Prudential-buildings, 3, Wellington-place, Belfast.

Liverpool.—Buildings.—New conveniences, Allerton Tower estate, new conveniences, Edge-lane-drive recreation ground, three hard tennis courts, Sefton-park, shelter, Newsham-park, alterations, ladies' conveniences, Stanley-park, for T.C. Land Steward and Surveyor.

London.—Painting.—Painting and renovating staircases at City of Westminster Institution, 367, Fulham-rd., S.W.10, for Westminster B.G. W. J. Lickley, clerk, Guardians' Offices, Princes-row, Buckingham Palace-rd., S.W.1.

London.—Lighting.—Rewiring for electric lighting at (1) Patent Office, (2) Public Record Office W.C., for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

Rochdale.—Painting.—At Birch Hill Hospital, Dearnley, near Rochdale, for B.G. I. Clegg, clerk.

Southport.—Demolition.—Dismantling and removal of material, comprising "Scarisbrick engine house," and certain other works on the same site, situated on main Southport-Ormskirk-rd., near Scarisbrick, for Southport and District Water Board. C. Burton Ede, engineer and manager, 14, Portland-st., Southport. Dep. £1.

Stretford.—Extension.—Addition of practical training rooms at Victoria-park school, and addition of one room to Gorse-hill school, for E.C. P. Howard, A.R.I.B.A., 88, Mosley-st., Manchester. Dep. £2 2s.

Willesden.—Baths, Additions, etc.—Providing additional dressing accommodation at the King Edward Swimming Baths, Harlesden, N.W.10, also construction of buildings and drainage, together with structural alterations and additional dressing accommodation at Gladstone Park Swimming Bath, Dollis Hill, for the Willesden District Council. F. Wilkinson, Engineer to the Council, Town Hall, Dyne-rd., Kilburn, N.W.6.

DECEMBER 18.

Bridge.—Houses.—12, at Shalmsford-st., Chartham, for R.D.C. H. K. Blundell, Building S.

Cardiff.—Painting.—Clarence-bridge, for T.C. City E.

Folkestone.—Telephone Exchange.—Erection of, at Lyminge, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Glasgow.—Installation.—Of electric lighting and electric heating in South Carntyne temporary school and Our Lady and St. Margaret's school temporary annexe, for E.C. R. Burns, Executive Officer.

Kensington.—Demolition and Erection of Flats.—Demolition of existing buildings and for the erection of 24 flats in Hesketh-pl., Notting Hill, for the Royal Borough Council of Kensington. B.E. and S., Town Hall, Kensington, W.8. Dep. £2 2s.

Methil.—Additions.—To St. Agatha's R.C. school, Methill, for Fife E.C. G. Sandilands, architect and master of works, Education Offices. Dep. £1 1s.

Rochester.—Pavilion.—Erection on the Playing Field in Willis-av., Rochester, for the Governors of Sir Joseph Williamson's Mathematical School, Rochester. George Bell, Clerk to the Governors, 115, High-st., Rochester.

Smethwick.—Houses.—38 non-parlour, Brisbane-rd., for C.B. R. Fletcher, B.E. and S. Dep. £2 2s.

Wadsley.—Works.—Plasterer's work and wiring for electric light at Mental Hospital, near Sheffield, for West Riding Mental Hospitals Board. W. E. H. Burton, architect and engineer, West Riding Mental Hospitals Board, Wakefield.

DECEMBER 19.

Askham Bryan.—Improvements.—(1) Westfield Farm, repairs, alterations and additions to house and farm buildings; (2) East Barrow Farm, repairs, alterations and additions to house and farm buildings, new stables, piggeries, and two cottages; (3) poultry section, detached cottage and service block, for Yorkshire Council for Agricultural Education. Pick, Everard, Keay & Gimson, architects, 6, Millstone-lane, Leicester. Dep. £2 2s.

Burton-on-Trent.—Houses.—28, at Anglesey, for C.B. George T. Lynam, B.E. and S.

Durham.—School.—Erection and completion of the new Secondary school upon a site at Low Spen, near Hookergate, for the Durham C.C. F. Willey F.R.I.B.A., 34, Old Elvet, Durham.

Durham.—Schools.—Erection of, at Castle Eden Colliery, Bullion-lane, Chester-le-Street, and Pittington, for the Durham C.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Manchester.—Fencing.—Iron post and rail fencing at Casson-st. recreation ground, Gorton, for T.C. City E. Dep. £1 1s.

North Berwick.—Housing.—4 blocks of 4 houses each, at Lochbridge, for T.C. A. Robertson, B.S.

Plymouth.—Convenience.—At Phœnix-st., Stonehouse, for T.C. J. Wibberley, City Engineer and Architect. Dep. £2 2s.

Walton-on-Thames.—Garage, etc.—Erection of, at the Post Office Engineers' Stores, Walton-on-Thames, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 20.

Aberdeen.—Dwellings.—3-apartment dwellings of three blocks at Torphins, Aboyne, and Lumphanan, for Deeside D.C. of C.C. W. D. Wilson, surveyor, Earlslea, Aboyne.

Downham Market.—Post Office.—Erection of, at Downham Market, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Dublin.—Installation.—Electric lighting installation at Stationery Office, Beggar's Bush Barracks, for Commissioners of Public Works. T. Cassedy, Secretary, Office of Public Works, Dublin. Dep. £1.

Glasgow.—School.—New school at North Carntyne, for E.C. R. Burns, Executive Officer.

Mount Pleasant, E.C.—Internal Painting.—At the new Letter Office, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 21.

Halifax.—School.—Erection of new Girls' High school, trades in connection therewith, at Craven Lodge, for the Halifax County Borough Council. A. C. Tipple, Borough Engineer, Crossley Street, Halifax. Dep. £2 2s. (cheques payable to the Corporation).

Halifax.—Conversions.—Plumbing work required in connection with conversion of closets in various parts, for C.B. A. C. Tipple, B.E., Crossley-st. Dep. £1 1s.

Halifax.—Demolition.—Pulling down and removal of all materials of every description in lodge at Westfield, for C.B. B.E.

Llandrindod Wells.—Alterations and additions to the above Intermediate school for the Radnorshire E.C. J. Mostyn, M.C., M.A., Director of Education, County Education Offices.

***Rawmarsh.**—Houses.—Erection of 100 houses on the Ryecroft Housing Estate, for the U.D.C. J. A. Tonge, L.R.I.B.A., Council Offices, Parkgate, Yorkshire, W.R. Dep. £2.

DECEMBER 23.

Guildford. — Alterations. — Also additions to Borough police station, North-st., for T.C. J. W. Hipwood, B.E. and S.

Hull.—School.—Elementary school in Flintongrove, for 1,280 scholars, for E.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £2 2s.

Leeds.—Houses.—On Dewsbury-rd. housing estate, for T.C. J. E. Acfield, City E.

Long Eaton.—Houses.—11, Hawthorne and Myrtle-av., and 52, Wellington-st. and Duckholm-rd., for U.D.C. H. Raven, architect, Town Hall. Dep. £5 5s. each.

Norwich.—Additions.—Alterations and additions to "Quebec Tavern" public-house, Quebec-rd., for Morgans Brewery Co., Ltd. T. Foster Johnson, L.R.I.B.A., Surveyor. Dep. £2 2s.

Windermere. — Reroofing. — Retort house with asbestos sheets, and appurtenant works, for U.D.C. F. Carlisle Needham, E. and S.

DECEMBER 27.

Salford.—Alterations.—Structural alterations, asphalting, and partitions, at Frederick-rd. Open-air school, for T.C. H. H. Tomson, T.C.

DECEMBER 30.

Galway.—Addition.—Also alterations to hotel, for Gt. Southern Railways. Chief Engineer, Westland-row Station, Dublin, C.5. Dep. £1 1s.

***Loughborough.**—Fire Station and Firemen's Cottages.—Erection of, for the Corporation. Harry Perkins, Town Clerk, Loughborough. Dep. £3 3s.

Stevenage.—Houses.—58 in Whites Mead-rd., for U.D.C. Reg. A. Gandy, E. and S. Dep. £2 2s.

West Riding.—Installation.—Low pressure hot water gravitation heating installation and plumbers' work in domestic hot water installation, at Whitwood Mining and Technical Institute, for West Riding E.C. Education Officer, County Hall, Wakefield.

DECEMBER 31.

Bradford.—Heating.—Low pressure hot water heating apparatus, etc., and electric passenger and goods lifts, at shop and office premises, Leeds-rd., Bridge-st., and Hall Ings, for T.C. City Architect.

***Maidenhead.**—New Diphtheria Block.—Erection of, at their Isolation Hospital, for the T.C. The Town Clerk, Guildhall, Maidenhead. Dep. £3 3s.

Regent's Park, N.W. — Consrucion. — Of a Children's Boating Pond, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Rugby.—Painting.—Certain work at Harborough Magna Infectious Diseases Hospital, for Rugby Joint Hospital Board. M. E. T. Wratislaw, clerk, 16, Church-st.

Southall.—Telephone Exchange.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep., £1 1s.

Southampton. — Extension. — Hampton Park Telephone Exchange, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Sutton.—Extension.—Of Sorting Office, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Teddington.—Compressed Air Tunnel Building.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

***Wimbledon.**—Cycle Store and Dressing Room.—Construction of, for the Borough Council. Borough Engineer's Office, 123, The Broadway, Wimbledon, S.W.19. Dep. £1 1s.

JANUARY 1.

Curragh.—Painting.—Internal and external, at Plunkett and Connolly Barracks, Curragh Camp, Co. Kildare, for the Minister for Defence. Secretary, Department of Defence (Contracts Section), Parkgate, Dublin. Dep £1 1s

Egypt.—Ironwork.—Wrought-iron doors, grilles, balustrades, etc., for Board's new headquarters at Alexandria, for International Quarantine Board of Egypt. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5719.)

JANUARY 2.

***Folkestone.**—Telephone Exchange.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

London.—Alterations.—To electric lighting installation at South-Western Fever Hospital, Landor-rd., Stockwell, S.W.9, for M.A.B. T. Cooper, Engineer-in-Chief. Dep. £1.

JANUARY 3.

***Durham.**—Alterations.—For the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 4.

***Garston, near Watford.**—New County Council School.—Erection of, for the Herts C.C. A. Ernest Prescott, County Surveyor's Office, Hatfield, Herts. Dep. £1 1s.

Nantwich.—Houses.—60 non-parlour type on Dog-lane site, for U.D.C. P. H. Paton, S. Dep. £2 2s

Near Newcastle, Staffs.—Nurses' Home.—Erection of, for the Stoke and Wolstanton Union. The Clerk, Union Offices, Stoke-upon-Trent. Dep. £3

***Rock Ferry, Birkenhead.**—School.—Erection of, for the Education Committee. Town Clerk, Town Hall, Birkenhead Dep. £2 2s.

Woking.—Cottages.—10 pairs, at Lower Knaphill, for U.D.C. E. and S.

JANUARY 6.

***East Acton.**—Flats.—Erection of 28, for the Town Council. The Town Clerk, Borough of Acton, Municipal Offices, Acton, W.3. Dep. £2 2s

JANUARY 7.

Blayney.—Extensions.—Alterations and repairs, St. Mary's Church, Muckno, Castle Blayney, for Rev. A. T. Canon Maguire, P.P., and Parochial Committee. J. F. McGahon & Son, architects, Dundalk. Dep. £5 5s.

***Rowley Regis.**—Public Sanitary Convenience.—Erection of, for the U.D.C. Daniel Wright, Clerk to the Council.

JANUARY 9.

***Charlton Park.**—79 Houses.—Erection of, for the Metropolitan Borough of Greenwich. Town Clerk, Town Hall, Greenwich. Dep. £2 2s.

JANUARY 11.

Newtownards.—Conversion. — Reconstruction of existing workhouse buildings into district hospital, for B.G. Young & Mackenzie, chartered architects, Belfast. Dep. £5 5s.

JANUARY 22.

Brentford.—Building.—Steam disinfector at West Middlesex Hospital, Isleworth, for B.G. F. E. Harmsworth, clerk, Toolands House, 34, Twickenham-rd., Isleworth.

NO DATE.

Brecon.—Electric Light.—Installation at police station, for Breconshire Standing Joint Committee. H. C. W. Strickland, County Architect, County Offices.

Canada.—School.—New school buildings and extensions and for the equipment of a technical school in Western Canada. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. C.X. 3162.)

Kinnersley.—Alterations.—To house. —. James. Oldcastle Farm, Kinnersley.

Leicester.—Club.—For South Leicester Working Men's Club. R. E. Carpenter & Son, quantity surveyors, etc., Palace-chams. Dep. £2 2s.

Malton.—Concreting.—4,000 sq. yds. at premises of Yorkshire and Northern Wool Growers, Ltd., Norton, Malton F. S. H. Ward, 2, Saville-st.

Rothwell.—Additions.—Also conversion of conveniences, at Council school, for West Riding E.C. P. Beaumont, W.R. Education Office, 8, St. John's North, Wakefield.

Selby.—Church.—Private chapel, St. Mary's Catholic Church. Blenkinsopp & Scatchard, architects, Park-st.

Woolacombe.—Residence.—For Miss A. E. Roberts. Oliver & Son, architects, Barnstaple.

MATERIALS, etc.

DECEMBER 16.

Berkshire.—Road Materials.—For C.C. Lt.-Col. J. F. Hawkins, C.S.

DECEMBER 18.

Manchester.—Paints, etc.—For Cleansing Committee. B. B. Jones, Director of Public Cleansing.

Nottingham.—Building Materials.—For Gas Department. Engineer and General Manager. Gas Offices, 6, George-st.

DECEMBER 21.

East Suffolk.—Road Materials.—For C.C. W. Jervis C.S.

Norfolk.—Sand, etc.—For C.C. S. H. Warren, C.S.

DECEMBER 28.

Isle of Wight.—Road Materials.—For C.C. A. J. A. Harris, County Highways Surveyor, County Hall, Newport, I. of W.

DECEMBER 30.

Beckenham.—Bricks.—153,000 red paving bricks, 2 in. thick, for U.D.C. H. Storr Best, S. Dep. £2

Hereford.—Road Materials.—For T.C. City E.

DECEMBER 31.

Dover.—Tar.—30,000 galls., for T.C. W. Boulton Smith, B.S.

Dover.—Granite Chippings.—For T.C. W. Boulton Smith, B.E.

JANUARY 4.

Johannesburg.—Tar, etc.—Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5914).

JANUARY 6.

Lindsey (Lincs).—Highway Materials.—For C.C. A. G. Bradshaw, C.S

FEBRUARY 3.

Cairo.—Asphalt.—Egyptian Ministry of Public Works, 6,800 metric tons of asphalt for Tanzim Department, Cairo. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5923.)

ENGINEERING, IRON AND STEEL

DECEMBER 16.

Cleethorpes.—Bridge.—Concrete sluice bridge over Buck Beck, with tidal and land gates, for U.D.C. L. W. Pye, E. and S.

Manchester. — Steelwork. — At Barton power station, for T.C. H. C. Lamb, Chief Engineer and Manager, Electricity Department. Dep. £1 1s.

Reigate.—Drainage.—7,700 yds. stoneware sewers of 7-in. and 9-in. dia., together with manholes, ventilating shafts, flushing tanks and other appurtenant works; also sewage pumping station, comprising pump chamber and suction tank, all below ground, together with pumping machinery and pipe connections, etc., for R.D.C. G. Bertram Kershaw, engineer, 9, Victoria-st., Westminster, S.W.1. Dep. £5.

DECEMBER 18.

Birmingham. — Steelwork — Reconstruction in mass concrete and steelwork of Fordhouse-lane bridge over River Rea, together with road works in approaches and reconstruction of foul and surface water sewers, for T.C. H. H. Humphries. City E. and S. Dep. £2.

DECEMBER 19.

Johannesburg.—Steelwork.—Supply and delivery only of constructional steelwork, etc., for engine shed and repair shop, Salt River, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8742.)

DECEMBER 21.

Chippenham.—Improvements.—Also additions to water supply, for R.D.C. Parker Pearson & Ross Hooper, engineers, Dallas-chams., Chippenham. Dep. £5.

DECEMBER 23.

Glasgow.—Bridges.—Two steel plate-web girder bridges, for T.C. D. A. Donald, E., 271, Alexandra-parade, Glasgow, E.1. Dep. £3 3s.

West Riding.—Widening.—Of bridge carrying Westwood new road over lines of L. and N.E. Rly. Co., approx. 800 yds. north of Westwood Station, Wortley, for C.C. West Riding Surveyor. Dep. £1.

West Riding.—Bridge.—Bridge to carry Todmorden, Halifax and Burnley main road over Rochdale Canal, Mytholmroyd, for C.C. West Riding Surveyor. Dep. £1.

DECEMBER 30.

Loughborough.—Sewage.—Extensions to disposal works, for T.C. W. Granger, B.S Dep. £3 3s.

JANUARY 2.

Johannesburg.—Bridgework.—Structural bridgework, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8791.)

JANUARY 6.

Salisbury.—Bridge.—Reinforced concrete bridge, for T.C. Howard Humphreys & Sons, Consulting Engineers, 28, Victoria-st., Westminster. Dep. £3 3s.

JANUARY 7.

Romford.—Sewerage.—Main outfall sewer about 4,000 yds. in length, including 600 yds. of 48-in. cast iron pipes and 3,400 yds. of 48-in. concrete tubes, together with 12 settling tanks, 12 bacteria beds, humus tanks, for U.D.C. Willcox & Raikes, engineers, 33, Great Charles-st., Birmingham. Dep. £5 5s.

JANUARY 8.

Blackpool.—Bridge.—Steel plate girder bridge in three spans on brick and concrete abutments, to be constructed over L.M. and S.R at Bispham Station, for C.B. Francis Wood, B.E. and S. Dep. £1.

JANUARY 9.

Johannesburg.—Steelwork.—Structural steelwork, etc., for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8834.)

FEBRUARY 1.

Cairo.—Bridge.—Over River Nile at Kasr-el-Nil, for Main Roads and Bridges Department. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8704.)

MARCH 4.

Wellington, N.Z.—Structural Steel.—Structural steel, galvanised screens and ladder rungs, for Public Works Department, New Zealand. Department of Overseas Trade, 35, Old Queen-st., London, S.W.1. (Ref. A.X. 8785.)

NO DATE.

Rotherham.—Sewerage.—Sewage disposal works on Ravenfield Common, sewage pumping station at Silverwood, etc., for R.D.C. C. O. Rawstron, E. and S. Dep. £3 3s.

ROAD, SEWERAGE, AND WATER WORKS

DECEMBER 16.

Ashborne.—Sewers.—Laying of sewers and construction of concrete road about 150 yds. in length, for U.D.C. D. Powell, E. and S. Dep. £1 1s.

Blean.—Sewer.—433 yds. lin. of 9-in. stoneware pipe sewer, four manholes and other works appertaining thereto, at Mill-lane, for R.D.C. F. A. Ward, S. and E.

Carlisle.—Roads.—Tarmacadam footways and roadways, approx. 970 yds. in length, on the Raffles-Newtown housing estate, for T.C. P. Dalton, A.R.I.B.A., City E. and S., 18, Fisher-st. Dep. £1 1s.

Epping.—Reconstruction.—Honblon's-hill, about 915 yds. run; Stonards-hill, about 1,455 yds. run; and Bower-hill, about 467 yds. run; for U.D.C. S.

Hendon.—Improvements.—To Deansbrook-rd., for U.D.C. A. O. Knight, E. and S.

Kingston-upon-Hull.—Water Supply.—Laying of about five miles of 2-in., 3-in., and 4-in. water main, at Holderness, for T.C. W. D. Bingham, City Water and Gas Engineer. Dep. £1.

Mitcham.—Relaying.—Taking up and relaying 750 ft. of 9-in. dia. soil sewer in Fieldgate-lane, for U.D.C. S.

Northwich. — Reconstructing. — Moss-rd. South and making-up of Northway, for U.D.C. F. L. James, S.

Pembrokeshire.—Improvement.—Of road at Kingsbridge, on Canaston-Pembroke road, for C.C. A. H Thomas, A.R.I.B.A., C.S., Haverfordwest. Dep. £5 5s.

DECEMBER 17.

Cardiff.—Making-up.—Lady Mary-rd., Roath Branch-lane South, Aber-lane, Taff Embankment-lane, Corporation-lane East, Fairwater-grove-lane West, St. Michael's-road, for T.C. City E

Enfield.—Improvements.—Ladbroke-rd. (part of), Bradley-rd., Uvedale-rd. (part of), Cromwell-terr., Clive-rd. (part of); Ingersoll-rd., Ridge-crest, for U.D.C. H. R. Crabb, S. Dep. £2 2s.

Hambledon.—Making-up.—Of Orchard and Tillingbourne-rds., Shalford, for R.D.C. S. B. Hasell, E. and S. Dep. £2 2s.

Manchester.—Asphalting.—In coloured asphalt, dining-room floor at Withington Institution, Nell-lane, West Didsbury, for B.G. —. Hargreaves, Superintendent of Works, Union Offices, All Saints

Prestwich.—Road.—Construction of sections 1 and 2 of road between Sedgley-pk.-rd. and Bury Old-rd., for U.D.C. E. and S. Dep. £2 2s.

Warsop.—Water Supply.—From Glapwell along Rowthorn-lane to Rowthorn, for U.D.C. Elliott & Westwick, Gilcroft-chams., Church-lane, Mansfield. Dep. £2 2s.

DECEMBER 18.

Belper.—Sewer.—115 yds. of 6-in. pipe sewer near Cross, Crich Parish, for R.D.C. R. C. Cordon, E. and S.

Birmingham.—Reconstruction.—In St. Andrew's rd., Kenyon-st., Charles-st. (Handsworth), between Downing-st. and Alfred-st., parts of Wharfdale-rd. (Tyseley), and Loveday-st. from Shadwell-st. to near Lench-st., for T.C. H. H. Humphries, City E. and S. Dep. £2 each.

Bridlington.—Mains.—24 tons of 3-in internal dia. cast-iron water pipes, 9 ft. long, for T.C. W. Thompson, Waterworks Engineer, Marton-rd.

Clacton.—Drainage.—Laying about 2,350 lin. yds. of 36 in. by 24 in. to 27 in by 18 in. concrete tubes, and 1,630 lin. yds. of 18 in., 15 in., 12 in. and 9 in. stoneware pipes, with manholes and other incidental works, for U.D.C. W. Aiston, S. Dep. £5 5s

Edinburgh.—Extension.—Cast-iron water main to Kellerstain, for District Board of Control. S. Kaye, A.R.I.B.A., architect, 14, Hill-st., Edinburgh.

DECEMBER 19.

Lichfield.—Sewers.—(1) Sewers in village of Alrewas; (2) sewage-disposal works, ejector chambers, rising main and compressor-house; (3) air compressors, receivers and pneumatic ejectors, for U.D.C. C. E. Mays, E. Dep. £2 2s.

Luton.—Sewer.—Laying 9-in. foul sewer in Blundell-rd., from Trinity-rd. to Alder-crescent, for T.C. J. W. Tomlinson, B.E. Dep. £1 1s.

South Mimms.—Road.—500 yds. of road from northern end of Cronborne-rd. to sewage disposal works at Potters Bar, for R.D.C. G. Simcox, S., The Causeway, Potters Bar. Dep. £2 2s.

DECEMBER 20.

Beddington and Wallington. — Making-up. — Church-rd., Link-rd., and Hillcrest-rd., for U.D.C S. F. R. Carter, E. and S. Dep. £1 1s. each.

Hayes.—Sewer.—1,050 yds. of 18-in. sewer and 350 yds. of 9-in. sewer, together with 14 brick manholes and all appurtenant works thereto, in Borwell Common-rd., for U.D.C. G. H. Connor, E. and S. Dep. £2 2s.

Torquay.—Drainage.—At Shiphay and Edginswell districts, for T.C. H. A. Garrett, B.E. Dep. £3 3s.

DECEMBER 21.

Bangor.—Widening.—Road widenings on sections of London to Holyhead-rd., within Borough boundary, for T.C. B. Price Davies, E. and S.

Manchester.—Road.—Construction of Princess-rd. extension from Barlow Moor-rd to Stockport-rd. Northenden, for T.C City E. Dep £5 5s.

Rhondda.—Sewerage.—1,100 tons of cast-iron pipes, chiefly 27 in. and 30 in. dia., together with the necessary specials, for U.D.C. E. Taylor, E. and S.

DECEMBER 23.

Finchley.—Paving.—Providing and laying creosoted deal blocks, including reinforced concrete foundations, in main roads, for U.D.C. T. Harrison, 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep £2.

Gravesend.—Drainage.—Main drainage scheme in part of borough known as "No. 3 Sand Area," including picking up existing house drains and connecting to public sewers, for T.C. F. T. Grant, B.E. and S. Dep. £5.

Woodford.—Paving.—Asphalt paving to carriageway, including reinforced concrete foundation, sewers, surface water drainage, kerbing, channelling, pavings, crossings, etc., in Snakes-lane, for U.D.C. A. D. Ward, S. Dep. £3 3s.

DECEMBER 30.

Beckenham.—Paving.—4,000 super. yds. of artificial stone paving, for U.D.C. H. Storr Best, S Dep. £2

Beckenham.—Making-up.—Clement-rd., Seward-rd., Villiers-rd., The Drive, Church-av., The Crescent, and St. George's-rd., for U.D.C. H. Storr Best, S. Dep. £2.

Milton.—Sewer.—3,000 yds. sewer, mostly 12 and 15 in. dia., with manholes, ventilating shafts, etc., for U.D.C. A. J. Martin, E., 108, St. George's-sq., Westminster. Dep. £3 3s.

Ruislip-Northwood.—Sewers.—Laying of soil and surface water sewers, with manholes and incidental works, at South Ruislip, for U.D.C. H. R. Metcalfe, E. and S. Dep. £2 2s.

DECEMBER 31.

Dover. — Widening. — Of Elms Vale-rd. from Church-rd. to Borough boundary, for T.C. Wm. Boulton Smith, B.E., Maison Dieu House, Dover. Dep. £2 2s.

Leicester.—Surfacing Works.—On Brannstone estate, for T.C. J. S. Fyfe, A.R.I.B.A., Housing Architect. Dep. £2 2s.

JANUARY 6.

Ely.—Mains.—New cast-iron water mains in Littleport, for R.D.C. Silcock & Simpson, engineers, 25, Victoria-st, Westminster, S.W. Dep. £5.

JANUARY 7.

Cairo.—Mains.—Water mains for town of Luxor (Upper Egypt), for Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. A.X. 8812.)

FEBRUARY 10.

Londonderry.—Pipes.—Provision and laying of a double line of 12-in. steel pipes, with cast steel ball and socket joints, in trench under bed of River Foyle, for T.C. W. Criswell, engineer, Guildhall. Dep. £5 5s.

Auction Sales, Tenders, etc.

JANUARY 14.

Dorchester.—Drivers, Jonas & Co., will sell, at the White Hart Hotel, Dorchester, Oxon, Freehold Residential or Business Premises, situate in High-st. and Queen-st., comprising the College premises, with 30 rooms and garden; the Institute with 7 rooms and garden; cottage and yard. Auctioneers, 7, Charles-st., St. James'-sq., S.W.1.

Public Appointments

DECEMBER 16.

Cambridge.—Deputy County Architect required by the Cambridgeshire County Council. Applicants must be Associates or Licentiates of the R.I.B.A. Ashley Tabrum, Clerk, County Hall, Cambridge.

Cornwall. — Architectural Assistant in the County Architects' Department required by the Cornwall County Council. Deputy Clerk of the County Council, County Hall, Truro.

Hull. — Architectural Assistant: one senior assistant, two general assistants, one junior assistant required by the Hull City Council. City Architect, Guildhall, Hull.

DECEMBER 18.

Southampton.—Two Architectural Assistants required in the Borough Engineer's Office, 33-35, French-street, Southampton.

DECEMBER 19.

Hull.—Architectural Assistant (Temporary) required by the E.C. R. C. Moore, Director of Education, Education Office, Guildhall, Hull.

DECEMBER 21.

Tunbridge Wells.—Engineering Assistant required by the B.S., W. H. Maxwell, Assoc.M.Inst., C.E., Borough Surveyor and Waterworks Engineer, Calverley Mount, Tunbridge Wells.

DECEMBER 23.

***Eastbourne.**—Clerk of Works.—(Temporary). Leslie Roseveare, Borough Engineer, Town Hall, Eastbourne.

***Brighton.**—Assistant Building Inspector, Borough Engineer and Surveyor, Town Hall, Brighton.

DECEMBER 27.

***Plymouth.**—Three Architectural Assistants (temporary) required. J. Wibberley, A.M.Inst.C.E., Municipal Buildings, Plymouth.

DECEMBER 31.

*****Derby.—Estates Manager required by the T.C. Town Clerk, Market-place, Derby.

***Exeter.**—Architectural Assistant required in the City Architect's Dept. John Bennett, City Architect, Exeter.

JANUARY 30.

London.—Principal required at the Central School of Arts and Crafts, Southampton-row, W.C.1, by the L.C.C. Education Officer (T.1), The County Hall, Westminster-bridge, S.E.1 (stamped addressed foolscap envelope necessary).

MARCH 6.

London.—Assistant Examiners: (Forthcoming Examination) in the Patent Office (20-25, with extension in certain cases). The Secretary, Civil Service Commission, Burlington-gardens, London, W.1.

NO DATE.

***Weston-super-Mare.**—Architectural Assistant required by the Somerset C.C. County Architect, Lloyds Bank-chams., West-st.

PATENTS

321,299.—W. C. King: Heating buildings by electricity.

321,325.—C. E. Tetlow: Ceilings, walls, floors, and roofs.

302,894.—H. Daney: Copying machines for wood, particularly for the manufacture of winding wooden staircase walls and handrails.

321,343.—G. Courau: Pipe connections.

321,358.—W. Siller: Method of joining the ends of pipes placed in juxtaposition.

306,894.—R. Bosch Akt.-Ges.: Means for leading-in electric conductors through metal walls.

321,384.—François Cementation Co., Ltd., W. R. Degenhardt, A. F. de Fraine, R. A. W. Bicknell, and A. Bicknell: Rock-abrading machines.

Note.—Period for opposition expires on January 13, 1930.

Trade Opportunities Abroad.

The Commercial Secretary to the Residency, Egypt, reports that the Egyptian Ministry of Public Works is calling for tenders, to be presented in Cairo by February 3, 1930, for the supply of 6,800 metric tons of asphalt for the Tanzim Department, Cairo. Firms desirous of offering asphalt of British production can obtain further particulars of this call for tenders upon application to the Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference number B.X.5923 should be quoted.

The Officer-in-Charge of His Majesty's Trade Commissioner's Office in Vancouver reports that authority has recently been granted for the raising of a loan of 495,000 dollars for the purpose of erecting new school buildings and extensions and for the equipment of a technical school in Western Canada. United Kingdom firms interested in this matter as offering possible opportunities for the supply of technical school equipment, building materials, hardware, sanitary ware, etc., may obtain further particulars on application to the Department of Overseas Trade, 35, Old Queen-street, London, S.W.1.

PROPOSED NEW BUILDINGS & OTHER WORKS*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

Ashington.—Scheme prepared for church at St. Andrew's, Seaton Hirst, for Rev. F. A. Parkins.

Ashton-under-Lyne.—P. Howard, A.R.I.B.A., 88, Mosley-st., Manchester, been appointed to prepare plans for school, Queen's-rd., for E.C.—Scheme under consideration for public baths.

Audenshaw.—R. Martin, L.R.I.B.A., diocesan surveyor, 90, Deansgate, Manchester, preparing plans convert schools into permanent church.

Ballymoney.—Hospital is to be erected.

Banstead.—London C.C. recommend, subject to approval of plans by M.H., £56,900, in respect of provision and equipment of admission hospital at Banstead mental hospital.

Barnet.—U.D.C. instructed S. to prepare scheme for flats on remainder of shopping site at Wellhouse estate.

Barrowford.—National Institute for Deaf acquired property Spring-grove for home for women.

Bingley.—F. Atkinson, L.R.I.B.A., Old Bank-chambs., architect for club premises, Peel-st.

Bingley.—H. Bottomley, E. and S., preparing plans for 90 houses at Cross Flats, for U.D.C.

Blackpool.—Halstead Best, F.R.I.B.A., 20, Clifton-st., preparing plans for alterations at Royal Pavilion Theatre, Digby-rd.

Bolton.—Bradshaw Gass & Hope, FF.R.I.B.A., 19, Silverwell-st., architects premises and reconstruction of premises, Arkwright-st., for Day Nursery Committee.

Bournemouth.—T.C. approved: additions, Linden Hall, Christchurch-rd., Exton Hotels, Ltd.; 3 lock-up garages, Grange Hotel, Southbourne Overcliffe-drive, Grange Hotel Co., Ltd.; 4 houses, Elmes-rd., H. Stanton, 18 houses, Seafield-rd., M. Brown & Sons; 12 houses, Covena-rd., M Brown & Sons; 5 houses, Covena-rd., S. Kermode.

Bradford.—M.H. is to be asked by deputation from Bradford Corporation Street Improvement Committee to permit immediate rebuilding central area at £230,000. Second section is block between Leeds-rd. and Market-st., and third section open space at rear of Midland Hotel.

Bradford.—Corporation intend to pursue negotiations for purchase of land near present Thornton infants' school for new infants' school.

Brierley Hill.—Rector of Brierley (Rev F. A. Smith) has purchased site, Nagersfield housing estate, Brettell-lane, from U.D.C. for Sunday school.

Brighton.—E.C. propose structural schemes include building hall at rear of 8 and 9, Eastern-terr. for Training College purposes, and remodelling Middle-st. School for £7,000 as junior mixed school.—Also recommended that Lewes-rd. school be re-erected. This is estimated to cost £29,000.

Brighton.—C.B. approved £383,000 road scheme, which will include widening and setting back four miles of cliff top road.

Burnley.—T.C. approved: 7 houses and shops, Disraeli-st., J. S. Stanworth.

Cardiff.—T.C. proposing £460,000 road schemes.—Council recommend £16,000 for sea wall at Splott.

Carshalton.—M.A.B. recommend plaster to ceilings of top floors of new staff blocks in extension of Queen Mary's Hospital for Children at £252.

Castle Donington.—Proposal to connect Derbyshire and Leicestershire by means of a bridge over River Trent at King's Mill, is afoot, and is receiving support of Castle Donington R.D.C.

Cavan.—C.C. approved proposal Board of Health to borrow £2,000 for work at County Home and Fever Hospital.

Chesterfield.—T.C. approved: £60,000, utilisation of Tapton House as school, erection boys' modern school at Boythorpe, completion conversion of Highfield Hall, and additions to schools at Derby-rd., Brushes, Ashgate-rd. (Central) and Old-rd.

Cleveleys.—R. H. Cunliffe, F.R.I.B.A., Victoria-rd., Cleveleys, architect restaurant and house, Fleetwood-rd., Thornton Cleveleys, for Mrs. E. F. Harrison.

Colchester.—T.C. decided to intimate to agents of two owners of land required for further housing site at Ipswich-Harwich-rds.

Colne.—Sanction been given by M.H. for 76 additional houses on site east of Alkincoates-pk.—B.E. to prepare sketch plan and estimate of cost of by-pass road to relieve traffic along main street of town.

Crowland.—Church Council, Crowland Abbey (Rector, Rev. G. D. K. Clowes), proposed improvements, at £1,000.

Dartford.—M.A.B. recommend repairs outer sites of piggery and windows of laundry at Darenth Training Colony, at £470.

Dartford.—M.A.B. recommend alterations female staff quarters and school accommodation Training Colony at £2,785.

Dartford.—M.A.B. received M.H. sanction to £346 for accommodation at Southern Hospital.

Dewsbury.—M.T. to contribute £9,390 towards cost of widening Slaithwaite Bridge.

Dewsbury.—B. of E. approved sketch plans of proposed Wheelwright Grammar school, prepared by B.S.

Doncaster.—W. R. Crabtree, S. to R.D.C., prepare plans for 24 houses, Rossington.

Doncaster.—New R.C. school for Managers of St. Peter's R.C. church.—T. H. Johnson, architect, Priory-place, prepared plans for branch stores at Intake, for Doncaster Co-operative Society, Ltd. Tenders to be invited.—Mr. R. E. Ford, estates surveyor, prepared plans swimming baths, at corner of Waterdale.

Dukinfield.—Funds being raised, permanent church and school in Tame Valley by members of St. John's Church.

Dungarvan.—U.D.C. proposes 40 dwellings.

Durrow.—Kilkenny C.C. granted £1,00 for dispensary.

Ealing.—E.C. propose £216,000 in three years on new schools.

Edinburgh.—Jewish Synagogue on a site in Salisbury-rd. Cost £20,000. Plans by J. Miller, F.R.I.B.A., architect, Blythswood-sq., Glasgow.

Foleshill.—R.D.C. approved: 10 houses, Walsgrave-rd., Wyken, H. C. Weller; 12 houses, Walsgrave-rd., Wyken, J. H. Bee.

Frimley.—U.D.C. decided that convenience be provided on London-rd. recreation ground immediately behind Abbott Anderson memorial, at £609.

Gateshead.—Building scheme involving alterations to almost every elementary school in town and estimated to cost £1,500,000 announced at Gateshead.

Glasgow.—Tenders being invited for school for E.C. at Balornack. Lennox & McNath, LL.R.I.B.A., architects, 103, Bath-st.

Grimsby.—E. E. Bentley, L.R.I.B.A., 26, Victoria-st., Grimsby, preparing plans for establishment Boarding and Day school for Girls in St. Peter's Parish, for Rev. Feskens.

Halifax.—M.H. held inquiry into application of T.C. to borrow £35,500 for development Bull Green site.

Halifax.—B. of E. approved plans for Girls' High school at Craven Lodge, prepared by B.E.

Harefield.—Middlesex C.C. to invite tenders for buildings at Sanatorium, estimated at £40,000. W. T. Curtis, F.R.I.B.A., County Architect, Guildhall, S.W.1.

Hemsworth.—Hemsworth (U. and R. Districts) Joint Water Committee, proposing reservoir at Ringstone Hill, Brierley, near Wakefield. Plans in hands of J. W. Liversedge, consulting engineer, of Leeds.

Lancaster.—J. Parkinson & Sons, builders, Parliament-st., proposing 76 semi-detached houses on two new streets off Bowerham-rd. Plans by R. W. Jackson, L.R.I.B.A., 43, Church-st., Lancaster.

Leamington.—T.C. ordered £1,000 to cover cost of suitable pavilion in Victoria-park.

Leavesden.—M.A.B. recommend conversion 24 fireplaces into cupboards and bricking up 6 fireplaces in blocks 1 and 2 at Mental Hospital at £221.—Approval also given to roads from entrance gate to administrative block and to stores being repaired at £1,450.

Leeds.—Tenders be invited for banking premises for Lloyds, upon site in Woodhouse-lane. Kitson, Parish and Ledgard, architects, Vicar-lane, Leeds.—Gymnasium upon Beechgrove House site, off University-rd., for Governors of University.

Leicester.—Tenders being invited for extensions, Isolation Hospital, for City Council. Plans by Symington & Prince, A. & L.R.I.B.A., 8, Market-st.

Leicester. — British Legion headquarters in London to invite tenders for 14 homes. Site on Braunstone estate.

London (Clissold Park).—L.C.C. recommend £250 in respect of repair of wall of lake at Clissold-park.

London (Hackney).—B.C. recommend £828 for decoration and repair of houses on Casimir-rd. site.

London (Islington).—L.C.C. recommend borrowing by B.C. of £69,120 for housing purposes.

London (Lambeth).—Town Hall being repaired.

London (Putney).—M.W.B. recommend £400 for redecorations, etc., 1, Oakhill-rd., East Putney.

London (Tooting).—L.C.C. recommend £250 in respect provision increased accommodation, etc., at refreshment house on Tooting-common.

London (Wimbledon). — B.C. approved: H. Coombs & Sons, 12 houses, Toynbee-rd.; H. F. Gardner, alterations, Wimbledon Common Golf Club, Camp-rd.; A. E. Pierce, 6 houses, Copse-hill.

Lowton.—Plans been approved by B. of E. for junior school at Golborne, to cost £23,470, and alterations and extensions to existing schools. Plans by Stephen Wilkinson, F.R.I.B.A., C.A., 16, Ribblesdale-place, Preston.

Maidenhead.—T.C. approved plans for diphtheria ward at Isolation Hospital.

Manchester.—Commercial Estate, Ltd., 76, Mosley-st., 8 shops and houses on Briscoe-lane, Newton Heath.—District Bank, Ltd., Spring-gardens, acquired site, corner of Hyde-rd., Chatsworth-rd., Gorton, for bank premises. Plans by Francis Jones, F.R.I.B.A., and H. A. Dalrymple, A.R.I.B.A., architects, 178, Oxford-rd., Manchester.

Margate.—T.C. approved: alterations and additions, 98 to 104, High-st., W. R. H. Gardner; 6 houses and one garage, Hastings-av., R. A. W. Noble.

Middlesbrough.—E.C. propose 4 new school, at Longlands, Brambles, Emmerson-av. (between Linthorpe and Grove Hill), and Acklam; additions to existing buildings, Lower East-st., Marsh-rd. and Archibald schools; reconstruction of Denmark-st., Fleetham-st., Newport-rd. and Lawson schools.

Middlesbrough.—Plans for 62 houses approved by Corporation.—T.C. approved: 3 pairs semi-detached houses, Linthorpe-av., H. Waddington; alterations, Erimus hotel, Newton-st., North Eastern Breweries, Ltd.; 5 houses, Osborne-rd., W. Ward; warehouse, Nelson-st., H. B. Beckwith; 6 houses, Ayresome-st., E. T. Sweeting; alterations, business premises, 41, Albert-rd., Eagle Star and Dominion Insurance Co.; 8 houses, Grosvenor-rd., Acklam-rd., T. P. Price; 4 semi-detached houses, Arlington-rd., Thompson & Halliman; 15 houses, Wicklow-st., and 3, Leinster-rd., Middlesbrough Estate; warehouse and factory premises, Dundas-st. and Dundas-mews, Dickson & Benson, Ltd.; generator and cell rooms, Elite Picture House, Linthorpe-rd., for Proprietors.

Morecambe.—Board of Management, Queen Victoria Hospital, are to consider scheme for extensions to Institution.

Nelson.—T.C. approved: Vicar and Wardens, church, Railway-st.

Nelson.—Plans approved by B.E. for gymnasium at new Secondary school. Plans by C.A.

Newcastle-on-Tyne.—Extensions and additions proposed to premises of Rington's, Ltd., in Imeary-st. Plans by S. James Stevenson, L.R.I.B.A., 2, Saville-place.

Newlyn.—Paul Urban Council decided to approach Newlyn Harbour Commissioners with a view to joint conference to discuss construction jetty to run from Harbour-rd. to middle of harbour.—Plans proposed mortuary to be built on Old Quay at Newlyn submitted, and resolved that they be submitted to Harbour Commissioners for approval.

Newmarket. — U.D.C. approved: Hollands, Hannen & Cubitt, builders, on behalf A. de Rothschild, alterations and additions, Palace House; H. Holland, on behalf Earl of Rosebery, conversion of stables at Cleveland House into caretakers' rooms and garage.

Oldham.—T.C. approved: Governors, Royal Infirmary, extension, nurses' home. Royal Infirmary; Freeman, Hardy & Willis, business premises, Market-place; P. Cohen, shop premises, Market-place.

Oldham.—F. Thorpe, F.R.I.B.A., Union Bank-chams., to prepare scheme for alterations schools, for Trustees of Christ Church, Glodwick.

Padiham.—Local branch of St. John's Ambulance Brigade proposing ambulance hall.

Peterborough.—Plans are being prepared for further shops in Whalleys-st., for Peterborough and District Co-operative Society.

Pontefract.—Governors of King's School, Pontefract propose school buildings. Plans by County Architect, West Riding C.C.

Poole.—T.C. approved: medical block, The Shaftesbury Homes, Constitution Hill-rd., G. Hobden, for the Shaftesbury Homes; 5 pairs semi-detached houses, Alexandra-rd., Brailsford & Wood, Ltd.; 4 houses, Woodlands-av., Bartlett & Whiffen, for G. W. Bartlett; 4 dwelling-houses, Gloucester-rd., Philpotts & Manners; 4 houses, Whitecliffe-rd., S. C. Rowden, for W. F. Reest; depository, Rosemary-rd., H. Ventress, for the Pioneer Transport (Bristol); shop and stores, Ringwood-rd., Reynolds & Tomlins, for the Parkstone and Bournemouth Co.-op. Society.

Portrush.—U.D.C. under consideration scheme to spend £29,000 on constructing reservoir at Corbally.

Poulton.—It is proposed to instal reredos in Poulton Parish Church (Vicar, Rev. W. S. Mellor, M.A.).

Preston.—E.C. propose elementary schools at Frenchwood Callon House on Queen's-rd. and Holmeslack. Plans by B.S.—B.S. to report on question erecting nursery school in Lennox-st.—F. J. Parkinson, 6, Richmond-ter., Blackburn, architect for Sunday school, Eldon-st., for Trustees St. David's Protestant Church. Accommodation for 300 scholars, heating and lighting installations.

Preston.—T.C. approved:—A. Bamford, for Grange & Sons, Ltd., 20 houses, Woodplumpton-rd.; R. Crabtree, for Parkinson & Spencer, 4 houses and shops, Harewood-rd.; F. Howorth, for H. Basterfield, 7 houses, Meath-rd.; G. E. Bolshaw, additional story, Corporation-st.; H. Heaton & Son, for T. Varley, warehouse, Greenbank-st.

Reading.—T.C. approved 237 houses.—Council to have painting done to 300 houses on various sites. Council approved proposal of E.C. to provide additional accommodation at Shinfield-rd. Council school, at £7,000.—Governors of Reading School desire to proceed with sections 1 and 2 of their scheme for providing additional accommodation, at £25,000.

Rotherham.—T.C. approved eight pairs of non-parlour type houses on Herringthorpe estate. Tenders to be asked for 440 houses on same estate.

Rotherham.—Roman Catholic Society propose church on site at Denaby Main, Rotherham. Holton & Fox, architects, Corporation-st., Dewsbury.

* See also our List of Contracts, Competitions, etc.

Rothwell.—E.C. propose Sunday school for 350 girls and 350 boys.

Rugby. — R.D.C. considering various housing schemes.—Plans passed: Millfield estate (Rugby), Ltd., six houses, plots 58, 59, and 60, Kingsley-av., Hillmorton.

Salford.—City Council propose to borrow £26,700 for branch library on land at south-easterly junction of Liverpool-st. and Langworthy-rd., Seedley.

Scarborough.—E.C. decided to acquire site from Scarborough United Brick Works, Ltd., on Seamer-rd., for school.

Sheffield.—T.C. approved: 14 houses, West Quadrant and Hucklow-rds., Church Army Housing, Ltd.; 14 houses, Chesterfield-rd., Douglas Haig Memorial Homes; 6 houses, and alterations, Roxton-rd. and Strelley-av., J. Marsh.

Sheffield.—Adrian Gilbert Scott, F.R.I.B.A., 7, Gray's Inn-sq., W.C.1, architect for church in parish of Our Lady and St. Thomas', at Woodseats, for Rev. J. B. Rooney.

Shipley.—T.C. approved: 12 houses, Leeds-rd., Mellor & Booth.

Sidmouth.—Rev. C. K. Woollcombe appealing for funds for new church.

South Mimms.—R.D.C. decided to erect pumping station. Plans by John Taylor & Sons, Caxton House, Westminster, S.W.1.

South Shields.—Housing Committee decided to advertise for tenders for 11 additional houses at Cleadon Park, and B.E. to submit estimate for direct labour.

St. Helens.—T.C. approved: 4 houses, Thatto Heath-rd., T. Ashcroft; 4 houses and shops, Blackbrook-rd., Callon Bros.

St. Helen's.—Plans approved for Sunday school in Clipsley-lane, Haydock, to provide accommodation for 720 scholars, at £36,000. Plans by C. A Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

St. Ives.—R.D.C. to build 12 houses at Warboys.

Stamford.—T.C propose 56 additional houses on Northfields housing estate. Plans by B.S.

Stoke-on-Trent.—E C. to erect two elementary schools in parishes of Kidsgrove, Hardingwood and Audley. Education Architect is Colonel Lowbridge, Education Offices, Stafford.

Stoke-on-Trent.—Corporation propose extensions, maternity home, at £35,000. Amos Burton, A.M.I.C.E., Town Hall Glebe-st.

Stretford.—U.D.C. approved plans and submitted to B. of E., for practical room for girls, Gorse Hill Council school No. 3, at £935; and extension of practical subjects centre at Stretford Victoria-park Council school No. 12, etc.—Plans passed: 14 houses, Westwood-rd., Howard & Waring; 4 houses, Ruskin-rd., Smith & Allcock, Ltd.; 4 houses, Seymour-grove, Smith & Allcock, Ltd.; 9 houses, Stothard & Manor-rd., H. Hampson & Co.; dyehouse extension, Textilose-rd., English Textilose Manufacturing Co., Ltd.; alterations to warehouse, Third-av., Trafford Park Estates, Ltd.

Sunderland.—Corporation Libraries Committee approved branch library at Southwick, at £5,920.

Sunderland.—T.C. shortly to consider mental hospital at Ryhope, at £269,200.

Twickenham.—Plans passed by T.C.: E. Simmonds, 18 houses, Nelson-rd.; Brewer, Smith & Brewer, 11 houses, Whitton-rd. and Orchard Cottage estate; H. L. Moyle, 15 garages, Orford Paddocks, Pope's-grove; Merritts (Contractors), Ltd., 8 shops with living accommodation and 13 garages and office, Heath-rd.—T.C. approved plans by A. Pascall & Sons, in respect of 118 houses on Altongardens estate, Whitton.—T.C. approved plans prepared by Simmons & Grellier, architects, for development Redway estate at Whitton, by 800 houses, and numerous shops, by G. T. Crouch.

Tyrone.—C.C. to spend £1,350 on swing bridge at Sion Mills, and also to erect temporary bridges at Trinamadam, Gortin and Killymore.

Wakefield.—City Council propose underground conveniences in The Bullring, at £3,100

Wallasey.—Finance Committee recommend that Moreton Rectory be bought and alterations be carried out at £650.

Wallasey.—Directors, Poulton-rd. billiards hall decided to convert premises for skating and dancing. There will be accommodation for 700 persons.

Wallington.—U.D.C. approved: 41 houses, Headley-av., T. Markwick & Co

Wallsend.—E.C. proposes school in Buddle district.

Walton.—M.W.B. recommend £600 for heating at pumping station.

Wembley.—Provision to be made by U.D.C. in scheme for open-air swimming bath at Sudbury, for water to be warmed.

Weybridge.—Housing Committee reported considered lay-out plan prepared by S., for 18 houses on remaining land on housing estate.

Whitby.—U.D.C. received sanction from M.H to borrow £755 for fire station.

Wirral.—F. G. Wallis, The Cottage, Eastham Rake, Eastham, near Birkenhead, architect for cafe and house at Thurstaston, for Mrs. J. W. Simpson, Grey House, Grange, Hoylake.

Wollaston.—R.D.C. approved 12 houses.

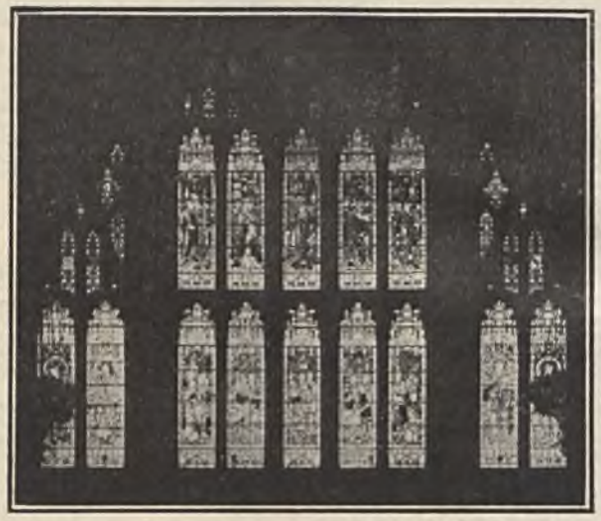
Workington.—W. C. Ralph & Sons, King-st., Wigan, been appointed architects for Central school, to accommodate 650 scholars, for Corporation.

York.—T.C. approved: J. Dowling, 4 houses, Cornborough-av.; R. J. Pulleyn & Sons, 4 houses, Grange-garth; Harrowell & Agar, 4 houses, Kilburn-rd.; Shell-Mex, Ltd., depot, Castle Mills-wharf; John Smith's Tadcaster Brewery Co., additions, Elephant & Castle, Skeldergate; Marks & Spencer, alterations, Parliament-st.

TRADE NEWS

Floodlighting of Stained-glass Windows.

Our illustration is of the east window of the Guildhall, which, together with several other similar windows, was floodlighted on the occasion of the recent Lord Mayor's banquet. The beauty of these handsome stained-glass windows has never hitherto been revealed by electrical illumination after nightfall. It was recently decided to install a number of G.E.C. floodlights equipped with Osram lamps mounted on special supports outside each window, so arranged that the beauties of these historic windows should contribute towards the enrichment of the surroundings when Mayoral and other City functions were being held. Architects to cathedrals and churches may be interested in the possibilities of the scheme.



East Window, Guildhall, E.C. : Floodlit.

Cure of Damp in Buildings.

Some weeks ago we described a new system of aeration of buildings, the Knapen system of differential aeration. We have now received some details of the Knapen system of curing dampness in buildings. The results of dampness in buildings and the adverse effects on the dwellers are well known. Chief causes of damp are (1) moisture brought in by the materials; (2) condensation moisture; (3) absorption or infiltration moisture; and (4) capillarity moisture. The Knapen system, we learn, effects the complete removal of water from the wall by natural means. The operative part of the system consists of a number of porous tubes or siphons which are sealed in the walls at certain intervals, and at an angle of inclination. The tubes have five angles on the outside, acting as hygrometric centres and encourage the deposition of water, while the inside is ribbed, to expose as large a surface to the air as possible. Now, air always contains a certain percentage of moisture, the proportion of which is governed by the temperature at the time. Warm air can support a larger quantity of moisture than cold air, and when it can absorb no more it is said to be "saturated." Should the temperature fall ever so little when this condition is reached, the suspended moisture is deposited on the ground in the shape of rain or dew. This is the "dew point." It is the capacity of the air for absorbing moisture on which the Knapen system is based.

When damp rises from the ground and penetrates into the walls it is attracted and absorbed by the Knapen patent atmospheric siphon, and, soaking through to the interior, is evaporated by the external atmosphere. A continuous circulation of air is maintained in the tube so long as there is any moisture to be evaporated. No attention is needed, as the operation is quite automatic. In ordinary weather the average damp wall can be completely dried out by this means in a few weeks, and the circulation of air then ceases. Immediately any moisture rises in the wall, however, the circulation commences again, and the wall is kept continually dry. A single siphon will evaporate in this way a considerable quantity of water in a month, so we learn, the motive power being provided solely by the presence of moisture. Details may be obtained from the British Knapen, Ltd., of Drayton House, 30, Gordon-street, W.C.1.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

ARTHUR G. GOODCHILD & SONS, LTD. (243,659). Registered November 8. Contractors, builders and decorators. 36a, Queen's-road, Bayswater, W.2. Nominal capital, £6,000.

H. BIRKBY & SONS, LTD. (243,680). Registered November 9. Storr Hill Brickworks, Wilson-road, Wyke. Brickmakers, general contractors and builders' merchants. Nominal capital, £2,000.

PENTIRE HOTEL (NEWQUAY), LTD. (243,651). Registered November 6. 69, Bridge-street, Manchester. Purchase land at Pentire, Newquay, to erect hotels, etc. Nominal capital, £10,000.

METHUEN ESTATES, LTD. (243,701). Registered November 11. Builders, etc. Nominal capital, £250. C. D. Allflatt, Acacia Lodge, South Wootton.

SMITH BROS. (NETHERAVON), LTD. (243,707). Registered November 11. Builder and contractor, etc. Netheravon, Wilts. Nominal capital, £10,000.

DYER CO. (F.2849). Registered November 12 50, Pall Mall, S.W.1. Incorpd. in the State of Ohio, U.S.A. Contractors, builders, mechanical, chemical and civil engineers, etc. Nominal capital, 300,000 dollars.

FAIREST & Co., LTD. (243,810). Regd. November 18. Civil, marine, railway and constructional and general engineers, etc. M Fairest, 141, Worrall-road, Sheffield. Nominal capital, £250.

VINE & WRIGHT, LTD. (243,796). Regd. November 16. 13, Victoria-street, Westminster. Tiling and roofing contractors and builders' merchants. Nominal capital, £100.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster ...	2 14 3	Do. Bullnose ...	9 15 0
Do., Bullnose...	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ...	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers...	26 10 0
		One Side and two Ends ...	30 10 0
Headers	20 10 0	Two Sides and one End	31 10 0
Quoins, Bull-nose and 4½ in. Splays, and Flats	27 10 0	Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS

Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. ,, ,,	2 4	4 in. ,, ,,	3 6

	s. d.		
Thames Ballast	9 9	per yd.	delivered 2 miles radius Paddington.
Pit Sand	12 0	,, ,,	
Thames Sand	12 6	,, ,,	
Best Washed Sand.....	12 6	,, ,,	
¾ in. Shingle for Ferro-Concrete	12 0	,, ,,	
½ in.	12 6	,, ,,	
¾ in. Broken Brick.....	11 6	,, ,,	
Pan Breeze	8 0	,, ,,	

Per ton delivered in London area in full van loads. Best Portland Cement. British.

Standard Specification. Test £2 6 0 to £2 8 0 30s. alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 7 6
Vitrocrete ,, ,, ...	0 7 6
Super Cement (Waterproof)	3 16 0
Roman Cement	8 15 0
Parian Cement.....	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink.....	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 0
,, Finish	3 17 0
Grey Stone Lime.....	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d., if returned in good condition within three months' carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 10

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station per ft. cube 2 3

Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½

Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE.—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4½

Do. do. delivered on road wagons at above stations, per ft. cube..... 4 5½

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire,	
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides ..... ,,	22 6
Sawn three or four sides ..... ,,	27 6

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super)..... Per ft. super	5 6
6 in. rubbed two sides, ditto ..... ,,	6 0
3 in. sawn two sides slabs (random sizes) ,,	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,,	1 6½
1½ in. to 2 in. ditto, ditto ..... ,,	1 3½

HARD YORK—

Delivered at any Goods Station, London.

Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6 in. rubbed two sides, ditto ..... ,,	6 1½
4 in. sawn two sides slabs (random sizes) ,,	2 1½
3 in. ditto ditto ,,	2 10
2 in. self-faced random flags.....Per yd. super	8 8

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	26 0
4 × 7	23 0	3 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½.....	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1 × 11	£30 0	1 × 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
¾.....	18/-	1¼.....	30/-
1.....	21/-	1½.....	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	24/-
1¼.....	30/-
1½.....	34/-

Ins. BATTENS. s. d.

¾ × 2.....per 100 ft. 2 6

MATCHING (BEST).

Inches.	per sq.
⅝.....	16/6
¾.....	19/-
1	24/-

SAWN LATHS. s. d.

Per bundle 2 6

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16 0	to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube.....	0 14 0	to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube.....	0 15 0	to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube.....	0 16 0	to 1 1 0
Dry Cuba Mahogany, ft. cube...	1 1 0	to 1 10 0
Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 14 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.....	£5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
,, Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ⅞ in.	10 15 0
¾ in.	11 0 0	1 in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas.....	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock Branches, angles.	stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. ,, ...	1/3	10½d.	1/4½
3 in. ,, ...	1/6½	1/1½	1/8½
3½ in.	1/11	1/4½	1/11½
4 in. ,, ...	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5 from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Bends, stock Branches, Pipe, angles.	stock angles.
	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9
2½ in. ,,	2 9½	1 10½
3 in. ,,	3 0	2 1
3½ in. ,,	3 3	2 7
4 in. ,,	3 8	2 11

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Bends, stock Branches. Pipe, angles, stock angles.		
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. ,, ,,	4 8	5 5	9 3
5 in. ,, ,,	6 3	9 6	15 0
6 in. ,, ,,	7 3	11 6	19 0

Gasken for jointing, 41/- per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON— Common bars.....	11 0 0	to	12 0 0
Staffordshire Crown Bars— Good merchant quality	11 10 0	to	12 10 0
Staffordshire Marked Bars.....	14 0 0	...	15 0 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	11 10 0	...	12 10 0
,, Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g....	13 0 0	...	14 0 0
,, ,, ,, 24 g....	14 0 0	...	15 0 0
,, ,, ,, 26 g....	16 0 0	...	17 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g....	18 0 0	...	20 0 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	16 10 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	17 0 0	...	18 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	20 0 0	...	21 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, 3 in. to 6 in.....	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	30 5 0
Pipe in coils	30 15 0
Soil pipe	33 15 0
Compo pipe	34 15 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	20 0 0

COPPER.

		s. d.
Seamless Copper tubes (basis).....	per lb.	1 3
Strong sheet	,,	1 0
Thin.....	,,	1 1
Copper nails	,,	1 11
Copper wire	,,	2 0

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.

29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.

41/6 62/- 92/- 174/- 300/- 588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in. ¾ in. 1 in.

30/6 60/- 116/6 per doz.

CAPS AND SCREWS.

1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.

7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.

7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.

1¼ in. 2 in. 3 in. 3½ in. 4 in.

10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in. ¾ in. 1 in. 1¼ in. 1½ in.

35/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in. 1½ in. 2 in. 3 in.

8 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.

8 lbs. S. traps ... 35/- 45/- 66/- 126/- ,,

TIN.—English Ingots, 2/3 per lb. SOLDER.—Plumber's 1/-. Tinmen's 1/2, Blowpipe 1/3 per lb.

PAINTS, &c.

			s. d.
Raw Linseed Oil, in pipes	per gallon		0 4 2
,, ,, ,,	in barrels ...	,,	0 4 4
,, ,, ,,	in drums ...	,,	0 4 6
Boiled ,, ,,	in barrels ...	,,	0 4 6
,, ,, ,,	in drums ...	,,	0 4 9
Turpentine in barrels		,,	0 3 10
,, in drums (10 galls)		,,	0 4 0
Genuine Ground English White Lead, per ton			54 0 0

(In not less than 5-cwt. casks.)

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

		£	s.	d.
GENUINE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J." Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots ... per ton delivered		73	10	0
Red Lead, Dry (packages extra)	per ton	40	0	0
Best Linseed Oil Putty	per cwt.	0	15	6
Filicol	,,	0	15	6
Size. XD quality	fkn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	32 oz. fourths ...	6½d.
15 ,, thirds ...	3½d.	32 ,, thirds ...	9d
21 ,, fourths ...	3½d.	Obscured Sheet, 15 oz.	3½d.
21 ,, thirds ...	4½d.	,, ,, 21 oz.	4½d.
26 ,, fourths ...	4½d.	Fluted, 15oz. 6½d.,21oz.	9d.
26 ,, thirds ...	6½d.	En'lled,15oz. 4½d.,21oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White...	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinned do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *office not later than Tuesday evening.*

Aberdeen.—EXTENSIONS.—A school extension scheme, to cost £11,900, has been approved by the Governors of the Robert Gordon's Colleges.

Alloa.—BRIDGE.—A meeting has been held at Alloa of the various local authorities interested in the proposed erection of a bridge over the River Forth at Alloa.

Dunfermline.—ROADS.—The Earl of Elgin, Convener of Dunfermline District Roads Committee, has reported that the Ministry of Transport has approved of the full grants being paid in respect of approved road improvement schemes in the area, estimated to cost £195,000.

Glasgow.—SCHOOL.—A new school is to be erected at North Carntyne, for the Glasgow Education Authority. Tenders are being invited.

North Berwick.—HOUSES.—Tenders are being invited for the erection of 16 houses at Lochbridge. Mr. A. Robertson, Burgh Surveyor, has prepared the plans.

Spey.—BRIDGE.—The Moray Road Board has agreed to accept an estimate of £42,000 for the erection of a new bridge across the Spey near Grantown.

The Italian Apennines Tunnel.

The Under-Secretaries of Labour, of Public Works, and of Communications were present on December 4 when the last partition dividing the two arms of the new great tunnel under the Apennines was penetrated. This tunnel is on the direct line between Bologna and Florence, and is 18,150 metres long (about 11¼ miles), the longest in the world with double tracks

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 1029.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Accrington.—48 houses on the HoHins estate, adjoining Robert Nuttall-street, for the T.C. Mr. H. Sanderson, Borough Engineer:—

*H. Treckett & Son, Ltd., Turton Hollow, Crawshawbooth, Rosendale, Lancs	£17,700 17 3

Altofts.—Extensions to the Lee Brig Club, for the Committee. Messrs. Newbald & Hartley, architects, Crown-court, Wakefield:—

*R. Leake & Sons, Normanton.	

Bangor.—Transformer station, for the T.C.:—

*R. D. Pollock & Co., Ltd.	£2,455

Bolton.—Baths and wash-houses in Rothwell-street, for the Corporation. Mr. W. Russell Brown, Borough Surveyor:—

*Wm. Burrows & Sons, Bolton	£13,000

Clacton.—Warehouse in Beach-road:—

H. Potter, Chelmsford	£4,600 0
H. Land & Son	4,368 0
C. H. Jones, Frinton	4,224 4
C. H. Coe & Son	4,086 11
G. H. Carter, Ltd.	4,016 19
Field & Son	3,943 0
Canler & Sons	3,899 0
H. Smith & Sons	3,795 0
H. Blakelock	3,590 0
*Evans & Nunn, Ltd., London-road, Clacton	3,578 0

Doncaster.—Adaptation of Christ Church schools, for the C.B. Mr. R. E. Ford, Estates Surveyor, 3, Priory-place:—

*G. T. Farrow, Kirk-street, Hexthorpe, Doncaster	£2,017 17 11

Donegall.—4 houses at Ballyshannon, Co. Donegal, for the Irish Sailors' and Soldiers' Land Trust. Mr. W. J. Brown, F.R.I.B.A., architect, 30, Upper Mount-street, Dublin:—

*Thos. McDonald & Sons, Castle-road, Dundalk	£2,497 11 10

Dublin.—Electric wiring of 421 houses on the Donnycarney area, for the C.B.:—

*Dublin Electricity Department	£5,828 7

Dublin.—Painting the fishmarket, for the City Commissioners:—

*T. Higgins & Sons	£370

Dundalk.—Extension of the Dundalk water supply, for the U.D.C. Mr. M. Sellars, Town Surveyor and Waterworks Engineer:—

R. Colhoun, Londonderry, Ireland	£2,878 19 0
T. McDonald, Dundalk, Ireland	2,809 2 6
Lee Bros., Arklow, Ireland	2,325 19 7
P. Henry, Co. Mayo, Ireland	2,100 4 6
Gaskin Bros., Dundalk, Ireland	1,991 15 6
*Fleming Bros, Dublin, Ireland	1,849 7 6

Dunmow.—48 houses, for the R.D.C. Mr. J. Plumbley, Sanitary Surveyor, 58, New-street:—

1 at Dunmow—	
*T. A. Goodey, Dunmow	£4,300
10 at Dunmow—	
*T. Harris, Dunmow	3,400
6 at Dunmow—	
F. H. Stewart, Dunmow	2,010
4 at Gt. Bardfield—	
*E. H. Pring, Little Saling	1,300
4 at High Roding—	
*Alfred Clarke (Bishop's Stortford), Ltd., Bishop's Stortford	1,281
4 at Hatfield Broad Oak—	
*H. E. Uncle, Sheering, Harlow	1,280
4 at White Roding—	
*Alfred Clarke (Bishop's Stortford), Ltd., Bishop's Stortford	1,274
2 at Little Easton—	
*D. King, 19, Bell's-hill, Bishop's Stortford	648

East Malling.—8 cottages at Lunsford-lane, for the R.D.C.:—

*L. Thorpe, Southborough	£3,024

Edinburgh.—Installation of electric lighting and power in one block of 12 houses and 8 shops at Prestonfield shopping centre, for the Corporation:—

*J. G. Mackintosh, Edinburgh	£174 19 6

Hamptworth.—Reconstruction of Hamptworth gutter bridge on the Redlynch-Landford-road, for the Wilts C.C. Mr. H. S. Ganderton, County Surveyor, County Offices, Trowbridge:—

‡E. Ireland, Bath.	

Horsforth.—Five houses on the Low-lane site, for the U.D.C.:—

*Huby Bros.	£1,467 10

Continued on page 1038.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	,, ,,	7	0
Add if in floors 6 in. thick	,, ,,	3	3
Add if in beams	,, ,,	3	9
Add if aggregate 1 : 2 : 4	,, ,,	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	,,	7	10	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	,,	0	3

ARCHES.

		s.	d.
Extra only to the prices of ordinary brickwork :—			
Fair external in half brick rings	,, ,,	0	10
Axed in stocks	,, ,,	1	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	1	0
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	,,	80	9
Do. 24 in. × 12 in. Do. Do.	,,	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	,, ,,	5	6
Do. roofs, floors and partitions	,, ,,	6	0
Do. trusses	,, ,,	8	6

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Fl t centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	,,	—	49/-	57/6	65/-
Do. matchings	,,	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Dc.	,, ,,	2	1
Add for fitting and fixing	,, ,,	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	,, ,,	3	9

DOORS.

		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	,,	2/5	2/8	2/11
Two-panel moulded both sides	,,	2/8	2/11	3/2
Four-panel Do. Do.	,,	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bea ers	,,	1/4	1/6	1/9
Add if cross-tongued	,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	,, ,,	6	0
Add if ramped	,, ,,	12	0
Add if wreathed	,, ,,	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	,,	19	0
Do. stanchions	,,	21	9
In roofwork	,,	27	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	,,	1/9	2/-	2/6	3/3
Rain-water pipes with ears	,,	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	,,	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	,,	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	,,	43	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	,, ,,	1	3
Copper nailing	,, ,,	0	3

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service ,,	1/8	2/2	2/7	3/10	—	—
Do. soil ,,	—	—	—	—	—	6/9
Bends in lead pipe each	—	—	—	—	3/3	8/2
Soldered stop ends ,,	1/2	1/8	2/1	2/10	3/6	—
Red lead joints ,,	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints ,,	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws ,,	—	—	—	14/7	19/6	—
Bib cocks and joints ,,	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints ,,	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	,, ,,	2	9
Do. Do. Keen's	,, ,,	4	0
Add saw lathing	,, ,,	1	7
Add metal lathing	,, ,,	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	,, ,,	2	2
Do. plain face	,, ,,	3	3
Mouldings in plaster	per l girth	0	1¼
One-and-a-half granolithic paving	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	,, ,,	1	0
Obscured sheet	,, ,,	1	1
⅛-in. rolled plate	,, ,,	0	9
¼ in. rough rolled or cast plate	,, ,,	0	10½
¼-in. wired cast plate	,, ,,	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance.

Continued from page 1036

Hull.—Painting at certain domestic centres, for the E.C.:—

Constable-street—*G. Butterwick.
Newland-avenue (laundry)—*Crawford & Co.
Brunswick-avenue—*C. S. Drury & Sons.
Middleton-street—*C. S. Drury & Sons.
Newland-avenue (cooking)—*C. S. Drury & Sons.
Charterhouse-lane—*F. A. Wells.
Westbourne-street—*F. A. Wells.
Wheeler-street—*City Engineer.
(All of Hull.)

Hull.—Painting certain schools, for the E.C. Mr. R. C. Moore, Director of Education:—

Northumberland-avenue junior—*R. Bailey & Son.
Day-street—*T. W. Bailey & Sons.
Sculcoates St. Paul's—*T. W. Bailey & Sons.
Marfleet—*A. Christopher.
Hebrew—*Moody & Sons.
Francis Askew—*City Engineer.

Inverurie.—Various works for four houses on the housing site, for the T.C. Burgh Engineer:—

Mason—
*J. Duncan & Son, St. James-place, Inverurie £630 0
Joiner—
*J. R. Craig, Kinton 338 10
Plumber—
*J. Laing & Son, High-street, Inverurie 167 15
Plaster—
*Paul McPherson, Martin-place, Inverurie 104 0
Slater—
*W. J. C. Eddie, Fyvie 132 0
(There are six blocks of four houses and one block of two houses in the full scheme.)

Keighley.—Dairy at the Woodhouse Farm, for the Corporation. Mr. E. G. Felgate, A.R.I.B.A., Borough Architect:—

*Hird & Waddington, Keighley.

Lancaster.—Two shops on the Mount Pleasant Estate, Halton-road, for the Corporation. Mr. F. Hill, Borough Surveyor:—

*T. Latham, Lancaster.

Lancaster.—Six pairs of semi-detached houses, Bowerham, for Messrs. J. Parkinson & Sons. Mr. R. W. Jackson, L.R.I.B.A., chartered architect, 43, Church-street:—

Masons—*Johnson & Bradley, Lancaster.
Slaters and Plasterers—*T. Cross & Sons, Lancaster.
Plumber and Glazier—*G. H Blatchford, Lancaster.
Joiners—*J. Parkinson & Sons.

Leeds.—Extensions and alterations at the Herzel Mozer Jewish Hospital in Leopold-street. Messrs. G. F. Bowman & Son, architects:—

Main Contract—*Wm. Gott & Son.
Asphalter—*Tunstalls Rock Asphalting Co., Ltd.

Limerick.—Alterations to shed to be used for installation of cold storage plant, for the Harbour Board:—

M. Doyle £679
P. Molloy 649
*J. Kenny & Sons 645

Little Lever.—26 houses on the housing estate, for the U.D.C. Mr. J. R. Butler, surveyor:—

*G. & J. Seddon, Ltd., Little Hulton, nr. Bolton.

Liverpool.—Conversion of "Eddesbury Lodge," West Derby, into open-air day special school, for the T.C. Mr. A. D. Jenkins, Land Steward and Surveyor. Quantities by Mr. J. D. Morton, Weltington-buildings, The Strand, Liverpool:—

*S. Powell & Son, Ltd., 39, Rose-place, Liverpool.

London.—Steelwork for electricity sub-station in Eltham High-street, for the Woolwich B.C.:—

*Fleming Brothers, Glasgow £887 10

¶**London.**—The following works contracts have been placed by the War Office during the week ended December 5:—

Tidworth—isolation hospital—W. E. Chivers & Sons, Ltd., Devizes.
Fort George, Inverness-shire—alterations to power station—W. Tawse, Ltd., Angusfield, Aberdeen.
Glasgow, Maryhill Barracks—alterations and additions to Regimental Institute—J. Baxter & Sons, Ltd., Glasgow
Okehampton Camp—single officers' quarters—W. J. Avery, Okehampton.
Okehampton Camp—barrack store—W. J. Avery, Okehampton.
Tidworth, Jellalabad Barracks—enlargement of recreation establishment—Wise & Lansdell, Ltd., Winchester.
Bulford—external services to Group V. Quarters at Sling—W. E Chivers & Sons, Ltd., Devizes.
Catterick, Baghdad Lines—clothing store—A. H. Earnshaw, Darlington.
Catterick—reconstruct buildings to form barrack expense store—A. Metcalf & Sons, Shildon, Co. Durham.
Catterick, Marne Lines—additional office and store accommodation for R.A.—H. Coxhead & Co., Middlesbrough.
Derby—artificers' work—J. H. Fryer, Derby.
Lincoln—bath house block—E Oxley & Son, Sheffield.

London.—Re-decorations at 62, Kensal-road, Paddington, for the M.W.B.:—

Collins & Co. £177
J. Myring & Co. 159
W. Chapman & Sons 157
*I. White & Co. 110

London.—Re-construction of coal bays at Stoke Newington works, for the M.W.B.:—

W. Young & Son £6,259 18 6
Howard Farrow, Ltd. 4,144 0 3
The Demolition & Construction Co., Ltd. 3,875 5 9
R. J. Rowley, Ltd. 3,835 0 0
W. T. Ricketts & Sons, Ltd. ... 3,750 10 0
George Henry Dibbin 3,728 0 0
Callow & Wright, Ltd. 3,718 14 0
Roads & Public Works, Ltd. ... 3,690 2 10
F. Troy & Co., Ltd. 3,543 12 6
Whittaker Ellis, Ltd. 3,510 9 3
Commercial Structures, Ltd. ... 3,496 0 0
Rigg & Remington, Ltd. 3,132 5 8
*D. G. Somerville & Co., Ltd. ... 3,131 12 0

London.—Three oil engines driving reciprocating pumps, including oil storage tanks, connections to mains and alterations to buildings at the pumping station, for the M.W.B.:—

		After correction.
S. E. Moss & Sons...	£18,000 0 ...	——
H. Lacey & Son ...	17,300 17 ...	——
Arbro, Ltd.	16,983 0 ...	——
Foster & Dicksee, Ltd.	16,970 0 ...	——
E. A. Russell, Ltd.	16,629 0 ...	——
H. C. Horswill, Ltd.	16,282 0 ...	——
J. Dennis	16,245 9 ...	——
Charles S. Foster & Sons	16,008 0 ...	——
Hammond & Miles, Ltd.	15,994 14 ...	——
A. E. Symes, Ltd. ...	15,942 3 ...	——
J. E. Billings & Co., Ltd.	15,919 0 ...	——
J. & J. Dean	15,710 0 ...	——
Wood Bros. (Builders), Ltd. ...	15,378 0 ...	——
Wm. Moss & Sons, Ltd.	15,190 5 ...	——
T. & R. Muirhead, Ltd.	15,053 10 ...	——
Kind & Co.	14,997 7 ...	£15,000 9
J. Gowers	14,753 15 ...	14,753 15
F. R. Hipperson & Son	14,218 18 ...	*14,229 4

London.—Re-decoration, etc., at 130, 134 and 134a, at Shakespeare-road, Acton, W.3, for the M.W.B.:—

W. H. T. Kelland & Sons, Ltd. £594
Sidey & Harvey 575
James Webb & Son 540
*Arbro, Ltd. 505

¶**London.**—The following contracts over £500 in value have been entered into by H.M.O.W. for week ending November 30:—

Havant District—ordinary works and repairs—Rogers Brothers, Park-road, Havant.
Ilkeston Employment Exchange—erection of—R. Hustwayte, Haydn-road, Sherwood.
Aberdeen District—excavators', masons' and bricklayers' work—R. S. Pringle, 296, Hardgate, Aberdeen.
Falmouth District—ordinary works and repairs—G. Wakeham & Son, Gyllyng-street, Falmouth.
Warrington District—ordinary works and repairs—J. Broadhurst, Arpley-road, Warrington.
Chesterfield District—ordinary works and repairs—G. F. Kirk, Ltd., The Depot, Chatsworth-road, Chesterfield.
Stafford District—ordinary works and repairs—J. Pemberton, Wolverhampton-road, Stafford.
Crewe District—ordinary works and repairs—J. Williams & Sons, Central Saw Mills, Oakley-street, Crewe.
St. Helens Sorting Office and Telephone Exchange—heating apparatus—The Brightside Foundry & Engineering Co., Ltd., 242, Upper Parliament-street, Liverpool.
Westminster, S.W. Government Office (Southern Block)—external decoration works—Sykes & Son, Ltd., 10, Essex-street, Strand, W.C.2.
Hereford District—ordinary works and repairs—E. W. Wilks & Son, Ltd., West End-works, Hereford.
Stirling District—painters' work—J. C. Cooper, 108, Cadzow-street, Hamilton.
Wrexham District—ordinary works and repairs—W. E. Samuel, Brookside-works, Bridge-street, Wrexham.
Bishopwearmouth Telephone Exchange—erection of—Randle & Co., Ltd., Cedric Joinery-works, Sunderland.
Glasgow District—painters work—The Cosmo Decorators, 130, Coburg-street, Glasgow, C.5.
East Boldon Telephone Exchange—erection of—A. Anderson, Serogg-road, Walker estate, Newcastle-on-Tyne.

London.—Provision of sanitary accommodation in block H 2, at the South Western Hospital, for the M.A.B.:—

H. King & Son (Peckham), Ltd. ... £366 10
G. W. D. Brown 269 14
White & Johnson, Ltd. 265 0
F. E. Smith, Grays 220 10
Thomas Carrington & Co., Ltd. 186 0
L. Kazak & Co. 185 0
*A. H. Inns, Ltd., Fox-court, Holborn, E.C. 178 0
(All of London.)

London.—Verandah, etc., to Poplars cottages 5 and 6, at High Wood Hospital for Children, for the M.A.B.:—

C. H. Boyd & Son, Ltd., London £1,681 0
F. E. Smith, Grays 1,053 0
J. W. Powell & Sons, Brentwood... 722 17

London.—Bathrooms for wards 1a and 3a, at the Colindale Hospital, for the M.A.B.:—

Buckingham & Sons, London £385 0
King & Stannard, London 359 6
*L. Kazak & Co., 573, Finchley-road, Hampstead, N.W. 357 10

London.—Alterations at the Central Stores, for the M.A.B.:—

W. Bickerton £4,875 0
Thomas Carrington & Co., Ltd., Beckenham 4,000 0
H. King & Son (Peckham), Ltd.... 3,953 0
G. H. Dibblin, Dartford 3,943 0
White & Johnson, Ltd. 3,700 0
A. H. Inns, Ltd. 3,700 0
C. H. Boyd & Son 3,632 0
F. E. Smith, Grays 3,627 17
Bridge & Co. 3,589 0
W. J. Dixon & Sons 3,487 0
W. Mills & Sons (Builders and Contractors), Ltd. 3,460 0
*J. Marsland & Sons, Ltd., 56, South Molton-street, W 3,296 0
(Remainder of London.)

London.—Schoolkeeper's house at Rolls-road Council school, for the L.C.C.:—

J. & C. Bowyer, Ltd. £927
W. J. Dixon & Sons 897
T. Brown & Son 883
*Triggs & Co., Ltd., Lambourn-works, Mackay-road, S.W 4 827
Architect's estimate 895

London.—Dressing cubicles and the provision of shower baths at the open-air swimming baths at Peckham Rye and Highbury-fields, for the L.C.C.:—

Peckham Rye—
Marchant, Hirst & Co. £1.695
Harrison Smith Buildings, Ltd., Birmingham 1,598
Whitbys, Ltd. 1,590
W. Bickerton 1,473
T. Brown & Son 1.448
W. J. Dixon & Sons 1,447
Triggs & Co., Ltd. 1,265
*H. Somerford & Son, Ltd., Clapham 1,231
Highbury-fields—
Marchant, Hirst & Co. £1,600
Whitbys, Ltd. 1.545
W. Bickerton 1,498
Harrison Smith Buildings, Ltd., Birmingham 1.495
T. Brown & Son 1,436
W. J. Dixon & Sons 1,397
Triggs and Co. Ltd. 1,215
*H. Somerford & Son, Ltd,. Clapham 1,171

London.—Central school on the Wormholt-park estate, for the L.C.C.:—

G. E. Wallis & Sons, Ltd., Maidstone £19,729
R. Dixon & Sons 19.261
F. Troy & Co., Ltd. 19,030
Prestige & Co., Ltd. 18,997
C. Godson & Sons, Ltd. 18,759
J. & C. Bowyer, Ltd. 18,574
Galbraith Bros., Ltd. 18,495
Allen Fairhead & Sons, Ltd. 18,444
R. J. Rowley, Ltd. ..... †18,408
John Garrett & Son, Ltd. 18,271
W. H. Gaze & Sons, Ltd. 18,153
J. E. Billings & Co., Ltd. 17,992
*Albert Monk, Lower Edmonton, N.9 17,950
†Alternative price for inclusion of certain British Empire materials, £18.658.
(All of London.)

London.—New building for the staff at the cleansing depot at Lett's Wharf, for the City Corporation:—

F. G. Minter, Ltd. £7,370
F. J. Howard 7,055
Trollope & Colls, Ltd. 6,994
Sabey & Son 6,993
Walter Lawrence & Son, Ltd. 6.972
Ashby & Horner, Ltd. 6,959
Rice & Son, Ltd. 6.886
L. & W. Whitehead, Ltd. 6.875
*Hall, Beddall & Co., Ltd. 6,544

London.—Provision of electric lighting at the church chapel, crematorium etc., at the City of London Cemetery, for the City Corporation:—

Electrical Installations, Ltd. £596 14
Pinching & Walton 588 10
*W. J. Furse & Co. (London), Ltd. 563 0

London.—34 tenements on the Wedgwood House site, Lambeth, for the L.C.C.:—

	£	British Material. £	Excess of B over A. £
Joseph W. Trudgett, Colchester	27,750 ...	27.750 ...	Nil
R. Dixon & Sons.....	22.162 ...	22.228 ...	66
A. E. Symes, Ltd. ...	20,864 ...	20,994 ...	130
A. Roberts & Co., Ltd.	20,611 ...	20,736 ...	125
Rowley Bros. (1929), Ltd.	20,248 ...	20,366 ...	118
Unit Construction Co., Ltd.	19,998 ...	20,030 ...	32
Canonbury Construction Co., Ltd.	19,974 ...	20,124 ...	150
*A. T. Rowley, Tottenham	19,696 ...	19,806 ...	110
Architect's estimate		19,860	

(All of London.)

London.—Schoolroom, at the Goldie Leigh Homes, for the M.A.B.:—

A. H. Inns, Ltd., London	£537 0
F. E. Smith, Grays	530 0
E. Proctor & Sons, London	468 0
Thomas Carrington & Co., Ltd., Beckenham	459 0
G. H. Dibblin, Dartford	454 0
W. Mills & Sons (Builders and Contractors), Ltd., London	385 0
P. Miller & Son, Highfield-road, N., Dartford, Kent	360 17

London.—Provision of w.c.'s in staff changing blocks at the Orchard Hospital, for the M.A.B.:—

G. Jones & Son	£194
A. H. Inns, Ltd.	172
J. Scott Penn, Ltd.	147
E. Proctor & Sons	145
*G. H. Dibblin, Havelock-road, Dartford	117

(All of London.)

London.—Repairs to roofs, etc., at the Orchard Hospital, for the M.A.B.:—

G. Jones & Son	£194
G. H. Dibblin, Dartford	447
J. Scott Penn, Ltd.	389
A. H. Inns, Ltd.	381
*E. Proctor & Sons, 326, High-street, Plumstead, S.E.	204

(Remainder of London.)

London.—Alterations to entrance at the White Oak, for the M.A.B.:—

A. H. Inns, Ltd.	£540 0
Frost & Sheehan, Ltd.	520 3
J. W. Ellingham, Ltd., Dartford	475 0
G. H. Dibblin, Dartford	469 0
W. F. Blay, Ltd., Dartford	395 0
G. Coe, Chislehurst	390 0
L. Kazak & Co.	357 10
C. H. Boyd & Son, Ltd.	342 0
Thomas Carrington & Co., Ltd., Beckenham	335 0
*E. Proctor & Sons, 326, High-street, Plumstead, S.E.	332 0

(Remainder of London.)

London.—Taking down, rebuilding and underpinning part of the administrative block at the Northern Hospital, Winchmore Hill, N.21, for the M.A.B. Engineer-in-Chief:—

*W. T. E. Duncan, Waltham Abbey £759

Loughborough.—Extensions to the Liberal Club, Baxter Gate. Messrs. Jones & Parkinson, architects, 8, St. Martin's, Leicester:—

*A. Faulks, Loughborough.

Lydd.—Six houses in Station-road, for T.C. Mr. E. A. Jackson, L.R.I.B.A., chartered architect, Ashford:—

Jenner & Sons, Folkestone	£3,375
Philcox & Ellis, New Romney	2,670
G. Bates & Sons, Lydd	2,565
D. Godden & Sons, Hamstreet	2,565
*G. Barton, Littlestone and Sittingbourne	2,360

Malling.—Repairs and erection of a brick and slate distributor house at the Council's Outfall Works, Eccles, Aylesford, for R.D.C. Mr. S. L. Bundy, surveyor:—

—. Cornwell, Burham	£204 6
H. Ballard, High-street, Aylesford	203 0
G. Pearce & Sons, Maidstone	192 0
A. Burren, Eccles, Aylesford	177 10
*J. French & Sons, Barming, near Maidstone	144 0

Manchester.—Improvements to the "Bull's Head," Ashton Old-road, and Barmouth-street, Openshaw, for Messrs. Hyde's Queen's Brewery, Ltd. Messrs. Graves & Ellerton, architects, 80, Mosley-street, Manchester:—

*T. Gaskell & Co., Withington

Manchester.—Alterations and improvements at Diocesan Church House, 90, Deansgate, for the Trustees of the Diocesan Church Society. Mr. Robert Martin, L.R.I.B.A., architect, 90, Deansgate:—

*L. Fairclough, Ltd., Adlington, near Chorley.

Manchester.—Additions to premises, Cheetham Hill-road and Greenhill-road, Cheetham, and additions to premises, corner of Corporation-street and Cannon-street, for the Refuge Assurance Co., Ltd. Mr. Stanley Birkett, architect, 16, John Dalton-street:—

*W. Thorpe & Sons, Ltd., Cornbrook, Manchester.

Manchester.—Additions and installation of a central heating system, Mansfield-street Municipal School, for the E.C.:—

*Tinker & Young, Ltd., Manchester ... £1,878

Manchester.—Additions to the Claremont-road Municipal School, for the E.C.:—

*H. Green & Sons, Manchester.

Manchester.—Shelter at the Boggart Hole, Clough, for the Parks Committee. Mr. H. Price, A.R.I.B.A., City Architect:—

*T. Penny & Sons, Ltd.
Excavator Drainers—*J. A. Godfrey & Co.
Plumbers, Glaziers and Gasfitters—*J. Turton & Sons.
Slater—*Royle.
Plasterers and Painters—*Pilling Bros.
(All of Manchester.)

Manchester.—Refreshment pavilion at the Cringle Fields, for the Parks Committee. Mr. H. Price, A.R.I.B.A., City Architect:—

*H. Green & Son.
Masons—*F. & J. Halliwell.
Carpenters and Joiners—*J. & J. Parish, Ltd.
Slaters—*F. Brown & Son.
Plumber, Glazier and Gasfitter—*A. Tinker.
Plasterers and Painters—*J. & S. Howarth.
(All of Manchester.)

Manchester.—Shelter in Sunny Brow-park, for the Parks Committee. Mr. H. Price, A.R.I.B.A., City Architect:—

*Normanton's, Ltd.
Mason—*W. Radcliffe & Sons, Ltd.
Carpenter and joiner—*W. Richardson & Co.
Slater—*Manchester Slate Co. (1927), Ltd.
Plumber, glazier and gasfitter—*J. Turton & Sons.
Painter—*Chas. Bell.
(All of Manchester.)

Manchester.—Erection of Levenshulme Baths, for the Baths Committee. Mr. J. H. Price, A.R.I.B.A., City Architect:—

*Mather & Ellis.
Slater—*Executors of J. Toft.
Carpenter and Joiner—*F. C. Heys.
Plumber and glazier—*A. J. Heron.
Plasterer and painter—*W. J. Roberts.
Steelwork—*J. Webb & Sons.
(All of Manchester.)

Manchester.—For (*a*) heating installation at Aspinal Municipal school; and (*b*) heating installations at Levenshulme High school for Girls, for the E.C. Mr. H. Price, A.R.I.B.A., City Architect:—

*J. Turton & Sons, Manchester.

Manchester.—Two shelters, Chorlton-park, for the Parks Committee Mr. H. Price, A.R.I.B.A., City Architect:—

*Normanton's Ltd.
Mason—*Alex MacKay
Carpenter and joiner—*F. C. Heys.
Slater—*Manchester Slate Co. (1927), Ltd.
Plumber, glazier and gasfitter—*J. Turton & Sons.
Plasterer and painter—*Chas. Bell.
(All of Manchester.)

Manchester.—Shelter in Phillips-park, for the Parks Committee. Mr. H. Price, A.R.I.B.A., City Architect:—

*Normanton's, Ltd.
Mason—*F. M. & H. Nuttall.
Carpenter and joiner—*W. Richardson & Co.
Slater—*Manchester Slate Co. (1927), Ltd.
Glazier and gasfitter—*Richard Crabtree.
Plasterer and painter—*Lomas Bros.
(All of Manchester.)

Manchester.—Shelter, New Moston recreation ground, for the Parks Committee. Mr. H. Price, A.R.I.B.A., City Architect:—

*A. Fenton.
Mason—*J. & J. Halliwell.
Slater—*Beaumont's (Manchester), Ltd.
Plumber, glazier and gasfitter—*W. Peak.
Plasterer and painter—*E. & J. Pilling Bros.
(All of Manchester.)

Mansfield.—Alterations and additions to the "Green Dragon" hotel, for the Home Brewery Co., Ltd.. Milton-street, Nottingham. Messrs. Baily & Eberlin, F. & A.R.I.B.A., architects, 44, Parliament-street, Nottingham:—

*T. Smith, Mansfield £2,097

Middlesbrough.—100 houses, on the Whinney Banks estate, for the T.C.:—

‡Gilbert, Long, Ltd. £33,074

Nantwich.—Additions and alterations to the casual wards at the Poor Law Institution, for the B.G. Mr. C. E. Davenport, architect. Quantities by the architect:—

Joseph Cooke, Newcastle (Staffs)	£740 10
Thomas Smith & Son, Crewe	668 0
*J. T. Gresty & Sons, Willaston, Nantwich	649 0

Nantwich.—Additions and alterations to the casual wards at the Poor Law Institution, for the B.G.:—

*J. T. Gresty & Sons, Nantwich £649

Norfolk.—For (*a*) new junior and infants' school and teachers' house at Freethorpe, and (*b*) new junior and infants' school at Halvergate, for the Norfolk E.C. Mr. C. W. Bullen, architect. Quantities by the architect:—

(*a*)—
*J. Brock, Freethorpe £3,617 2 11
(*b*)—
*H. Jones, Halvergate 1,758 10 5

Northallerton.—Further extension to the south wing of the County Hall, for the North Riding C.C.:—

*Armitage & Hodgson, Camp-road, Leeds £7,337 10

Pontefract.—48 non-parlour houses at Airedale, near Castleford, for the R.D.C. Messrs. Tennant & Smith, architects:—

Builders—
*Barber & Heseltine, Pontefract ... £7,640 19
Joiners—
*T. Ward & Son, Pontefract 3,164 16
Tiler—
*J. Hargrave, York 688 4
Plumbers and glaziers—
*Atkin & Featherstone, Glasshoughton, Castleford 1,632 0
Plasterers—
*F. Beighton & Son, Castleford 1,082 5
Painter—
*E. Priestley, Pontefract 264 0
Roads and sewers—
*Barber & Heseltine, Pontefract ... 826 6

Potterspury.—Seven houses, for the R.D.C.:—

J. C. Tarry, Newport Pagnell	£1,545
J. S. Cowley & Son, Stony Stratford	1,500
H. H. Robinson, Roade	1,492
J. H. Fountaine, Stony Stratford	1,469
—. Lepper, Paulerpury	1,436
C. E. Ivens, Lichborough	1,438
*G. J. Grundon, Greens Norton	1,398

(Subject to sanction of M.H.)

Reading.—Cattle pens, unloading bays, and the paving and draining in connection with the improvement of the cattle market, for the C.B.:—

*McCarthy E. Fitt £3,172 11

Sheffield.—Pavilion at Firth-park secondary school playing fields, Barnsley-road and extension of pavilion at King Edward VII school playing fields, Whiteley Wood, for the T.C. Mr. W. G. Davies, F.R.I.B.A., City Architect:—

Firth Park—
*W. Marlow & Sons, Ltd., Holme-lane, Sheffield £1,053
King Edward VII.—
*D. O'Neill & Son, Solly-street, Sheffield 1,038

Shipley.—Tennis pavilion at the Northcliff Playing Fields, for the U.D.C.:—

Mason's work—
*W. Butterworth £225
Joiners' work—
*J. Copley 140
Slaters' work—
*E. & J. Brook 42
Plumbers' work—
*Wigglesworth & Crossley 115

Skelmanthorpe.—Bakehouse for the Co-operative Society, Ltd. Mr. H. Lodge, architect, Huddersfield-road, Skelmanthorpe, near Huddersfield:—

*R. Lockwood, Throngsbridge.
Joiners—*M. & J. Burton, Clayton West.
Plumber—*Geo. Ellis, Skelmanthorpe.
Slater—*T. B. Tunnacliffe, Huddersfield.

Sowerby.—16 houses on the Beechwood housing site, for the U.D.C. Mr. J. Eastwood, surveyor:—

Masons' and bricklayers' work—J. T. Akroyd, 5, Melrose-terrace, Elland.
Carpenters' and joiners' work—J. Hawkyard & Sons, Ltd., Timber-street Saw Mills, Elland.
Plumbers work—A. Booth, Grange Works, Sowerby Bridge.
Slaters' and Plasterers' work—Pickles Bros., 21, Woodhouse-lane, Leeds.
Painters' work—W. Lumb & Son, 13, Town Hall-street, Sowerby Bridge.
Electricians' work—J. Harrison & Co., 253, King Cross, Halifax.

Stoke-on-Trent.—Sub-station in Garner-street, for the T.C.:—

*Harper Brothers, Harpfield £675

Stretford.—Provision of w.c.'s, baths, hot water supply and wash-basins at premises, 381-395, Barton-road, for the U.D.C.:—

*J. H. Rogerson & Co. £204

Stretford.—Exterior painting of houses, for the U.D.C.:—

50 houses, King's-road—
*W. Gowling £125
54 houses, Derbyshire-lane West—
*D. Gosling & Co. 139

Sunderland.—Hospital on Newcastle-road, for the Monkwearmouth and Southwick Hospital Board of Management. Messrs. W. & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-street, Sunderland :—

*Henderson Brothers, South Shields.

Swadlincote.—Workshop and store in High-street, for Messrs. W. Jones Harvey & Co. Messrs. Arthur Eaton & Son, architects, 6, The Strand, Derby :—

*S. Tissington, Woodville, Derbyshire.

Thorne (Yorks).—Extensions and improvements to the White Hart Inn. Messrs. Garside & Pennington, F.R.I.B.A., architects, Ropergate, Pontefract :—

*W. Firth, Ltd., Doncaster.
Heating—*L. Matthews & Sons, Leeds.
Plaster—*Leeds Fibrous Plaster Co., Leeds.

Thurnscoe.—Conversion of 34 privies into water closets at 1-8, Grange-terrace, 1-9, Clarence-terrace, 1-17, Lidget-lane, and 39-55, Lidget-lane, for the U.D.C. Mr. F. O. Brookes, Sanitary Inspector. Thornley-crescent :—

Melling Bros., Ltd., Sheffield	£425
F. Lund, Goldthorpe	357
H. Gough, Goldthorpe	367
W. J. Davies, Deepcar	323
M. Wilson, Thurnscoe	314
C. Wilson & Sons, Thurnscoe	309
E. Plant, Sheffield	299
E. Grant, Chapeltown	289
J. H. Waller, South Elmsall	287
N. Grant, Doncaster	270
H. Cooper & Son, Conisboro'	269
W. Rawlin, Hoyland	267
*J. H. Hughes, Worsboro' Dale	263

Torpoint.—Repairs and improvements to the central heating apparatus, etc., at Torpoint Vicarage, for Rev. A. W. Pender. Mr. H. R. Venning, L.R.I.B.A., architect and surveyor, Midland Bank-chambers, Liskeard :—

C. R. Paul, Torpoint	£482 0
A. Pengelly, Torpoint	408 0
*Brock & Kressinger, Liskeard	389 10

Tring.—Interior painting of the Council's houses in Wingrave-road and on Bunstrux-hill, for the U.D.C. :—

A. W. Crockett	£192 17 6
W. J. Thresher, Aylesbury	90 15 0
*W. Horn & Son	179 0 0
J. Hedges & Sons	183 7 6
H. Mills, Redbourn	131 0 0
Surveyor's estimate	200 0 0

Wakefield.—Four houses in Flanshaw-lane, Mr. J. P. Firth, architect :—
*G. Crook & Sons, Ltd.

Waterfoot.—Alterations to premises at the Bethel Baptist Church and Sunday Schools, for the Trustees. Mr. A. Brocklehurst, F.R.I.B.A., architect, St. James-chambers, Waterfoot—
*J. R. Holt, Waterfoot.

West Bromwich.—56 houses adjoining Oak-lane, for the Corporation. Mr. A. G. Greatorex, Borough Surveyor :—
*G. Sorrill, Oak-road, West Bromwich.

Willesden.—Renovations, etc., including complete internal and external re-decoration, the installation of electric light, and the replacement of all sanitary fittings, at 2, West Ella-road, for the M.W.B. :—

J. Myring & Co.	£267 17 6
H. & E. Lea, Ltd.	238 0 0
Sims & Sims	214 17 6
*I. White & Co.	205 0 0

Worthing.—Construction of a concrete walling and artificial stonework on the Western portion of the Marine-parade, for the T.C. Borough Surveyor :—

Angell Construction Co., Ltd., Bognor	£6,287
Longley & Co., Crawley	4,881
Harrison's, Ltd., London	4,595
Sandell & Son, Worthing	4,296
Limpus & Son, Hove	4,1[illegible]

Worthing.—Mortuary at the rear of the Municipal Offices, Chapel-road, for the T.C. Borough Surveyor :—

F. Sandell & Sons, Worthing	£945
*W. Limpus & Sons, Brighton	864

York.—Painting at the Infants' Home, Hull-road, and the Children's Homes, 68, Wigginton-road, and 120, Haxby-road, for the B.G. Mr. G. Sykes, clerk :—
*G. E. Pink & Son, 10, Neville-street, Haxby-road, York.